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Sample Submission Form

Amino Acid Laboratory
University of California, Davis
1020 Vet Med 3B
1089 Veterinary Medicine Drive
Davis, CA 95616
Tel: (530)752-5058, Fax: (530)752-4698

UC CUSTOMERS ONLY:
Non-federal funds ID/Account Number
to bill: _____

<http://www.vetmed.ucdavis.edu/vmb/aal/aal.html>

Vet/Tech Contact: **B6**

Company Name: Tufts Cummings School of Vet Med - Clinical Pathology Laboratory

Address: 200 Westboro Road
North Grafton, MA 01536

Email: clinpath@tufts.edu; cardiovvet@tufts.edu

Tel: 508-887-4669 Fax: 508-839-7936

Billing Contact: **B6** TAX ID: _____

Email: **B6** Tel: **B6**

Patient Name: **B6**

Species: canine

Owner's Name: **B6**

Sample Type: Plasma Whole Blood Urine Food Other: _____

Test Items: Taurine Complete Amino Acid Other: _____

Taurine Results (nmol/ml)

Plasma: **B6** Whole Blood: **B6** Urine: _____ Food: _____

Reference Ranges (nmol/ml)

	Plasma		Whole Blood	
	Normal Range	No Known Risk for Taurine Deficiency	Normal Range	No Known Risk for Taurine Deficiency
Cat	80-120	>40	300-600	>200
Dog	60-120	>40	200-350	>150

B6
B6 Canine
9/19/2018 10:45 AM
TAURINE PANEL
Lithium Heparin

From: PFR Event <pfpreventcreation@fda.hhs.gov>
To: Cleary, Michael *; HQ Pet Food Report Notification; B6
Sent: 5/20/2019 2:56:40 PM
Subject: Taste of the Wild Pacific Salmon Grain Free: Darcy Adin - EON-388244
Attachments: 2067171-report.pdf

A PFR Report has been received and PFR Event [EON-388244] has been created in the EON System.

A "PDF" report by name "2067171-report.pdf" is attached to this email notification for your reference.

Below is the summary of the report:

EON Key: EON-388244

ICSR #: 2067171

EON Title: PFR Event created for Taste of the Wild Pacific Salmon Grain Free, Red Barn Bully sticks and slices, Sam's Club Chicken Jerky, Nubs Chicken Treats, Nudges Chicken Jerkey; 2067171

AE Date	03/19/2019	Number Fed/Exposed	1
Best By Date		Number Reacted	1
Animal Species	Dog	Outcome to Date	Stable
Breed	American Pit Bull Terrier		
Age	B6 Years		
District Involved	PFR B6 DO		

Product information

Individual Case Safety Report Number: 2067171

Product Group: Pet Food

Product Name: Taste of the Wild Pacific Salmon Grain Free, Red Barn Bully sticks and slices, Sam's Club Chicken Jerky, Nubs Chicken Treats, Nudges Chicken Jerkey

Description: B6 presented to UF Cardiology for evaluation of a heart murmur and arrhythmia discovered by his primary care veterinarian. B6 had a recent history of a progressively worsening cough. On ECG, B6 had intermittent ventricular premature complexes (right bundle branch block). B6 was diagnosed with mitral regurgitation with systolic dysfunction.

Submission Type: Initial

Report Type: Adverse Event (a symptom, reaction or disease associated with the product)

Outcome of reaction/event at the time of last observation: Stable

Number of Animals Treated With Product: 1

Number of Animals Reacted With Product: 1

Product Name	Lot Number or ID	Best By Date
Sam's Club Chicken Jerky		
Nudges Chicken Jerkey		
Red Barn Bully sticks and slices		
Nubs Chicken Treats		

Sender information

Darcy Adin
2015 SW 16th Ave
2015 SW 16th Avenue
Gainesville, FL 32608
USA

To view this PFR Event, please click the link below:

<https://eon.fda.gov/eon//browse/EON-388244>

To view the PFR Event Report, please click the link below:

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jspa?decorator=none&e=0&issueType=12&issueId=405421>

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From: PFR Event <pfpreventcreation@fda.hhs.gov>
To: Cleary, Michael *; HQ Pet Food Report Notification; B6
Sent: 5/20/2019 2:57:01 PM
Subject: Honest Kitchen Turkey dehydrated: Darcy Adin - EON-388245
Attachments: 2067168-report.pdf

A PFR Report has been received and PFR Event [EON-388245] has been created in the EON System.

A "PDF" report by name "2067168-report.pdf" is attached to this email notification for your reference.

Below is the summary of the report:

EON Key: EON-388245

ICSR #: 2067168

EON Title: PFR Event created for Honest Kitchen Turkey dehydrated, N and D Venison and Quinoa dry, Taste of the Wild Prey (Angus Beef and Lentils); 2067168

AE Date	03/13/2019	Number Fed/Exposed	1
Best By Date		Number Reacted	1
Animal Species	Dog	Outcome to Date	Stable
Breed	Great Dane		
Age	B6 Years		
District Involved	PFR B6 DO		

Product information

Individual Case Safety Report Number: 2067168

Product Group: Pet Food

Product Name: Honest Kitchen Turkey dehydrated, N and D Venison and Quinoa dry, Taste of the Wild Prey (Angus, Beef, and Lentils)

Description: A few days before B6 was seen by UF Cardiology, he presented to a specialty clinic for a minor orthopedic complaint, at which time an ECG revealed an abnormal rhythm. On B6 B6 became inappetent and vomited twice. On B6 patient presented to primary care veterinarian, and on B6 patient presented to an emergency clinic where thoracic radiographs revealed mild to moderate cardiomegaly. He was referred to cardiology on B6 where he was diagnosed with Dilated Cardiomyopathy. Anorexia resolved after 2 weeks.

Submission Type: Initial

Report Type: Adverse Event (a symptom, reaction or disease associated with the product)

Outcome of reaction/event at the time of last observation: Stable

Number of Animals Treated With Product: 1

Number of Animals Reacted With Product: 1

Product Name	Lot Number or ID	Best By Date
N and D Venison and Quinoa dry		
Honest Kitchen Turkey dehydrated		
Taste of the Wild Prey (Angus, Beef, and Lentils)		

Sender information

Darcy Adin
2015 SW 16th Ave
2015 SW 16th Avenue
Gainesville, FL 32608
USA

To view this PFR Event, please click the link below:

<https://eon.fda.gov/eon//browse/EON-388245>

To view the PFR Event Report, please click the link below:

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jspa?decorator=none&e=0&issueType=12&issueId=405422>

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From: PFR Event <pfpreventcreation@fda.hhs.gov>
To: Cleary, Michael *; HQ Pet Food Report Notification; B6
Sent: 5/20/2019 2:57:23 PM
Subject: Natural Balance Venison: Darcy Adin - EON-388246
Attachments: 2067170-report.pdf

A PFR Report has been received and PFR Event [EON-388246] has been created in the EON System.

A "PDF" report by name "2067170-report.pdf" is attached to this email notification for your reference.

Below is the summary of the report:

EON Key: EON-388246

ICSR #: 2067170

EON Title: PFR Event created for Natural Balance Venison Sweet Potatoes, Pedigree chicken and rice, Dr. Lyon's dental treat (mint), Smart Bones Smart Sticks (peanut butter), Cosequin DS; 2067170

AE Date	04/03/2019	Number Fed/Exposed	1
Best By Date		Number Reacted	1
Animal Species	Dog	Outcome to Date	Stable
Breed	Sheepdog - Shetland		
Age	10 Years		
District Involved	PFR B6 DO		

Product information

Individual Case Safety Report Number: 2067170

Product Group: Pet Food, Other

Product Name: Natural Balance Venison, Sweet Potatoes, Pedigree chicken and rice, Dr. Lyon's dental treat (mint), Smart Bones Smart Sticks (peanut butter), Cosequin DS

Description: B6 ws referred to UF Cardiology after her primary care veterinarian noted a Grade 2/6 left systolic murmur. She has been slowing down some over the past year, but still runs and plays regularly. B6 has a sinus arrhythmia. Patient was diagnosed with primary mitral regurgitation with systolic dysfunction.

Submission Type: Initial

Report Type: Adverse Event (a symptom, reaction or disease associated with the product)

Outcome of reaction/event at the time of last observation: Stable

Number of Animals Treated With Product: 1

Number of Animals Reacted With Product: 1

Product Name	Lot Number or ID	Best By Date
Natural Balance Venison, Sweet Potatoes		
Dr. Lyon's dental treat (mint)		
Pedigree chicken and rice		
Cosequin DS		

Sender information

Darcy Adin
2015 SW 16th Ave
2015 SW 16th Avenue
Gainesville, FL 32608
USA

To view this PFR Event, please click the link below:

<https://eon.fda.gov/eon//browse/EON-388246>

To view the PFR Event Report, please click the link below:

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jsps?decorator=none&e=0&issueType=12&issueId=405423>

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From: PFR Event <pfpreventcreation@fda.hhs.gov>
To: Cleary, Michael *; HQ Pet Food Report Notification; [B6]
Sent: 5/20/2019 3:04:47 PM
Subject: Blue Buffalo Large Breed Adult: Darcy Adin - EON-388253
Attachments: 2067174-report.pdf

A PFR Report has been received and PFR Event [EON-388253] has been created in the EON System.

A "PDF" report by name "2067174-report.pdf" is attached to this email notification for your reference.

Below is the summary of the report:

EON Key: EON-388253

ICSR #: 2067174

EON Title: PFR Event created for Blue Buffalo Large Breed Adult, Paul Newman Dog Biscuits various, Spring Hill Fish Oil; 2067174

AE Date	[B6]	Number Fed/Exposed	1
Best By Date		Number Reacted	1
Animal Species	Dog	Outcome to Date	Died Euthanized
Breed	Doberman Pinscher		
Age	11 Years		
District Involved	PFR [B6] DO		

Product information

Individual Case Safety Report Number: 2067174

Product Group: Pet Food, Other

Product Name: Blue Buffalo Large Breed Adult, Paul Newman Dog Biscuits, various, Spring Hill Fish Oil

Description: Patient had been stable on [B6] for dilated cardiomyopathy for the past two years prior to presentation at UF Cardiology. A few weeks prior to presentation, he was started on [B6] for coughing episodes. The day of presentation, an EKG performed at the primary care veterinarian showed a ventricular arrhythmia. On presentation to UF Cardiology, patient had collapsed suddenly and was in cardiopulmonary arrest. After CPR and [B6] he converted to sinus tachycardia. Patient was diagnosed with dilated cardiomyopathy. [B6] was euthanized two days later due to gastric dilation volvulus (GDV).

Submission Type: Initial

Report Type: Adverse Event (a symptom, reaction or disease associated with the product)

Outcome of reaction/event at the time of last observation: Died Euthanized

Number of Animals Treated With Product: 1

Number of Animals Reacted With Product: 1

Product Name	Lot Number or ID	Best By Date
Blue Buffalo Large Breed Adult		
Paul Newman Dog Biscuits, various		
Spring Hill Fish Oil		

Sender information

Darcy Adin
2015 SW 16th Ave
2015 SW 16th Avenue
Gainesville, FL 32608
USA

To view this PFR Event, please click the link below:

<https://eon.fda.gov/eon//browse/EON-388253>

To view the PFR Event Report, please click the link below:

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jspx?decorator=none&e=0&issueType=12&issueId=405430>

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From: PFR Event <pfpreventcreation@fda.hhs.gov>
To: Cleary, Michael *; HQ Pet Food Report Notification; B6
Sent: 5/20/2019 3:05:09 PM
Subject: Pure Balance Salmon and Potato dry: Darcy Adin - EON-388254
Attachments: 2067175-report.pdf

A PFR Report has been received and PFR Event [EON-388254] has been created in the EON System.

A "PDF" report by name "2067175-report.pdf" is attached to this email notification for your reference.

Below is the summary of the report:

EON Key: EON-388254

ICSR #: 2067175

EON Title: PFR Event created for Pure Balance Salmon and Potato dry, 4Health Salmon and Potato canned, Milkbone peanut flavor dry mini treats, Spring Valley Fish Flax and Borage Oil, Good Morning Healthy Joints; 2067175

AE Date	02/20/2019	Number Fed/Exposed	1
Best By Date		Number Reacted	1
Animal Species	Dog	Outcome to Date	Stable
Breed	Cattle Dog - Australian (blue heeler, red heeler, Queensland cattedog)		
Age	10 Years		
District Involved	PFR-Florida DO		

Product information

Individual Case Safety Report Number: 2067175

Product Group: Pet Food, Other

Product Name: Pure Balance Salmon and Potato dry, 4Health Salmon and Potato canned, Milkbone peanut flavor dry mini treats, Spring Valley Fish, Flax, and Borage Oil, Good Morning Healthy Joints

Description: Patient presented to the UF Cardiology Service after roughly two weeks of coughing. When

coughing initially started, patient was seen by primary care veterinarian and was treated with [B6] again. He had [B6] Of [B6] presented to his primary care veterinarian and was diagnosed with Dilated Cardiomyopathy.

Submission Type: Initial

Report Type: Adverse Event (a symptom, reaction or disease associated with the product)

Outcome of reaction/event at the time of last observation: Stable

Number of Animals Treated With Product: 1

Number of Animals Reacted With Product: 1

Product Name	Lot Number or ID	Best By Date
Spring Valley Fish, Flax, and Borage Oil		
Milkbone peanut flavor dry mini treats		
Pure Balance Salmon and Potato dry		
Good Morning Healthy Joints		

Sender information

Darcy Adin
2015 SW 16th Ave
2015 SW 16th Avenue
Gainesville, FL 32608
USA

To view this PFR Event, please click the link below:
<https://eon.fda.gov/eon//browse/EON-388254>

To view the PFR Event Report, please click the link below:
<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jsps?decorator=none&e=0&issueType=12&issueId=405431>

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From: PFR Event <pfpreventcreation@fda.hhs.gov>
To: Cleary, Michael *; HQ Pet Food Report Notification; B6
Sent: 5/20/2019 3:05:29 PM
Subject: Acana Heritage Poultry dry: Darcy Adin - EON-388255
Attachments: 2067176-report.pdf

A PFR Report has been received and PFR Event [EON-388255] has been created in the EON System.

A "PDF" report by name "2067176-report.pdf" is attached to this email notification for your reference.

Below is the summary of the report:

EON Key: EON-388255

ICSR #: 2067176

EON Title: PFR Event created for Acana Heritage Poultry dry; 2067176

AE Date	02/14/2019	Number Fed/Exposed	1
Best By Date		Number Reacted	1
Animal Species	Dog	Outcome to Date	Stable
Breed	Shepherd Dog - German		
Age	4 Years		
District Involved	PFR-Florida DO		

Product information

Individual Case Safety Report Number: 2067176

Product Group: Pet Food

Product Name: Acana Heritage Poultry dry

Description: B6 presented to the UF Cardiology Service for a 5 month history of progressive exercise intolerance and increased respiratory rate and effort. Patient was diagnosed with Dilated Cardiomyopathy. She has been rechecked once 5/15/19 - clinically stable but no improvement noted on echocardiogram. Her blood taurine results were discordant so she has been on supplementation

Submission Type: Initial

Report Type: Adverse Event (a symptom, reaction or disease associated with the product)

Outcome of reaction/event at the time of last observation: Stable

Number of Animals Treated With Product: 1

Number of Animals Reacted With Product: 1

Product Name	Lot Number or ID	Best By Date
Acana Heritage Poultry dry		

Sender information

Darcy Adin
2015 SW 16th Ave
2015 SW 16th Avenue
Gainesville, FL 32608
USA

To view this PFR Event, please click the link below:

<https://eon.fda.gov/eon//browse/EON-388255>

To view the PFR Event Report, please click the link below:

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jspx?decorator=none&e=0&issueType=12&issueId=405432>

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From: PFR Event <pfpreventcreation@fda.hhs.gov>
To: Cleary, Michael *; HQ Pet Food Report Notification; B6
Sent: 5/20/2019 3:05:50 PM
Subject: Origins 6 Fish Grain Free dry: Darcy Adin - EON-388256
Attachments: 2067173-report.pdf

A PFR Report has been received and PFR Event [EON-388256] has been created in the EON System.

A "PDF" report by name "2067173-report.pdf" is attached to this email notification for your reference.

Below is the summary of the report:

EON Key: EON-388256

ICSR #: 2067173

EON Title: PFR Event created for Origins 6 Fish Grain Free dry, Dasuquin (Nutramax) Glucosamine MSM Chonroitin ASU; 2067173

AE Date	03/19/2019	Number Fed/Exposed	1
Best By Date		Number Reacted	1
Animal Species	Dog	Outcome to Date	Stable
Breed	Great Dane		
Age	7 Years		
District Involved	PFR-Florida DO		

Product information

Individual Case Safety Report Number: 2067173

Product Group: Pet Food, Other

Product Name: Origins 6 Fish Grain Free dry, Dasuquin (Nutramax) Glucosamine, MSM, Chonroitin, ASU

Description: B6 presented to UF Cardiology with a history of persistent cough for the past 2-3 months which acutely became more frequent with episodes of wheezing and hacking. Patient was diagnosed with atrial fibrillation and dilated cardiomyopathy.

Submission Type: Initial

Report Type: Adverse Event (a symptom, reaction or disease associated with the product)

Outcome of reaction/event at the time of last observation: Stable

Number of Animals Treated With Product: 1

Number of Animals Reacted With Product: 1

Product Name	Lot Number or ID	Best By Date
Dasuquin (Nutramax) Glucosamine, MSM, Chonroitin, ASU		
Origins 6 Fish Grain Free dry		

Sender information

Darcy Adin
2015 SW 16th Ave
2015 SW 16th Avenue
Gainesville, FL 32608
USA

To view this PFR Event, please click the link below:

<https://eon.fda.gov/eon//browse/EON-388256>

To view the PFR Event Report, please click the link below:

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jspx?decorator=none&e=0&issueType=12&issueId=405433>

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From: Jones, Jennifer L </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0f6ca12eaa9348959a4cbb1e829af244-Jennifer.Jo>
To: Rotstein, David; Palmer, Lee Anne; Queen, Jackie L; Carey, Lauren; Nemser, Sarah; Ceric, Olgica; Glover, Mark
Sent: 4/13/2018 10:39:47 AM
Subject: RE: another DCM: FW: Kirkland Signature Nature's Domain Turkey Meal and Sweet Potato Dog Food: [REDACTED] EON-351034

I'll start with MRx.

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Rotstein, David
Sent: Thursday, April 12, 2018 2:00 PM
To: Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>; Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>
Cc: Rotstein, David <David.Rotstein@fda.hhs.gov>
Subject: another DCM: FW: Kirkland Signature Nature's Domain Turkey Meal and Sweet Potato Dog Food: [REDACTED] EON-351034

David Rotstein, DVM, MPVM, Dipl. ACVP
CVM Vet-LIRN Liaison
CVM OSC/DC/CERT
7519 Standish Place
240-506-6763 (BB)



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From: PFR Event [<mailto:pfpreventcreation@fda.hhs.gov>]
Sent: Thursday, April 12, 2018 1:56 PM
To: Cleary, Michael * <Michael.Cleary@fda.hhs.gov>; HQ Pet Food Report Notification <HQPetFoodReportNotification@fda.hhs.gov> [REDACTED]
Subject: Kirkland Signature Nature's Domain Turkey Meal and Sweet Potato Dog Food: [REDACTED] EON-351034

A PFR Report has been received and PFR Event [EON-351034] has been created in the EON System.

A "PDF" report by name "2045680-report.pdf" is attached to this email notification for your reference.

Below is the summary of the report:

EON Key: EON-351034

ICSR #: 2045680

EON Title: PFR Event created for Kirkland Signature Nature's Domain Turkey Meal and Sweet Potato Dog Food; 2045680

AE Date	B6	Number Fed/Exposed	1
Best By Date		Number Reacted	1
Animal Species	Dog	Outcome to Date	Stable
Breed	Retriever - Golden		
Age	11 Years		
District Involved	PFR B6 DO		

Product information

Individual Case Safety Report Number: 2045680

Product Group: Pet Food

Product Name: Kirkland Signature Nature's Domain Turkey Meal and Sweet Potato Dog Food

Description: B6 was diagnosed with dilated cardiomyopathy and left sided congestive heart failure by the cardiology service at B6. Her disease has been stable. Due to reports of DCM related to taurine deficiency on grain free diets, a whole blood taurine level was submitted on 3/2/2018 by the cardiology service. Whole blood taurine was B6 (ref range 200-350, critical <150). owner was advised to stop current diet and start taurine supplementation.

Submission Type: Initial

Report Type: Adverse Event (a symptom, reaction or disease associated with the product)

Outcome of reaction/event at the time of last observation: Stable

Number of Animals Treated With Product: 1

Number of Animals Reacted With Product: 1

Product Name	Lot Number or ID	Best By Date
Kirkland Signature Nature's Domain Turkey Meal and Sweet Potato Dog Food		

Sender information

B6

B6

USA

Owner information

B6

To view this PFR Event, please click the link below:

<https://eon.fda.gov/eon/browse/EON-351034>

To view the PFR Event Report, please click the link below:

<https://eon.fda.gov/eon/EventCustomDetailsAction!viewReport.jspa?decorator=none&e=0&issueType=12&issueId=367422>

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From: Jones, Jennifer L </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0f6ca12eaa9348959a4cbb1e829af244-Jennifer.Jo>
To: [REDACTED] B6
Sent: 4/19/2018 11:45:47 AM
Subject: FDA case investigation for [REDACTED] B6 (EON-351034)
Attachments: 02-Vet-LIRN-NetworkProceduresVets-12.22.2015.pdf; 03-Vet-LIRN-NetworkProceduresOwners-12.22.2015.pdf

Good morning [REDACTED] B6

Thank you for submitting your consumer complaint to FDA. I'm sorry to hear about [REDACTED] B6 illness. As part of our investigation, we'd like to request:

- **Full Medical Records**

- Please email (preferred) or fax (301-210-4685) a copy of [REDACTED] B6 entire medical history (not just this event).

- **Do you have any leftover product? If so, is there a lot or best by date?**

I attached a copy of our Vet-LIRN network procedures. The procedures describe how Vet-LIRN operates and how veterinarians help with our case investigations.

Please respond to this email so that we can initiate our investigation.

Thank you kindly,
Dr. Jones

Jennifer L. A. Jones, DVM

Veterinary Medical Officer
U.S. Food & Drug Administration
Center for Veterinary Medicine
Office of Research
Veterinary Laboratory Investigation and Response Network (Vet-LIRN)
8401 Muirkirk Road, G704
Laurel, Maryland 20708
new tel: 240-402-5421
fax: 301-210-4685
e-mail: jennifer.jones@fda.hhs.gov
Web: <http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>





Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

Network Procedures for Veterinarians

1. Introduction

The purpose of this Network Procedure is to facilitate basic interactions between the Vet-LIRN Program Office (VPO) and veterinarians participating in Vet-LIRN case investigations. General procedures such as information flow, sample handling procedures, submission of reports and billing for services are discussed. The focus of most Vet-LIRN case investigations is on diagnostic samples, although occasionally animal food samples will also be submitted. Animal food testing conducted after receiving a consumer complaint is typically handled by FDA's Office of Regulatory Affairs (ORA) Laboratories or accredited laboratories.

- 1.1 In the case of Vet-LIRN investigations, the government is the client.
 - 1.1.1 The government is requesting assistance in its investigation, and is requesting tests or services to be performed by your clinic during this investigation.
 - 1.1.2 The government will pay for these services.
 - 1.1.3 The owner is helping with the government's investigation of a regulated product.
 - 1.1.4 The goal of the investigation is to determine if the product is at fault and why.
 - 1.1.5 The government's investigation may not provide a definitive diagnosis for the patient's illness.

2. Case Background – Consumer complaint

- 2.1 Vet-LIRN obtains information about the cases we investigate from 3 main sources,
 - 2.1.1 Consumer complaints (cc) - obtained by FDA Consumer Complaint Coordinators by phone
 - 2.1.2 Electronic consumer complaint submissions through FDA's Food Safety Reporting Portal, and
 - 2.1.3 Vet-LIRN partner laboratories.

NOTE: Generally, the information received in a consumer complaint is not kept confidential. In most cases, only protected personal information (such as names and addresses) is withheld in an effort to prevent the complaint from being traced back to the individual who submitted it.



Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

3. Communications

- 3.1 VPO will discuss the case with the referring veterinarian and or the owner.
- 3.2 VPO evaluates the case history and determines a need for follow up testing to determine if the food (or drug) is the cause of the illness or death.
- 3.3 VPO contacts the appropriate member laboratory(-ies) (chosen based on location and capabilities) and provides initial information
 - 3.3.1 In some cases only partial history is available
 - 3.3.2 Follow up information will be sent as it becomes available.
- 3.4 VPO proposes the tests to be conducted and prepares billing documents.
- 3.5 VPO makes arrangements with the veterinarian to obtain and ship samples.
 - 3.5.1 VPO receives test results and forwards the results to the veterinarian who will then communicate the results to the owner.

4. Case history

- 4.1 A complete medical history is essential,
 - 4.1.1 age, sex, breed, animal's ID/name,
 - 4.1.2 other animals affected,
 - 4.1.3 duration of problem, lesion distribution (diagrams or photos are welcome),
 - 4.1.4 treatment of problem (especially dose and duration of therapy) and response to treatment.
 - 4.1.5 concomitant drugs or dietary supplements administered (not used for treatment of the reaction, but administered for other reasons at the same time or within a short time of the problem occurrence).
- 4.2 Vet-LIRN Case Numbers:
 - 4.2.1 Include Vet-LIRN case number in all correspondence.
 - 4.2.2 E-mail: include the Vet-LIRN case number as the first part of the subject line. This will help archiving data for each case.
- 4.3 Electronic submission of medical records and laboratory results is preferred.
- 4.4 Histories can also be submitted by FAX to Vet-LIRN (301-210-4685).
- 4.5 Information about follow-up visits related to the investigation and additional laboratory reports should be provided as soon as possible. Phone calls are very useful for



Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

discussing cases in depth, but should be followed up with the medical records and lab reports.

- 4.5.1 Due to time difference around the country, email communication is often the best way to assure information is transferred in a timely manner.

5. Services Requested by VPO

5.1 Services typically tests will fall into 3 categories:

- 5.1.1 Office Examination
- 5.1.2 Clinical laboratory samples
- 5.1.3 Pathology

5.2 Office Examination:

- 5.2.1 To evaluate the current status of the patient.
- 5.2.2 To obtain samples from the patient for further analysis (blood, urine, feces).

5.3 Clinical Laboratory Samples:

- 5.3.1 VPO may ask for repeat analysis of new samples to be run either by the veterinary hospital, or by its usual testing laboratory.
- 5.3.2 Typical tests include clinical hematology, microbial cultures, urinalysis, and fecal examination.
- 5.3.3 Additional testing may be requested and the samples sent to a Vet-LIRN network laboratory.

5.4 Pathology:

- 5.4.1 Either submit the entire carcass or conduct a routine necropsy examination. Record your findings in detail and submit. Histopathology and microbiological cultures as appropriate.
 - 5.4.1.1 Describe all lesions – location, color, size, texture.
 - 5.4.1.2 Culture lesions or intestinal contents as deemed appropriate based on the history.
 - 5.4.1.3 Save tissues for histopathology- be sure to use 10:1 formalin to tissue mass.
- 5.4.2 Histopathology tissues (preserve in 10% neutral buffered formalin 10:1 ratio fixative to tissue):



Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

5.4.2.1 thyroid, thymus, lung, heart, liver, spleen, adrenal, kidney, pancreas, stomach, duodenum, jejunum, ileum, colon, urinary bladder, skeletal muscle, brain.

5.4.2.2 Request a duplicate set of H&E for submission to VPO for archiving.

5.5 Toxicology:

5.5.1 Freeze and hold tissues if there is any indication that a toxic substance may be involved:

5.5.1.1 brain (for organophosphates and carbamates),

5.5.1.2 eyes, liver, kidney, brain, stomach content, fat,

5.5.1.3 if available, serum, EDTA blood, urine.

5.5.2 Following a review of histopathology, VPO may select tissues to be analyzed and request that tissues be sent to a Vet-LIRN laboratory.

5.5.3 When the case is closed by VPO, samples can be disposed of. When in doubt, please ask.

5.5.3.1 The animal's remains can be disposed of following the laboratories' customary procedures.

6. Sample submissions

6.1 Normally, VPO prefers that the veterinarian, not the pet owner submit samples.

6.2 Arrangements for transport should be made with the VPO (see additional shipping instructions).

6.3 A Vet-LIRN Sample Submission Form, given by VPO to the veterinarian, should be provided to the veterinarian and should accompany all samples being sent to our Vet-LIRN laboratory, listing the recommended tests.

6.4 A Shipping Inventory Sheet, given by VPO to the veterinarian, should also be provided by VPO and should be submitted with all samples. This form will be filled out and faxed to the VPO (301-210-4685) by the receiving Vet-LIRN laboratory.

6.5 Vet-LIRN case numbers should be provided by the VPO and should be included on all samples and reports.

6.5.1 Rarely, an owner will deliver a specimen or an animal for necropsy directly to the participating laboratory. Vet-LIRN should notify the lab to expect the owner if this happens and will provide appropriate forms.



Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

7. Sample types that Vet-LIRN may request from the Veterinarian

- 7.1 Entire bodies (fresh or frozen)
- 7.2 Organs from necropsy (fresh, frozen or formalin fixed)
- 7.3 Clinical samples (serum, blood, urine, feces, biopsy samples, cultures)
- 7.4 Food samples (open bag products from home)

8. Reporting

- 8.1 All reports from Vet-LIRN testing labs are submitted to VPO.
- 8.2 VPO will forward reports to the veterinarian, who should discuss the results with the owner.
- 8.3 If appropriate, VPO will forward reports to the owner.

9. Communications with Owners

9.1 General:

- 9.1.1 VPO usually will have contacted the owner to request permission and assistance in the investigation.
- 9.1.2 Vet-LIRN's investigation is focused on determining if a regulated product is the cause of the animal's illness. The testing requested by Vet-LIRN may not provide a definitive diagnosis
- 9.1.3 VPO will provide testing results to the veterinarian for communication to the owner. This ensures that:
 - 9.1.3.1 Owners can be counseled on the interpretation of the test results,
 - 9.1.3.2 Appropriate medical follow-up care based on test results can be recommended by the owner's veterinarian.



Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

10. Billing

- 10.1 Vet-LIRN VPO can only pay for services which were requested and approved by VPO. Vet-LIRN cannot pay for treatment, or for diagnostic testing outside of the scope of the investigation.
- 10.2 Procurement and Billing Process: The following process needs to be followed in order to adhere to government regulations.
 - 10.2.1 The veterinarian must provide estimates so a Purchase Request can be prepared. Estimates should include items such as office visit(s), in-house diagnostic test costs, biopsy or pathology costs and additional charges such as potential shipping charges.
 - 10.2.2 A billing contact must be provided: include name, address, telephone + fax numbers, and email.
 - 10.2.3 Approved Purchase Request is required prior to beginning service.
 - 10.2.4 Additional services may only be initiated after authorized by Vet-LIRN, but must first be approved by VPO with an additional Purchase Request.
 - 10.2.5 Hospitals must provide an invoice to Vet-LIRN upon the completion of work before they can be paid. VPO is tax exempt. Taxes should be removed from all charges. The invoice must include the Vet-LIRN case number.

From: Jones, Jennifer L </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0f6ca12eaa9348959a4cbb1e829af244-Jennifer.Jo>
To: Rotstein, David; Palmer, Lee Anne; Queen, Jackie L; Carey, Lauren; Nemser, Sarah; Ceric, Olgica; Glover, Mark
Sent: 4/20/2018 12:59:09 PM
Subject: RE: another DCM: FW: Kirkland Signature Nature's Domain Turkey Meal and Sweet Potato Dog Food: B6 EON-351034

The MRx are pending. FYI-I spoke with the owner this morning, and there is no food left for testing.

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Jones, Jennifer L
Sent: Friday, April 13, 2018 6:40 AM
To: Rotstein, David <David.Rotstein@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>; Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>
Subject: RE: another DCM: FW: Kirkland Signature Nature's Domain Turkey Meal and Sweet Potato Dog Food: B6 - EON-351034

I'll start with MRx.

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Rotstein, David
Sent: Thursday, April 12, 2018 2:00 PM
To: Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>; Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>
Cc: Rotstein, David <David.Rotstein@fda.hhs.gov>
Subject: another DCM: FW: Kirkland Signature Nature's Domain Turkey Meal and Sweet Potato Dog Food: B6 EON-351034

David Rotstein, DVM, MPVM, Dipl. ACVP
CVM Vet-LIRN Liaison
CVM OSC/DC/CERT
7519 Standish Place
240-506-6763 (BB)





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From: PFR Event [<mailto:pfreventcreation@fda.hhs.gov>]
Sent: Thursday, April 12, 2018 1:56 PM
To: Cleary, Michael * <Michael.Cleary@fda.hhs.gov>; HQ Pet Food Report Notification <HQPetFoodReportNotification@fda.hhs.gov> [B6]
Subject: Kirkland Signature Nature's Domain Turkey Meal and Sweet Potato Dog Food: [B6]
 EON-351034

A PFR Report has been received and PFR Event [EON-351034] has been created in the EON System.

A "PDF" report by name "2045680-report.pdf" is attached to this email notification for your reference.

Below is the summary of the report:

EON Key: EON-351034

ICSR #: 2045680

EON Title: PFR Event created for Kirkland Signature Nature's Domain Turkey Meal and Sweet Potato Dog Food; 2045680

AE Date	[B6]	Number Fed/Exposed	1
Best By Date		Number Reacted	1
Animal Species	Dog	Outcome to Date	Stable
Breed	Retriever - Golden		
Age	11 Years		
District Involved	PFR [B6] DO		

Product information

Individual Case Safety Report Number: 2045680

Product Group: Pet Food

Product Name: Kirkland Signature Nature's Domain Turkey Meal and Sweet Potato Dog Food

Description: [B6] was diagnosed with dilated cardiomyopathy and left sided congestive heart failure by the cardiology service at [B6]. Her disease has been stable. Due to reports of DCM related to taurine deficiency on grain free diets, a whole blood taurine level was submitted on 3/2/2018 by the cardiology service. Whole blood taurine was [B6] (ref range 200-350, critical <150). owner was advised to stop current diet and start taurine supplementation.

Submission Type: Initial

Report Type: Adverse Event (a symptom, reaction or disease associated with the product)

Outcome of reaction/event at the time of last observation: Stable

Number of Animals Treated With Product: 1

Number of Animals Reacted With Product: 1

Product Name	Lot Number or ID	Best By Date
Kirkland Signature Nature's Domain Turkey Meal and Sweet Potato Dog Food		

Sender information

B6

USA

Owner information

B6

To view this PFR Event, please click the link below:

<https://eon.fda.gov/eon//browse/EON-351034>

To view the PFR Event Report, please click the link below:

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jsps?decorator=none&e=0&issueType=12&issueId=367422>

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From: Rotstein, David </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0A3B17EBFCF14A6CB8E94F322906BADD-DROTSTEI>
To: Jones, Jennifer L; Ceric, Olgica; Nemser, Sarah; Palmer, Lee Anne; Queen, Jackie L; Carey, Lauren
Sent: 7/9/2018 12:46:01 PM
Subject: FW: Merrick grain free salmon and sweet potato dry: Lisa Freeman - EON-358518
Attachments: 2051554-report.pdf

We should be getting more of these

David Rotstein, DVM, MPVM, Dipl. ACVP
CVM Vet-LIRN Liaison
CVM OSC/DC/CERT
7519 Standish Place
240-506-6763 (BB)



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From: PFR Event [mailto:pfpreventcreation@fda.hhs.gov]
Sent: Monday, July 09, 2018 8:44 AM
To: Cleary, Michael * <Michael.Cleary@fda.hhs.gov>; HQ Pet Food Report Notification <HQPetFoodReportNotification@fda.hhs.gov>; usha.gulati@doveltch.com
Subject: Merrick grain free salmon and sweet potato dry: Lisa Freeman - EON-358518

A PFR Report has been received and PFR Event [EON-358518] has been created in the EON System.

A "PDF" report by name "2051554-report.pdf" is attached to this email notification for your reference.

Below is the summary of the report:

EON Key: EON-358518

ICSR #: 2051554

EON Title: PFR Event created for Merrick grain free salmon and sweet potato dry; 2051554

AE Date	06/21/2018	Number Fed/Exposed	
Best By Date		Number Reacted	1
Animal Species	Dog	Outcome to Date	Stable

Breed	Mixed (Dog)		
Age	B6 Years		
District Involved	PFR-New England DO		

Product information

Individual Case Safety Report Number: 2051554

Product Group: Pet Food

Product Name: Merrick grain free salmon and sweet potato dry

Description: Routine echo during treatment for **B6** Normal left ventricular wall thickness with reduced contractile function

Submission Type: Initial

Report Type: Adverse Event (a symptom, reaction or disease associated with the product)

Outcome of reaction/event at the time of last observation: Stable

Number of Animals Reacted With Product: 1

Product Name	Lot Number or ID	Best By Date
Merrick grain free salmon and sweet potato dry		

Sender information

Lisa Freeman
 200 Westboro Rd
 North Grafton, MA 01536
 USA

Owner information

B6
 USA

To view this PFR Event, please click the link below:

<https://eon.fda.gov/eon//browse/EON-358518>

To view the PFR Event Report, please click the link below:

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jspx?decorator=none&e=0&issueType=12&issueId=375142>

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From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
To: Jones, Jennifer L
CC: Reimschuessel, Renate
Sent: [REDACTED] 11:01:57 PM
Subject: RE: 800.267-FDA Case Investigation for [REDACTED] (EON-358523)

PS – I have food samples for [REDACTED]

Lisa M. Freeman, DVM, PhD, DACVN
Professor
Cummings School of Veterinary Medicine
Friedman School of Nutrition Science and Policy
Tufts Clinical and Translational Science Institute
Tufts University
www.petfoodology.org

From: Freeman, Lisa
Sent: [REDACTED] 3:32 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Cc: Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Subject: RE: 800.267-FDA Case Investigation for [REDACTED] (EON-358523)

Hi Jen and Renate
I'll get permission from all 3 owners and send records. I might wait another week before calling [REDACTED] and [REDACTED] owners based on updates below.
Lisa

Updates:

For [REDACTED] WB taurine was [REDACTED]. On [REDACTED] We talked to owner: [REDACTED] was having trouble breathing, they were planning to put [REDACTED] but he died at home [REDACTED]

For [REDACTED] taurine came back normal (plasma = [REDACTED] WB = [REDACTED] Owner left a message that [REDACTED] died on [REDACTED] so no repeat echo. We're calling the vet to see if we can find out any additional info.

For [REDACTED] owner told us on [REDACTED]: He collapsed twice on [REDACTED] once at home and again at [REDACTED] where we had him put to sleep
No autopsy done. Not sure if I sent before but his taurine was plasma [REDACTED] and WB [REDACTED]

Lisa M. Freeman, DVM, PhD, DACVN
Professor
Cummings School of Veterinary Medicine
Friedman School of Nutrition Science and Policy
Tufts Clinical and Translational Science Institute
Tufts University
www.petfoodology.org

From: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Sent: [REDACTED] 8:47 AM
To: Freeman, Lisa <lisa.freeman@tufts.edu>
Cc: Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Subject: RE: 800.267-FDA Case Investigation for [REDACTED] (EON-358523)

Good morning Lisa,

Yes, we got the reports you previously submitted and recorded the information for our database. Will you please forward any medical records for:

- [B6], are you able to send any updates on the Taurine testing or echocardiogram (if done?)
- [B6] - Also was an autopsy done?

Thank you in advance and for your time to report all the cases!

Jen

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Freeman, Lisa [mailto:Lisa.Freeman@tufts.edu]
Sent: [B6] 8:06 AM
To: Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Cc: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: RE: 800.267-FDA Case Investigation for [B6] (EON-358523)

Dear Renata and Jennifer

That seems reasonable. I was never contacted about the other cases that I submitted. There was some confusion about the way I submitted them so I want to be sure you actually got them [B6]

[B6]

I'm sure you're all getting slammed with reports (and there will probably be even more coming now) but just wanted to check to be sure they got recorded.

Thanks

Lisa

From: Reimschuessel, Renate [mailto:Renate.Reimschuessel@fda.hhs.gov]
Sent: [B6] 8:55 AM
To: Freeman, Lisa <Lisa.Freeman@tufts.edu>
Cc: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: RE: 800.267-FDA Case Investigation for [B6] (EON-358523)

Dear Lisa

Thanks for gathering the information.

I think, since we are getting so many reports since our CVM update, we should pass on the [B6] case as it is not clear-cut.

I think Jen is more familiar with the [B6] case, so I'll let her respond regarding that one.

Thank you again for all your work on this investigation.

rr

Renate Reimschuessel V.M.D. Ph.D. Director Vet-LIRN

Phone 1- 240-402-5404

Fax 301-210-4685

<http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>

From: Freeman, Lisa [mailto:Lisa.Freeman@tufts.edu]
Sent: Thursday, July 19, 2018 5:59 PM
To: Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Subject: RE: 800.267-FDA Case Investigation for [B6] (EON-358523)

Dear Renate

In looking back through this case, I'm not sure this is a completely clear-cut one. The dog has degenerative mitral valve disease and CHF but also has reduced cardiac contractility so might be a combination. Do you still want me to collect the info below?

Also, I have an update on [B6] who died at home [B6] I do have food from the owner if you want that.

Thanks
Lisa

Lisa M. Freeman, DVM, PhD, DACVN
Professor
Cummings School of Veterinary Medicine
Friedman School of Nutrition Science and Policy
Tufts Clinical and Translational Science Institute
Tufts University
www.petfoodology.org

From: Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Sent: Tuesday, July 17, 2018 11:48 AM
To: Freeman, Lisa <lisa.freeman@tufts.edu>
Subject: 800.267-FDA Case Investigation for [B6] (EON-358523)

Dear Dr. Freeman,

Thank you for submitting your consumer complaint to FDA. I'm sorry to hear about [B6] illness. As part of our investigation, we'd like to request:

- **Full Medical Records**
 - Please email (preferred) or fax (301-210-4685) a copy of [B6] **entire** medical history (not just this event), including any referral diagnostics.
- **Phone interview** about [B6] diet and environmental exposures
 - Please confirm permission to contact the owner.
 - The interview generally lasts 30 minutes.

I attached a copy of our Vet-LIRN network procedures. The procedures describe how Vet-LIRN operates and how veterinarians help with our case investigations.

Please respond to this email so that we can initiate our investigation.

Thank you kindly, especially for submitting multiple cases,
Dr. Reimschuessel

Renate Reimschuessel V.M.D. Ph.D.
Director: Vet-LIRN
(*Veterinary Laboratory Investigation and Response Network*)
Center For Veterinary Medicine, FDA,
8401 Muirkirk Road, Laurel, MD 20708
Phone 1- 240-402-5404 Fax 301-210-4685
EMAIL : renate.reimschuessel@fda.hhs.gov

Vet-LIRN

<http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>

Phish-Pharm

<http://www.fda.gov/AnimalVeterinary/ScienceResearch/ToolsResources/Phish-Pharm/default.htm>

Aquaculture

<http://www.fda.gov/AnimalVeterinary/ScienceResearch/ResearchAreas/ucm130892.htm>

From: Jones, Jennifer L </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0f6ca12eaa9348959a4cbb1e829af244-Jennifer.Jo>
To: 'Reimschuessel, Renate (Renate.Reimschuessel@fda.hhs.gov)'; Nemser, Sarah
Sent: 10/30/2018 3:37:40 PM
Subject: DCM-help requesting MRx

Hi team,

If the point of contact is Lisa Freeman, please don't followup on those. I'm in touch with her about several other cases, and she sends me updates.

We have an updated initial request email template. You can include the food statement if needed. I'm doing a triage right now.

Thank you,

Jen

Jennifer L. A. Jones, DVM

Veterinary Medical Officer

U.S. Food & Drug Administration

Center for Veterinary Medicine

Office of Research

Veterinary Laboratory Investigation and Response Network (Vet-LIRN)

8401 Muirkirk Road, G704

Laurel, Maryland 20708

new tel: 240-402-5421

fax: 301-210-4685

e-mail: jennifer.jones@fda.hhs.gov

Web: <http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>



From: Jones, Jennifer L </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0f6ca12eaa9348959a4cbb1e829af244-Jennifer.Jo>
To: 'Freeman, Lisa'
Sent: 11/7/2018 3:11:20 PM
Subject: RE: reported cases

Hi Lisa,

We have all of the cases you listed below except: B6 It's fine to send me the additional records for the cases 😊

Thank you for your tireless efforts at getting us the information.

It's greatly appreciated!!

Jen

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
Sent: Monday, October 01, 2018 3:51 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: reported cases

Hi Jen

I was looking through which cases I've submitted (have a bunch more to add) and saw that 3 were in a separate account and there a few that are not showing up as having been reported.

1. Could you check to see that these 3 are listed as having been reported?

My Reports

Draft Reports

Click column header to sort the column

Date Saved (EST) MM/DD/YYYY	Report ID	Title	Report Type	Description
You have no draft reports click on Start New Report to begin				
Start New Report	Edit	Delete		

Please make sure an appropriate group is selected from the left navigation menu before creating a report.

Submitted Reports Available for Follow-Up

 **Search for Submitted Reports**

Click column header to sort the column

Date Submitted (EST) MM/DD/YYYY	Report ID	ICSR #	Title	Report Type	Description
<input type="radio"/> 06/04/2018 04:47:10 PM	234836 (1)	2048966 (1)	B6		Voluntary Reportable Food Report (Section 1005 of Public Law 110-85) (V2)
<input type="radio"/> 05/19/2018 05:44:12 PM	234154 (1)	2048088 (1)	B6		Voluntary Reportable Food Report (Section 1005 of Public Law 110-85) (V2)
<input type="radio"/> 04/20/2018 03:40:30 PM	231833 (1)	2046176 (1)	B6 DCM		Voluntary Reportable Food Report (Section 1005 of Public Law 110-85) (V2)
Start Follow-up Report	View	View PDF			« < Page 1 of 1 > »

PRIVACY POLICY | FREEDOM OF INFORMATION ACT | ACCESSIBILITY | DISCLAIMER

2. Also, I have a 3 others that are not listed in my account but I'm pretty sure I reported. If not, I'll get them submitted:

⋮ **B6**

3. I keep sending you the extra medical records that won't fit in the reporting portal. Is there someone else I should send these to so I don't keep clogging your inbox?

Many thanks
Lisa

Lisa M. Freeman, DVM, PhD, DACVN
Board Certified Veterinary Nutritionist™
Professor
Cummings School of Veterinary Medicine
Friedman School of Nutrition Science and Policy
Tufts Clinical and Translational Science Institute
Tufts University
www.petfoodology.org

From: Rotstein, David </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0A3B17EBFCF14A6CB8E94F322906BADD-DROTSTEI>
To: Carey, Lauren; Ceric, Olgica; Glover, Mark; Jones, Jennifer L; Nemser, Sarah; Palmer, Lee Anne; Peloquin, Sarah; Queen, Jackie L; Rotstein, David
Sent: 2/28/2019 12:38:49 PM
Subject: DCM cases 2/28/2019- 0730
Attachments: 2063276-report.pdf; CANIDAE- ALL LIFE STAGES-CHICKEN MEAL & RICE FORMULA--DRY DOG FOOD: Lisa Freeman - EON-381040; Earthborn Holistic Meadow Feast: [B6] - EON-364753; Earthborn Holistic Meadow Feast: [B6] - EON-381035; Earthborn Holistic Meadow Feast: [B6] - EON-381035; Grain-Free Salmon: [B6] - EON-381022; Taste of the Wild -Pacific Stream Canine Formula with Smoked Salmon: [B6] - EON-350487; Taste of the Wild Whole Prey: [B6] - EON-381027; Taste of the Wild: [B6] - EON-381026; Zignature Kangaroo and Lentil: [B6] - EON-363773

Note there are some PFR follow ups- originals are included.

Original-350487/new 381026

381040- mentions 2 other dogs in household being screened

Original -364753/new 381035

Original 363773/new 381033

Not listed as a related PFR-- original 350487 (report 2063276) / new 381026

David Rotstein, DVM, MPVM, Dipl. ACVP
CVM Vet-LIRN Liaison
CVM OSC/DC/CERT
7519 Standish Place
240-506-6763 (BB)



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From: PFR Event <pfpreventcreation@fda.hhs.gov>
To: Cleary, Michael *; HQ Pet Food Report Notification; B6
Sent: 2/27/2019 7:00:50 PM
Subject: CANIDAE- ALL LIFE STAGES-CHICKEN MEAL & RICE FORMULA--DRY
 DOG FOOD: Lisa Freeman - EON-381040
Attachments: 2063286-report.pdf; 2063286-attachments.zip

A PFR Report has been received and PFR Event [EON-381040] has been created in the EON System.

A "PDF" report by name "2063286-report.pdf" is attached to this email notification for your reference. Please note that all documents received in the report are compressed into a zip file by name "2063286-attachments.zip" and is attached to this email notification.

Below is the summary of the report:

EON Key: EON-381040

ICSR #: 2063286

EON Title: PFR Event created for CANIDAE® ALL LIFE STAGES CHICKEN MEAL & RICE FORMULA DRY DOG FOOD; 2063286

AE Date	02/25/2019	Number Fed/Exposed	3
Best By Date		Number Reacted	1
Animal Species	Dog	Outcome to Date	Stable
Breed	Doberman Pinscher		
Age	B6 Years		
District Involved	PFR-New England DO		

Product information

Individual Case Safety Report Number: 2063286

Product Group: Pet Food

Product Name: CANIDAE® ALL LIFE STAGES CHICKEN MEAL & RICE FORMULA DRY DOG FOOD

Description: DCM and CHF diagnosed 2/25/19. Eating BEG diet. 2 other dogs in household will be screened. Will change diet on B6 and reassess in 3 months. Just being discharged today. Taurine and troponin pending

Submission Type: Initial

Report Type: Adverse Event (a symptom, reaction or disease associated with the product)

Outcome of reaction/event at the time of last observation: Stable

Number of Animals Treated With Product: 3

Number of Animals Reacted With Product: 1

Product Name	Lot Number or ID	Best By Date
CANIDAE® ALL LIFE STAGES CHICKEN MEAL & RICE FORMULA DRY DOG FOOD		

Sender information

Lisa Freeman
200 Westboro Rd
North Grafton, MA 01536
USA

Owner information

B6
USA

To view this PFR Event, please click the link below:

<https://eon.fda.gov/eon//browse/EON-381040>

To view the PFR Event Report, please click the link below:

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jspa?decorator=none&e=0&issueType=12&issueId=398049>

This email and attached document are being provided to you in your capacity as a Commissioned Official with the U.S. Department of Health and Human Services as authorized by law. You are being provided with this information pursuant to your signed Acceptance of Commission.

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you received this email in error, please send an email to FDAREportableFoods@fda.hhs.gov immediately.

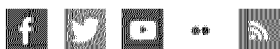
From: Rotstein, David </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0A3B17EBFCF14A6CB8E94F322906BADD-DROTSTEI>
To: Carey, Lauren; Ceric, Olgica; Glover, Mark; Jones, Jennifer L; Nemser, Sarah; Palmer, Lee Anne; Peloquin, Sarah; Queen, Jackie L; Rotstein, David
Sent: 3/29/2019 11:03:55 AM
Subject: DCM cases 3/29/2019 0630
Attachments: Crave Adult Dry Cat Food With Protein From Salmon & Ocean Fish: [B6]
EON-383623; Crave Adult Dry Cat Food With Protein From Salmon & Ocean Fish: [B6]
[B6] - EON-383624; Orijen Original: [B6] - EON-383507; Rachel Ray peak open range recipe (beef: Lisa Freeman - EON-370720; Rachel Ray peak open range recipe (beef: Lisa Freeman - EON-383627

Working under the new process. In general, if echo is described in the report or if it is from our frequent flyers (Freeman, [B6] etc.), these will be sent. There may be others that come up at our weekly meeting.

Related 383627-370720

Related 383623-383624

David Rotstein, DVM, MPVM, Dipl. ACVP
CVM Vet-LIRN Liaison
CVM OSC/DC/CERT
7519 Standish Place
240-506-6763 (BB)



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B6

CXR Report

B6

B6

Final Report for Exam ID: B6

Patient ID: B6

Patient Name: B6

Sex: M ALTERED

Birthdate:

Weight: 95

Hospital Name: B6

Doctor Name: B6

Date of Exam: B6

Report Date:

Report ID: 2386236

Reader:

History

Consult Type: FILMINTERP, SIG: DOB: B6 Age: B6 Y, Sex: M ALTERED, Wt: 95lbs, Breed: Doberman, Species: CANINE, Images: 3, Case Details: Referred for potential toe mass. Chest X-rays revealed significant pleural effusion with suspected cardiomegaly. Echo confirmed cardiac disease with failure. Primary concern is cardiac disease and not neoplasia. Current meds = B6 B6

Findings

Three lateral radiographic projections of the thorax dated: B6

B6

Conclusion

Cardiomegaly consistent with patient history of cardiac disease. Pleural effusion and hepatomegaly with suspected mild peritoneal effusion is most concerning for right-sided cardiac dysfunction given patient history and constellation of radiographic findings. Increased interstitial opacity in the caudodorsal lung has differentials to include artifact secondary to partial atelectasis and superimposition of pleural fluid, however mild pulmonary edema cannot be ruled out. If clinically indicated a dorsoventral projection of the thorax could be considered for further evaluation of the caudal lung fields and vasculature. Degenerative changes of the spine and sternum.

B6

- CXR Report -

B6

Recommendations

Continued radiographic monitoring of the thorax to assess response to treatment for heart failure are recommended to evaluate response to treatment and better evaluate for comorbidities.

Read By:

B6

DVM, DACVR

B6

11:22:52 AM UTC

To contact me : If you have any questions or concerns regarding this report or would like to discuss this case please contact me via email at B6

Patient ID

B6

Patient Name

B6

Page2

From: Rotstein, David </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0A3B17EBFCF14A6CB8E94F322906BADD-DROTSTEI>
To: Carey, Lauren; Ceric, Olgica; Glover, Mark; Jones, Jennifer L; Nemser, Sarah; Palmer, Lee Anne; Peloquin, Sarah; Queen, Jackie L; Rotstein, David
Sent: 10/26/2018 12:30:01 PM
Subject: DCM cases 10/26/2018 0827
Attachments: Blue Wilderness: [B6] - EON-369415; Nov 2015-Nov 2017: Nature's Variety Instinct Limited Ingredient Lamb-Nov 2017- Aug 2018: Blue Buffalo Basics Grain Free-Aug 2018-Oct 2018: American Journey Lamb and Sweet Potato: [B6] - EON-369375; taste of the wild grain free pacific stream-taste of the wild prey trout limited ingredients: [B6] - EON-369346; Taste of the Wild High Prairie: Lisa Freeman - EON-369325; WELLNESS CORE GRAIN FREE: [B6] - EON-369373

David Rotstein, DVM, MPVM, Dipl. ACVP
CVM Vet-LIRN Liaison
CVM OSC/DC/CERT
7519 Standish Place
240-506-6763 (BB)



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From: Peloquin, Sarah </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8607F880DF2B494AA639E6D9A3874132-SARAH.PELOQ>
To: [REDACTED] B6
CC: Guag, Jake
Sent: 9/6/2018 4:46:04 PM
Subject: RE: 800.267 FDA Case Investigation for [REDACTED] B6 (EON-358522)

Wonderful. Jake Guag (cc'd on this email) will be sending you shipping/tracking information within the next week.

Thanks so much, and have a great rest of your week!

From: [REDACTED] B6
Sent: Thursday, September 6, 2018 12:30 PM
To: Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Subject: Re: 800.267 FDA Case Investigation for [REDACTED] B6 (EON-358522)

Hello,
Sorry for the late response. There was no autopsy performed on [REDACTED] B6. Also I double checked and I think we have enough food for the 2 pint sized bags like you had mentioned. I would definitely like to do what I can to help with the research.

Thank you,
[REDACTED] B6

On Wed, Sep 5, 2018 at 10:54 AM Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov> wrote:
Hello again,

I want to thank you again for taking the time to speak with me today! As I mentioned, we would like to collect a sample of the Halo food. **Also, I forgot to ask you—was an autopsy performed when [REDACTED] B6 passed away?** I didn't see it in the record, but wanted to double check.

As an FYI: We are developing our testing plan for food collected from cases. However, individual samples from consumers may not undergo all these tests, because there is not enough to run all the tests. Therefore the testing of an individual case may provide data for only one or two components of the testing plan. The results of the testing need to be interpreted as a group, not by individual sample test results. The data from all the different cases is then evaluated for evidence of root cause for the illnesses. **During an active investigation, individual product test results are not released to the public because such reporting would provide a very incomplete representation of the overall data.**

If you're still interested in providing the food, we can send a pre-paid box to your home. Please let me know.

Here are the links I mentioned:
<https://www.fda.gov/AnimalVeterinary/ResourcesforYou/AnimalHealthLiteracy/ucm616279.htm> -- FAQs on DCM and Grain-Free Foods
<https://www.fda.gov/AnimalVeterinary/NewsEvents/CVMUpdates/ucm591327.htm> -- FDA Center for Vet Medicine Updates

Thank you so much!

Dr. Peloquin

From: [REDACTED] B6
Sent: Thursday, August 30, 2018 12:40 PM

To: Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Subject: Re: 800.267 FDA Case Investigation for [B6] (EON-358522)

Hello,
That sounds good, the best number would be [B6]
Thanks,
[B6]

On Thu, Aug 30, 2018 at 12:18 PM Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov> wrote:
Hello,

No problem for the delay. I will call you on Wednesday, September 5th at 10:00am. What is the phone number I should call?

Thanks,
Dr. Peloquin

From: [B6]
Sent: Thursday, August 30, 2018 11:00 AM

To: Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Subject: Re: 800.267 FDA Case Investigation for [B6] (EON-358522)

Hello Dr. Peloquin,
I apologize for emailing back so late but since I am a [B6] I just had to organize my schedule to know what times I am available. On the fourth I would be available all day, On the fifth I would be free anytime before 11a.m, and on the 6th I would be free before 9 a.m. Let me know when I should be expecting your call.
Thank you,
[B6]

On Aug 29, 2018, at 8:58 AM, Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov> wrote:

Good morning [B6]

I did indeed receive the email with the additional records – thank you.
I have reviewed all of [B6] records and would like to request a phone interview with you. Please send me 3 times when you would be available to speak (for ~30 minutes) during the week of 9/4-9/7. My normal office hours are Monday-Friday, 7:00 am to 3:00 pm EST, but please note that I will be out of the office on Labor Day.
Thank you,
Dr. Peloquin

From: [B6]
Sent: Tuesday, August 28, 2018 4:18 PM
To: Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Subject: Re: 800.267 FDA Case Investigation for [B6] (EON-358522)

Dr, Peloquin, you should have received an email earlier today from the [B6] and it has records dating back to 2015. Let me know if you received them and if not I have the file now and will send them over myself. If you have received them those are all the medical records I have.
Thanks,
[B6]

On Tue, Aug 28, 2018 at 7:29 AM Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov> wrote:
[B6] thank you for your response. I believe I have one record from [B6] dating 6/28/18. If this is the only one from that hospital, I will go ahead and start reviewing the medical records.

Thanks,
Dr. Peloquin

From: [REDACTED] **B6**
Sent: Monday, August 27, 2018 7:35 PM
To: Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Subject: Re: 800.267 FDA Case Investigation for [REDACTED] **B6** (EON-358522)

Hello Dr. Peloquin,

Thank you for your condolences. It was tough to go through, but if his case can help learn more about DCM it would make it just a bit easier. [REDACTED] **B6** saw a family vet so there aren't any records for the small stuff like vaccines, check ups, etc. When something more serious came up [REDACTED] **B6** saw the [REDACTED] **B6**. [REDACTED] **B6** I called them and you should be expecting an email sometime tomorrow. I also asked them to copy me in the email so I can see it as well.

Thank you,

[REDACTED] **B6**

On Aug 27, 2018, at 9:39 AM, Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov> wrote:

Good morning [REDACTED] **B6**

I have received medical records from Dr. Lisa Freeman for [REDACTED] **B6** case. I'm so, so sorry for your loss.

Did [REDACTED] **B6** see a primary veterinarian prior to his diagnosis? If so, please ask them to email (preferred) or fax (301-210-4685) a copy of [REDACTED] **B6** *entire medical history*.

After I receive full records, I will review them in their entirety and may request a phone interview with you.

Please let me know if you have any questions.

Thanks,

Dr. Peloquin

Sarah K. Peloquin, DVM
Veterinary Medical Officer

U.S. Food & Drug Administration
Center for Veterinary Medicine
Office of Research
tel: 240-402-1218
fax: 301-210-4685

e-mail: sarah.peloquin@fda.hhs.gov

<image002.png> <image004.png>

From: Jones, Jennifer L </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0F6CA12EAA9348959A4CBB1E829AF244-JENNIFER.JO>
To: **B6** Andrea Fascetti
CC: Guag, Jake
Sent: 4/2/2019 11:19:19 AM
Subject: RE: Heads up: Vet-LIRN (FDA) shipped 800.267 samples

Received. Thank you: **B6**

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: **B6**
Sent: Monday, April 01, 2019 8:06 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Andrea Fascetti <ajfascetti@ucdavis.edu>
Cc: Guag, Jake <Jake.Guag@fda.hhs.gov>
Subject: Re: Heads up: Vet-LIRN (FDA) shipped 800.267 samples

Hi Dr. Jones,

Attached please find the corrected data file.

Kind Regards,

B6

From: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Sent: Monday, April 1, 2019 4:30 AM
To: Andrea Fascetti; **B6**
Cc: Guag, Jake
Subject: RE: Heads up: Vet-LIRN (FDA) shipped 800.267 samples

Good morning Andrea and **B6**
I was reviewing the results and needed some clarification of the results for 2 cases. The results you sent show plasma amino acid values for cv-09 but not cv-14. However, I did not send any plasma for cv-09. I did send plasma for cv-14 (attached inventory sheet). Can you please clarify which set of plasma values belong to cv-14?
Thank you in advance and have a wonderful week,
Jen

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Andrea Fascetti <ajfascetti@ucdavis.edu>
Sent: Saturday, March 23, 2019 1:30 PM
To: **B6**
Cc: Guag, Jake <Jake.Guag@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: Re: Heads up: Vet-LIRN (FDA) shipped 800.267 samples

Hello Jen and Jake- Please see attached file with your results. Thanks for the heads-up on the species. We have to know in case someone in the lab comes in contact with the blood (especially through a cut). Our occupational health and safety folks then have us file a report and follow up on those cases to ensure vaccination status etc.

We will bill according to your comments below.

Have a nice weekend.

Andrea

On Mar 21, 2019, at 10:51 AM, [REDACTED] > wrote:

Hi Jake,

May you help to confirm the samples are for dogs or cats? I could not find the information

Thanks,

[REDACTED]

From: Guag, Jake <Jake.Guag@fda.hhs.gov>
Sent: Tuesday, March 12, 2019 8:53 AM
To: [REDACTED]
Cc: Jones, Jennifer L
Subject: Heads up: Vet-LIRN (FDA) shipped 800.267 samples

Hi [REDACTED]

Hope you are well. We shipped 800.267 samples on dry ice to you.

Box#1 has urine samples its tracking number is 1ZA4420T0194520315 with UPS.

Box#2 has whole blood and serum samples and its tracking number is 1ZA4420T0192121929 with UPS. Both boxes are expected to arrive your location tomorrow (Mar. 13th, 2019)

Please charge the urine sample analysis under AA contract.

Please provide invoice for the blood and serum analysis.

Thank you

Jake

Jake Guag, MPH, CPH
Biologist (FDA/CVM/OR/Vet-LIRN)
8401 Muirkirk Road
Laurel, Maryland 20708
Email: jake.guag@fda.hhs.gov
Tel: 240-402-0917



Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

Network Procedures for Veterinarians

1. Introduction

The purpose of this Network Procedure is to facilitate basic interactions between the Vet-LIRN Program Office (VPO) and veterinarians participating in Vet-LIRN case investigations. General procedures such as information flow, sample handling procedures, submission of reports and billing for services are discussed. The focus of most Vet-LIRN case investigations is on diagnostic samples, although occasionally animal food samples will also be submitted. Animal food testing conducted after receiving a consumer complaint is typically handled by FDA's Office of Regulatory Affairs (ORA) Laboratories or accredited laboratories.

- 1.1 In the case of Vet-LIRN investigations, the government is the client.
 - 1.1.1 The government is requesting assistance in its investigation, and is requesting tests or services to be performed by your clinic during this investigation.
 - 1.1.2 The government will pay for these services.
 - 1.1.3 The owner is helping with the government's investigation of a regulated product.
 - 1.1.4 The goal of the investigation is to determine if the product is at fault and why.
 - 1.1.5 The government's investigation may not provide a definitive diagnosis for the patient's illness.

2. Case Background – Consumer complaint

- 2.1 Vet-LIRN obtains information about the cases we investigate from 3 main sources,
 - 2.1.1 Consumer complaints (cc) - obtained by FDA Consumer Complaint Coordinators by phone
 - 2.1.2 Electronic consumer complaint submissions through FDA's Food Safety Reporting Portal, and
 - 2.1.3 Vet-LIRN partner laboratories.

*NOTE: Generally, the information received in a consumer complaint is **not** kept confidential. In most cases, only protected personal information (such as names and addresses) is withheld in an effort to prevent the complaint from being traced back to the individual who submitted it.*



Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

3. Communications

- 3.1 VPO will discuss the case with the referring veterinarian and or the owner.
- 3.2 VPO evaluates the case history and determines a need for follow up testing to determine if the food (or drug) is the cause of the illness or death.
- 3.3 VPO contacts the appropriate member laboratory(-ies) (chosen based on location and capabilities) and provides initial information
 - 3.3.1 In some cases only partial history is available
 - 3.3.2 Follow up information will be sent as it becomes available.
- 3.4 VPO proposes the tests to be conducted and prepares billing documents.
- 3.5 VPO makes arrangements with the veterinarian to obtain and ship samples.
 - 3.5.1 VPO receives test results and forwards the results to the veterinarian who will then communicate the results to the owner.

4. Case history

- 4.1 A complete medical history is essential,
 - 4.1.1 age, sex, breed, animal's ID/name,
 - 4.1.2 other animals affected,
 - 4.1.3 duration of problem, lesion distribution (diagrams or photos are welcome),
 - 4.1.4 treatment of problem (especially dose and duration of therapy) and response to treatment.
 - 4.1.5 concomitant drugs or dietary supplements administered (not used for treatment of the reaction, but administered for other reasons at the same time or within a short time of the problem occurrence).
- 4.2 Vet-LIRN Case Numbers:
 - 4.2.1 Include Vet-LIRN case number in all correspondence.
 - 4.2.2 E-mail: include the Vet-LIRN case number as the first part of the subject line. This will help archiving data for each case.
- 4.3 Electronic submission of medical records and laboratory results is preferred.
- 4.4 Histories can also be submitted by FAX to Vet-LIRN (301-210-4685).
- 4.5 Information about follow-up visits related to the investigation and additional laboratory reports should be provided as soon as possible. Phone calls are very useful for



Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

discussing cases in depth, but should be followed up with the medical records and lab reports.

- 4.5.1 Due to time difference around the country, email communication is often the best way to assure information is transferred in a timely manner.

5. Services Requested by VPO

5.1 Services typically tests will fall into 3 categories:

- 5.1.1 Office Examination
- 5.1.2 Clinical laboratory samples
- 5.1.3 Pathology

5.2 Office Examination:

- 5.2.1 To evaluate the current status of the patient.
- 5.2.2 To obtain samples from the patient for further analysis (blood, urine, feces).

5.3 Clinical Laboratory Samples:

- 5.3.1 VPO may ask for repeat analysis of new samples to be run either by the veterinary hospital, or by its usual testing laboratory.
- 5.3.2 Typical tests include clinical hematology, microbial cultures, urinalysis, and fecal examination.
- 5.3.3 Additional testing may be requested and the samples sent to a Vet-LIRN network laboratory.

5.4 Pathology:

- 5.4.1 Either submit the entire carcass or conduct a routine necropsy examination. Record your findings in detail and submit. Histopathology and microbiological cultures as appropriate.
 - 5.4.1.1 Describe all lesions – location, color, size, texture.
 - 5.4.1.2 Culture lesions or intestinal contents as deemed appropriate based on the history.
 - 5.4.1.3 Save tissues for histopathology- be sure to use 10:1 formalin to tissue mass.
- 5.4.2 Histopathology tissues (preserve in 10% neutral buffered formalin 10:1 ratio fixative to tissue):



Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

5.4.2.1 thyroid, thymus, lung, heart, liver, spleen, adrenal, kidney, pancreas, stomach, duodenum, jejunum, ileum, colon, urinary bladder, skeletal muscle, brain.

5.4.2.2 Request a duplicate set of H&E for submission to VPO for archiving.

5.5 Toxicology:

5.5.1 Freeze and hold tissues if there is any indication that a toxic substance may be involved:

5.5.1.1 brain (for organophosphates and carbamates),

5.5.1.2 eyes, liver, kidney, brain, stomach content, fat,

5.5.1.3 if available, serum, EDTA blood, urine.

5.5.2 Following a review of histopathology, VPO may select tissues to be analyzed and request that tissues be sent to a Vet-LIRN laboratory.

5.5.3 When the case is closed by VPO, samples can be disposed of. When in doubt, please ask.

5.5.3.1 The animal's remains can be disposed of following the laboratories' customary procedures.

6. Sample submissions

6.1 Normally, VPO prefers that the veterinarian, not the pet owner submit samples.

6.2 Arrangements for transport should be made with the VPO (see additional shipping instructions).

6.3 A Vet-LIRN Sample Submission Form, given by VPO to the veterinarian, should be provided to the veterinarian and should accompany all samples being sent to our Vet-LIRN laboratory, listing the recommended tests.

6.4 A Shipping Inventory Sheet, given by VPO to the veterinarian, should also be provided by VPO and should be submitted with all samples. This form will be filled out and faxed to the VPO (301-210-4685) by the receiving Vet-LIRN laboratory.

6.5 Vet-LIRN case numbers should be provided by the VPO and should be included on all samples and reports.

6.5.1 Rarely, an owner will deliver a specimen or an animal for necropsy directly to the participating laboratory. Vet-LIRN should notify the lab to expect the owner if this happens and will provide appropriate forms.



Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

7. Sample types that Vet-LIRN may request from the Veterinarian

- 7.1 Entire bodies (fresh or frozen)
- 7.2 Organs from necropsy (fresh, frozen or formalin fixed)
- 7.3 Clinical samples (serum, blood, urine, feces, biopsy samples, cultures)
- 7.4 Food samples (open bag products from home)

8. Reporting

- 8.1 All reports from Vet-LIRN testing labs are submitted to VPO.
- 8.2 VPO will forward reports to the veterinarian, who should discuss the results with the owner.
- 8.3 If appropriate, VPO will forward reports to the owner.

9. Communications with Owners

9.1 General:

- 9.1.1 VPO usually will have contacted the owner to request permission and assistance in the investigation.
- 9.1.2 Vet-LIRN's investigation is focused on determining if a regulated product is the cause of the animal's illness. The testing requested by Vet-LIRN may not provide a definitive diagnosis
- 9.1.3 VPO will provide testing results to the veterinarian for communication to the owner. This ensures that:
 - 9.1.3.1 Owners can be counseled on the interpretation of the test results,
 - 9.1.3.2 Appropriate medical follow-up care based on test results can be recommended by the owner's veterinarian.



Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

10. Billing

- 10.1 Vet-LIRN VPO can only pay for services which were requested and approved by VPO. Vet-LIRN cannot pay for treatment, or for diagnostic testing outside of the scope of the investigation.
- 10.2 Procurement and Billing Process: The following process needs to be followed in order to adhere to government regulations.
 - 10.2.1 The veterinarian must provide estimates so a Purchase Request can be prepared. Estimates should include items such as office visit(s), in-house diagnostic test costs, biopsy or pathology costs and additional charges such as potential shipping charges.
 - 10.2.2 A billing contact must be provided: include name, address, telephone + fax numbers, and email.
 - 10.2.3 Approved Purchase Request is required prior to beginning service.
 - 10.2.4 Additional services may only be initiated after authorized by Vet-LIRN, but must first be approved by VPO with an additional Purchase Request.
 - 10.2.5 Hospitals must provide an invoice to Vet-LIRN upon the completion of work before they can be paid. VPO is tax exempt. Taxes should be removed from all charges. The invoice must include the Vet-LIRN case number.

From: Jones, Jennifer L </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0F6CA12EAA9348959A4CBB1E829AF244-JENNIFER.JO>
To: Nemser, Sarah
Sent: 10/31/2018 3:50:12 PM
Subject: RE: DCM-help requesting MRx

That works 😊

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Nemser, Sarah
Sent: Wednesday, October 31, 2018 11:47 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: RE: DCM-help requesting MRx

No order, I move them into med rec requested folder and then request.

Sarah Nemser M.S.

Vet-LIRN Network Coordinator

tel: 240-402-0892

fax: 301-210-4685

sarah.nemser@fda.hhs.gov

From: Jones, Jennifer L
Sent: Wednesday, October 31, 2018 11:45 AM
To: Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Subject: RE: DCM-help requesting MRx

Thank you, are you starting at the top of the list or bottom?

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Nemser, Sarah
Sent: Wednesday, October 31, 2018 11:39 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Subject: RE: DCM-help requesting MRx

I am requesting some now 😊

Sarah Nemser M.S.

Vet-LIRN Network Coordinator

tel: 240-402-0892

fax: 301-210-4685

sarah.nemser@fda.hhs.gov

From: Jones, Jennifer L

Sent: Wednesday, October 31, 2018 9:51 AM

To: Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>

Subject: RE: DCM-help requesting MRx

I'm requesting a bunch now. Finally caught up on the 40 to triage! I'll handle any to B6 since there are a lot.

F:\6-CASES\800.267-EON-Multi-DCM-Cluster\2-Cases\07-email templates

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Reimschuessel, Renate

Sent: Tuesday, October 30, 2018 2:45 PM

To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>

Subject: RE: DCM-help requesting MRx

May take me till thurs to begin
Remind me where templates are

Renate Reimschuessel V.M.D. Ph.D. Director Vet-LIRN

Phone 1-240-402-5404

Fax 301-210-4685

<http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>

From: Jones, Jennifer L

Sent: Tuesday, October 30, 2018 11:38 AM

To: Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>

Subject: DCM-help requesting MRx

Hi team,

If the point of contact is Lisa Freeman, please don't followup on those. I'm in touch with her about several other cases, and she sends me updates.

We have an updated initial request email template. You can include the food statement if needed. I'm doing a

triage right now.
Thank you,
Jen

Jennifer L. A. Jones, DVM

Veterinary Medical Officer
U.S. Food & Drug Administration
Center for Veterinary Medicine
Office of Research
Veterinary Laboratory Investigation and Response Network (Vet-LIRN)
8401 Muirkirk Road, G704
Laurel, Maryland 20708
new tel: 240-402-5421
fax: 301-210-4685
e-mail: jennifer.jones@fda.hhs.gov
Web: <http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>



From:
To: Rotstein, David; Queen, Jackie L; Carey, Lauren; Palmer, Lee Anne
CC: Jones, Jennifer L; Nemser, Sarah; Ceric, Olgica; Reimschuessel, Renate
Sent: 8/28/2018 12:29:20 PM
Subject: 800.267 EON-358522; B6 Halo GF
Attachments: Mrx.zip

Interview +/- food pending
Will ask O if necropsy was performed

B6 – 4 yr MN Great Dane
No rDVM mrx per O
h/o B6 no other existing health conditions per cardio mrx; eats GF Halo

B6; ER visit for tachycardia; coughing, vomiting, and leth x1 week; PE: irregular heart rhythm, intermittent dropped pulses, harsh bilat BV sounds; EKG à tachycardia, absent/buried p waves, irregular RR interval; tFAST pleural fluid, min LV contract, incr LA size; aFAST peritoneal fluid à transferred to Tufts

B6 Tufts: HR 210-230, grade 2/6 murmur, weak pulses; echo à severe dilated LV w/ marked decr contract, thin LV walls, mod dilation LA, mild thicken mitral valve, trace pleural effusion, mild ascites, dilated hep vessels, FS: B6 DCM with secondary CHF, A-fib; started: B6 BID; WB tau

B6 recheck at Tufts; not eating well, lethargic; gallop, murmur 2/6; echo à large volume ascites, no pleural/pericard effusion; EKG à a-fib, HR 220, rare B6 is removed B6L straw fluid; BW showed B6 s; added B6 dose
Died at home B6

From: Rotstein, David

Sent: Monday, July 9, 2018 9:13 AM

To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>

Subject: more DCMFW: Halo grain-free dry food (exact variety unknown): Lisa Freeman - EON-358522

David Rotstein, DVM, MPVM, Dipl. ACVP
CVM Vet-LIRN Liaison
CVM OSC/DC/CERT
7519 Standish Place
240-506-6763 (BB)



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From: PFR Event [mailto:pfreventcreation@fda.hhs.gov]

Sent: Monday, July 09, 2018 9:00 AM

To: Cleary, Michael * <Michael.Cleary@fda.hhs.gov>; HQ Pet Food Report Notification <HQPetFoodReportNotification@fda.hhs.gov> [B6]

Subject: Halo grain-free dry food (exact variety unknown): Lisa Freeman - EON-358522

A PFR Report has been received and PFR Event [EON-358522] has been created in the EON System.

A "PDF" report by name "2051557-report.pdf" is attached to this email notification for your reference.

Below is the summary of the report:

EON Key: EON-358522

ICSR #: 2051557

EON Title: PFR Event created for Halo grain-free dry food (exact variety unknown); 2051557

AE Date	[B6]	Number Fed/Exposed	
Best By Date		Number Reacted	1
Animal Species	Dog	Outcome to Date	Stable
Breed	Great Dane		
Age	[B6] Years		
District Involved	PFR-New England DO		

Product information

Individual Case Safety Report Number: 2051557

Product Group: Pet Food

Product Name: Halo grain-free dry food (exact variety unknown)

Description: DCM and CHF Taurine not measured

Submission Type: Initial

Report Type: Adverse Event (a symptom, reaction or disease associated with the product)

Outcome of reaction/event at the time of last observation: Stable

Number of Animals Reacted With Product: 1

Product Name	Lot Number or ID	Best By Date
Halo grain-free dry food (exact variety unknown)		

Sender information

Lisa Freeman

200 Westboro Rd

North Grafton, MA 01536
USA

Owner information

B6

USA

To view this PFR Event, please click the link below:

<https://eon.fda.gov/eon//browse/EON-358522>

To view the PFR Event Report, please click the link below:

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jspx?decorator=none&e=0&issueType=12&issueId=375146>

=====

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Failure to adhere to the above provisions could result in removal from the approved distribution list. If you think you received this email in error, please send an email to FDAReportableFoods@fda.hhs.gov immediately.

From: Jones, Jennifer L </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0F6CA12EAA9348959A4CBB1E829AF244-JENNIFER.JO>
To: Reimschuessel, Renate; Ceric, Olgica; Nemser, Sarah; Peloquin, Sarah
Sent: 1/30/2019 1:19:09 PM
Subject: 800.267-DCM plans
Attachments: 800.267-Cases-All-summary-triage version-12-19-18-v2.xlsx; 800.267-VL Eval-No Followup-1.30.2019.xlsx

B5

B6

The EON# only for the cases we evaluate will be put into this spreadsheet: 800.267-VL Eval-No Followup (attached) and stored here: **B5**

The EON can be saved in this folder if no MRx: **B5**

B5

and this folder if there are MRx but no Echo: **B5**

B5

If we do follow-up on a case, it can be entered here: 800.267-Cases-All-summary-triage version-12.19.2018

We'll follow the same process of MRx request and summary for these cases.

Jennifer L. A. Jones, DVM

Veterinary Medical Officer
U.S. Food & Drug Administration
Center for Veterinary Medicine
Office of Research
Veterinary Laboratory Investigation and Response Network (Vet-LIRN)
8401 Muirkirk Road, G704
Laurel, Maryland 20708
new tel: 240-402-5421
fax: 301-210-4685
e-mail: jennifer.jones@fda.hhs.gov
Web: <http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>



B6

- CXR Report -

B6

B6

Final Report for Exam ID: 2546992

Patient ID: B6

Patient Name: B6

Sex: M ALTERED

Birthdate: B6

Weight: 95

Hospital Name: B6

Doctor Name: B6

Date of Exam: B6

Report Date: B6

Report ID: 2386236

Reader:

History

Consult Type: FILMINTERP, SIG: DOB: B6 Age: B6 Y, Sex: M ALTERED, Wt: 95lbs, Breed: Doberman, Species: CANINE, Images: 3, Case Details: Referred for potential toe mass. Chest X-rays revealed significant pleural effusion with suspected cardiomegaly. Echo confirmed cardiac disease with failure. Primary concern is cardiac disease and not neoplasia. Current meds: B5 PRN

Findings

Three lateral radiographic projections of the thorax dated 8/6/2018.

B6

Conclusion

Cardiomegaly consistent with patient history of cardiac disease. Pleural effusion and hepatomegaly with suspected mild peritoneal effusion is most concerning for right-sided cardiac dysfunction given patient history and constellation of radiographic findings. Increased interstitial opacity in the caudodorsal lung has differentials to include artifact secondary to partial atelectasis and superimposition of pleural fluid, however mild pulmonary edema cannot be ruled out. If clinically indicated a dorsoventral projection of the thorax could be considered for further evaluation of the caudal lung fields and vasculature. Degenerative changes of the spine and sternum.

B6

CXR Report -

B6

Recommendations

Continued radiographic monitoring of the thorax to assess response to treatment for heart failure are recommended to evaluate response to treatment and better evaluate for comorbidities.

Read By:

B6

DVM, DACVR

8/7/2018 11:22:52 AM UTC

To contact me : If you have any questions or concerns regarding this report or would like to discuss this case please contact me via email at:

B6

Patient ID

B6

Patient Name

B6

Page2

From: Jones, Jennifer L </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0F6CA12EAA9348959A4CBB1E829AF244-JENNIFER.JO>
To: Peloquin, Sarah
Sent: 9/19/2018 5:55:36 PM
Subject: FW: Name: [REDACTED] B6 - taurine
Attachments: Name: [REDACTED] B6 PDF

Filed.

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
Sent: Wednesday, September 19, 2018 11:16 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: FW: Name: [REDACTED] B6 - taurine

Taurine results

Lisa M. Freeman, DVM, PhD, DACVN
Board Certified Veterinary Nutritionist™
Professor
Cummings School of Veterinary Medicine
Friedman School of Nutrition Science and Policy
Tufts Clinical and Translational Science Institute
Tufts University
www.petfoodology.org

Cummings School of Veterinary Medicine

Clinical Pathology Laboratory
200 Westboro Road
North Grafton, MA 01536

Name/DOB: [B6]
Patient ID: [B6] Sex: CM Provider: [B6]
Phone number: [B6] Age: 6 Order Location: V320422 [B6] Fund Lipitor Study
Collection Date: 9/10/2018 2:31 PM Species: Canine Sample ID: 1809100105
Approval date: 9/18/2018 11:01 AM Breed: Great Dane

TEST NAME	IN RANGE	RESULT	OUT OF RANGE	RANGE	UNITS	REFERENCE RANGE
-----------	----------	--------	--------------	-------	-------	-----------------

Taurine: Whole Blood Level [B6]

Whole Blood Taurine [B6] [*_]
09/10/18 2:52 PM >200 nmol/ml=no risk for taurine deficiency nmol/mL 200-350

From: Jones, Jennifer L </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0F6CA12EAA9348959A4CBB1E829AF244-JENNIFER.JO>
To: Rotstein, David; Carey, Lauren; Palmer, Lee Anne; Queen, Jackie L
CC: Ceric, Olgica; Nemser, Sarah; Peloquin, Sarah
Sent: 8/24/2018 6:41:49 PM
Subject: RE: 800.267-EON-354251; [B6] 4Health large breed dry food
Attachments: EON-354199-251-Tufts-MRx-combined.pdf

Food, interview, rDVM MRx pending

[B6] 2 yr MC Great Dane
[B6] -developed a hacking cough w/ panting, worse at pm after 2 weeks ago had a sedation to remove porcupine quills; past week progressive cough w/ lethargy, hyporexia; when occurred owners changed diet from 4Health to Purina dry w/ wet to entice his appetite
Endoscopy-no quills à continued cough à X-rad: cargiomeg w/ LA enlarge & Pulm edema à Tufts
[B6] Tufts PE: global MCS; [B6] dehyd, HR [B6] bpm, RR [B6] rpm, CRT 2 sec, Gr II/VI left murmur, mild periodontal dz, harsh lung sounds bilat, mildly wobbly on ambulation (recent ax)
Cardio PE: weak art. Pulse, gallop rhythm, mild dyspnea
Echo: DCM (LV/LA mark dil), +2 MV, +1 TV regurge, dec pulm/aortic velocity
TFAST/AFAS: b-lines, LV dil w/ Ltd contractility
Labs: inc Lact [B6]
Tx: [B6]
[B6] PE: BCS 4/9, Gr I-II/VI left apical sys, enophthalmia
ECG: freq VPCs w/ 2 VPC couplets; X-Rads: resolved PE w/ persis pulm v distention, mild improved moderate cardiomeg
Tau: [B6]
[B6] occ cough, walks 1.5-2 mi SID, not yet started L-carn
PE: sinus arrhyth w/ premature beats
ECG: nsr; Chem/T4 nsf
[B6] died

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Rotstein, David
Sent: Monday, May 21, 2018 8:05 AM
To: Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Subject: RE: 4Health large breed dry food: Lisa Freeman - EON-354251

Thank you Lauren!

David Rotstein, DVM, MPVM, Dipl. ACVP
CVM Vet-LIRN Liaison
CVM OSC/DC/CERT
7519 Standish Place
240-506-6763 (BB)



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From: Carey, Lauren
Sent: Monday, May 21, 2018 8:02 AM
To: Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>
Subject: FW: 4Health large breed dry food: Lisa Freeman - EON-354251

PFR for the RFR.

From: PFR Event [<mailto:pfreventcreation@fda.hhs.gov>]
Sent: Monday, May 21, 2018 8:00 AM
To: Cleary, Michael * <Michael.Cleary@fda.hhs.gov>; HQ Pet Food Report Notification <HQPetFoodReportNotification@fda.hhs.gov>; B6
Subject: 4Health large breed dry food: Lisa Freeman - EON-354251

A PFR Report has been received and PFR Event [EON-354251] has been created in the EON System.

A "PDF" report by name "2048125-report.pdf" is attached to this email notification for your reference.

Below is the summary of the report:

EON Key: EON-354251
ICSR #: 2048125
EON Title: PFR Event created for 4Health large breed dry food; 2048125

AE Date	05/18/2018	Number Fed/Exposed	1
Best By Date		Number Reacted	1
Animal Species	Dog	Outcome to Date	Unknown
Breed	Great Dane		
Age	2 Years		
District Involved	PFR-New England DO		

Product information

Individual Case Safety Report Number: 2048125

Product Group: Pet Food

Product Name: 4Health large breed dry food

Description: Reported as RFR EON-354199. 2 year old Great Dane with DCM and CHF. Has eaten 4Health dog food (large breed dry) since 6/2016. Taurine levels pending. Owner has switched to another food and has saved the 4Health food

Submission Type: Initial

Report Type: Adverse Event (a symptom, reaction or disease associated with the product)

Outcome of reaction/event at the time of last observation: Unknown

Number of Animals Treated With Product: 1

Number of Animals Reacted With Product: 1

Product Name	Lot Number or ID	Best By Date
4Health large breed dry food		

Sender information

Lisa Freeman
200 Westboro Rd
North Grafton, MA 01536
USA

Owner information

B6 USA

To view this PFR Event, please click the link below:

<https://eon.fda.gov/eon//browse/EON-354251>

To view the PFR Event Report, please click the link below:

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jspx?decorator=none&e=0&issueType=12&issueId=370733>

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Cummings

Veterinary Medical Center

AT TUFTS UNIVERSITY

Cardiology Liaison: 508-887-4696

B6

Patient ID: **B6**

B6

Canine

B6 Years Old Male (Neutered) Great Dane
Blue

Cardiology Appointment Report

Date: 5/25/2018

Attending Cardiologist:

John E. Rush DVM, MS, DACVIM (Cardiology), DACVECC

B6

Cardiology Resident:

B6

Cardiology Technician:

B6

Student:

B6

Presenting Complaint:

Recheck DCM - CHF on **B6**

Concurrent Diseases:

None

General Medical History:

Almost back to his baseline since last discharge on **B6** great appetite and no v/d/s. Occasional cough after he eats/drinks fast

Goes for 1.5~2mile walk daily

Respiratory rate had been between 18-24, was at 35 once so gave a dose of **B6** and it helped.

B6 may be having trouble gaining weight

Diet and Supplements:

Purina proplan high performance dog food 3 cups BID

Purina proplan 1 can SID

High calory syrup covered medication

Also planning to start him on **B6** supplements tomorrow

Cardiovascular History:

Prior CHF diagnosis? Yes
Prior ATE? No
Prior arrhythmia? Yes occasional VPCs
Cough? Yes after drinking/eating
Shortness of breath or difficulty breathing? no
Syncope or collapse? no
Sudden onset lameness? no
Exercise intolerance? No
Prior heart murmur? yes grade II left apical systolic murmur

Current Medications Pertinent to CV System:

B6

Cardiac Physical Examination:

B6

Muscle condition:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Normal | <input type="checkbox"/> Moderate cachexia |
| <input type="checkbox"/> Mild muscle loss | <input type="checkbox"/> Marked cachexia |

Cardiovascular Physical Exam:

Murmur Grade:

- | | |
|---|--------------------------------|
| <input type="checkbox"/> None | <input type="checkbox"/> IV/VI |
| <input type="checkbox"/> I/VI | <input type="checkbox"/> V/VI |
| <input checked="" type="checkbox"/> II/VI | <input type="checkbox"/> VI/VI |
| <input type="checkbox"/> III/VI | |

Murmur location/description: Left apical systolic murmur

Jugular vein:

- Bottom 1/3 of neck
- Middle 1/3 of neck

- Top 2/3rd of neck

Arterial pulses:

- Weak
- Fair
- Good
- Strong

- Bounding
- Pulse deficits
- Pulsus paradoxus
- Other:

Arrhythmia:

- None
- Sinus arrhythmia
- Premature beats

- Bradycardia
- Tachycardia

Gallop:

- Yes
- No
- Intermittent

- Pronounced
- Other:

Pulmonary assessments:

- Eupneic
- Mild dyspnea
- Marked dyspnea
- Normal BV sounds

- Pulmonary crackles
- Wheezes
- Upper airway stridor

Abdominal exam:

- Normal
- Hepatomegaly
- Abdominal distension

- Mild ascites
- Marked ascites

Problems:

DCM and hx of HCF
Grade II/VI left systolic murmur
VPC's
Not gaining weight

Differential Diagnoses:

DCM
benign VPC, splenic mass, pain, cardiomyopathy
insufficient caloric intake, hyperthyroidism,

Diagnostic plan:

- Echocardiogram
- Chemistry profile
- ECG
- Renal profile
- Blood pressure
- Dialysis profile
- Thoracic radiographs
- NT-proBNP
- Troponin I
- Other tests: T4

Echocardiogram Findings:

General/2-D findings:

Not performed

ECG findings:

NSR.

Assessment and recommendations:

The patient is clinically doing well, although the owner had to give a since discharge. If renal values are normal today, then I would recommend We have also recommended a food change to help with weight gain and for low Na intake. Recheck echocardiogram, renal values, and ECG in 3-4 months.

Final Diagnosis:

DCM with history of LCHF

Heart Failure Classification Score:

ISACHC Classification:

- | | |
|--|-------------------------------|
| <input type="checkbox"/> Ia | <input type="checkbox"/> IIIa |
| <input type="checkbox"/> Ib | <input type="checkbox"/> IIIb |
| <input checked="" type="checkbox"/> II | |

ACVIM Classification:

- | | |
|-----------------------------|---------------------------------------|
| <input type="checkbox"/> A | <input checked="" type="checkbox"/> C |
| <input type="checkbox"/> B1 | <input type="checkbox"/> D |
| <input type="checkbox"/> B2 | |

Cummings Veterinary Medical Center

AT TUFTS UNIVERSITY
Cardiology Liaison: 508-887-4696

B6

Patient ID:

Canine

Years Old Male (Neutered) Great

Dane

Blue BW: Weight(lbs) 0.00

Cardiology Inpatient

Date:

Weight: Weight(lbs) 0.00

Attending Cardiologist:

John E. Rush DVM, MS, DACVIM (Cardiology), DACVECC

B6

Cardiology Resident:

B6

Thoracic radiographs available for review?

- Yes - in ER email
- Yes - in PACS
- No

Presenting complaint and important concurrent diseases:

suspect CHF with enlarged heart, suspect DCM

Current medications and doses:

mg/kg IV once

Key indication for consultation: (murmur, arrhythmia, needs fluids, etc.):

murmur, tachycardia, enlarged heart on rads with B-lines and pulmonary edema on rads

Questions to be answered from the Consult:

medication recommendations

Is your consult time-sensitive? (e.g., anesthesia today, owner waiting, trying to get biopsy today)

- Yes (explain)
- No

STOP - remainder of form to be filled out by Cardiology

Physical Examination

B6

Muscle condition:

- Normal
- Mild muscle loss
- Moderate cachexia
- Marked cachexia

Cardiovascular Physical Exam

Murmur Grade:

- None
- I/VI
- II/VI
- III/VI
- IV/VI
- V/VI
- VI/VI

Murmur location/description: left apical systolic

Jugular vein:

- Bottom 1/3 of neck
- Middle 1/3 of neck
- Top 2/3 of neck

Arterial pulses:

- Weak
- Fair
- Good
- Strong
- Bounding
- Pulse deficits
- Pulsus paradoxus
- Other (describe):

Arrhythmia:

- None
- Sinus arrhythmia
- Premature beats
- Bradycardia
- Tachycardia

Gallop:

- Yes
- No
- Intermittent
- Pronounced
- Other:

Pulmonary assessments:

- Eupneic
- Mild dyspnea
- Marked dyspnea
- Normal BV sounds
- Pulmonary Crackles
- Wheezes
- Upper airway stridor
- Other auscultatory findings:

Abdominal exam:

- Normal
- Hepatomegaly
- Abdominal distension
- Mild ascites

Exam Exam Exam

B6

Doppler findings:

B6

Radiographic findings:

rDVM radiographs: severe generalized cardiomegaly with left atrial enlargement. The pulmonary vessels are distended. There is a diffuse interstitial pattern in the caudal lung field.

Assessment and recommendations:

Echocardiogram reveals DCM with a markedly enlarged LA and active CHF. Recommend starting

B6 The patient was moderately dyspneic during the examination with diffuse crackles and recommend **B6**

B6 Once the patient is home and eating with a good appetite, then an **B6** **B6** should be started as well. The MR gradient was low and ideally a blood pressure should be obtained. The patient has a history of eating an atypical diet in the past and DCM related to the diet remains a possibility since the patient is relatively young. Taurine level will be submitted. Recommend continuing with a more "typical" commercial diet that is not grain free and taurine supplementation could be started as well. Recheck renal values prior to discharge. A recheck echocardiogram is recommended in 3 months or sooner if the patient develops clinical signs such as increased RR/RE, cough, exercise intolerance, or syncope.

Final Diagnosis:

- Advanced DCM with severe LA enlargement and active CHF r/o genetic vs. nutritional

Heart Failure Classification Score:

ISACHC Classification:

- Ia
- Ib
- II
- IIIa
- IIIb

ACVIM CHF Classification:

- A
- B1
- B2
- C
- D

M-Mode

IVSd

LVIDd

LVPWd

IVSs

LVIDs

LVPWs

%FS

Ao Diam

LA Diam

LA/Ao

EPSS

B6

cm

cm

cm

cm

cm

cm

%

cm

cm

cm

M-Mode Normalized

IVSdN	(0.29 - 0.52)
LVIDdN	(1.35 - 1.73) !
LVPWdN	(0.33 - 0.53)
IVSsN	(0.43 - 0.71) !
LVIDsN	(0.79 - 1.14) !
LVPWsN	(0.53 - 0.78) !
Ao Diam N	(0.68 - 0.89) !
LA Diam N	(0.64 - 0.90) !

2D

SA LA	cm
Ao Diam	cm
SA LA / Ao Diam	
IVSd	cm
LVIDd	cm
LVPWd	cm
EDV(Teich)	ml
IVSs	cm
LVIDs	cm
LVPWs	cm
ESV(Teich)	ml
EF(Teich)	%
%FS	%
SV(Teich)	ml
LVLd A4C	cm
LVEDV MOD A4C	ml
LVLs A4C	cm
LVESV MOD A4C	ml
LVEF MOD A4C	%
SV MOD A4C	ml

B6

Doppler

MR Vmax	m/s
MR maxPG	mmHg
MV E Vel	m/s
MV DecT	ms
MV A Vel	m/s
MV E/A Ratio	
E'	m/s
A'	m/s
E/E'	
PV Vmax	m/s
PV maxPG	mmHg
TR Vmax	m/s
TR maxPG	mmHg

Date/Time	Attached By	Note	Patient	Has Document
7/26/2018 6:19 PM	lfreem01	LMOM. Said I was sorry about [B6] and hope she's doing ok. Explained that i'm a nutritionist at Tufts and working on a potential association between diet and DCM. FDA is interested in learning more about [B6] but I wanted to talk to her first to see if she's willing to let me share medical records and for FDA to contact owner. Please call back and I will answer any questions she might have.	[B6]	<input type="checkbox"/>
[B6] 3:51 PM	[B6]	LMOM, want to know what happened, we are very sorry to hear that [B6] passed away. Please give us a call if you want to talk.	[B6]	<input type="checkbox"/>
[B6] 8:31 AM	[B6]	Email from Switchboard Operator to MedRec: "Sat [B6] 12:55 PM Good Afternoon Medical Records Team, [B6] owner called in to let us know that [B6] unfortunately passed today. Best, [B6] [B6] account has been changed to "deceased". - [B6]	[B6]	<input type="checkbox"/>
[B6] 6:36 PM	[B6]	owner called, spoke with both the operator and myself re: message left by student earlier today. The operator tried to get a hold of both [B6] and the student. I tried to help the owner with her questions re: a new [B6] She had questions re: counting Resp Rates prior to giving the medication since that is what she has done in the past. There were no notes re: the Resp rates, so I could not help with confidence as to what the owner should do. I transferred her back to the operator for the operator to email [B6] re: the owner's questions. [B6]	[B6]	<input type="checkbox"/>
[B6] 5:32 PM	[B6]	LMOM: Told O that the thyroid level was within the normal range. And his kidney values are normal range as well, so we would like to increase the dose of [B6] as he had one episode of increased respiratory rate and effort. The new regimen we recommend is 100mg [B6] BID the first day, then 100mg [B6] in the morning, 150mg during the day, and then 100mg in the evening (total TID) regime. Also told O that if this doesn't work out with her schedule, she can do 100mg [B6] BID first day, and 150mg [B6] BID second day in alternating pattern. Told O to call back if confused. [B6]	[B6]	<input type="checkbox"/>
[B6] 4:46 PM	[B6]	SWO said Friday [B6] at 3pm we have a slot for [B6] with [B6] to check his kidney value and also his thyroid level if it is indicated. O will bring [B6] then [B6]	[B6]	<input type="checkbox"/>

B6

Client Notes
for **B6**

Date/Time	Attached By	Note	Patient	Has Document
B6 4:39 PM	B6	SWO O wondering if we drew blood for his thyroid level while he was here. Told O that we did not check thyroid level. O wondering because she read in the web that hypothyroidism can cause DCM in some dogs and was wondering if B6 has hypothyroidism or not. Told O if she really wants to check it she can request the blood work to be done when B6 comes for kidney value rechecked in a week or so. By then, we might get his B6 level back to and investigate multiple potential causes for DCM at once. Also recommended making an appointment with Internal medicine if she really wants to figure out why she is having a hard time giving weight to B6 O understands and said probably make an appointment with B6 and request T4 when B6 comes here for kidney value recheck. B6	B6	<input type="checkbox"/>
B6 4:39 PM	B6	SWO told O that the instruction on the discharge is incorrect and the instruction on the bottle is correct; B6 should be receiving 1 tablet of B6 twice a day. Apologized to O, O understands. B6		<input type="checkbox"/>
B6 3:47 PM	B6	SWO regarding the callbacks. O was wondering when to start the B6 and told her since B6 is eating fine, we're good to start it today. O was wondering potential causes of DCM on dogs from the information she got on the internet. Told O that current evidence suggest genetic predisposition and taurine deficiency are the big two factors, and not probably quills entering her arteries. O wishes to see the chest radiograph when she comes back for recheck to take the photo of the radiograph. O would like us to point out the fluid in B6 lungs. O very appreciative of the call and has no other questions. B6		<input type="checkbox"/>
B6 5:45 PM	B6	Reported case to FDA as potential diet-related DCM		<input type="checkbox"/>

Discharge Instructions

Patient

Name: B6
Species: Canine
Blue Male (Neutered) Great Dane
Birthdate: B6

Owner

Name:
Address: B6

Patient ID: B6

Attending Cardiologist:

John E. Rush DVM, MS, DACVIM (Cardiology), DACVECC

B6

Cardiology Resident:

B6

Student: B6

Cardiology Technician:

B6

Admit Date: B6

Discharge Date: B6

Diagnoses: Dilated cardiomyopathy (DCM) with congestive heart failure

Diagnostic test results and findings:

Chest radiograph (x-ray) findings: The heart is enlarged and there is fluid in the lungs

Echocardiogram findings: All chambers of the heart are enlarged and there is a leak at the mitral valve

ECG findings: The ECG showed frequent ventricular premature contractions (VPC) with few couplets (2 VPC's occurring side by side)

Labwork findings:

The kidney values are slightly elevated, but should be good enough to continue the current medication.

The results of the blood taurine level is still pending, we will call you as soon as that becomes available.

Case summary:

Thank you so much for entrusting us with B6 care! B6 presented to Tufts ER on B6 through referral from your primary veterinarian who found enlarged heart and fluid in his lungs on chest x-rays.

At Tufts, with further diagnostic tests, B6 has been diagnosed with a primary heart muscle disease called dilated cardiomyopathy (DCM). This disease is more common in large and giant breed dogs and is characterized by thinning of the walls of the heart, reduced cardiac pump function, and enlargement of the upper chambers of the heart. Many dogs with DCM will also have significant arrhythmias which can be life-threatening and also require medical management. The heart enlargement has now progressed to the point of congestive heart failure, meaning that fluid is backing up into the lungs or belly. Unfortunately this is a progressive disease and we cannot reverse the changes to the heart muscle, however we can

use cardiac medications and some changes to the diet to make [B6] comfortable and have him breathing easier.

His ECG revealed that [B6] had some abnormal contraction of his heart called ventricular premature contractions (VPC). Many of the VPCs were isolated, but we did find couple incidences where two of the VPCs were closely associated with one another (a couplet). Since the heart failure is known to cause arrhythmias, and the medication we would use is not benign either, we would like to monitor his ECG at his next recheck in 1-2 weeks to see if he continue to have abnormal rhythms.

We have hospitalized [B6] overnight with aggressive medical management (bloodwork, ECG monitoring, medication), and [B6] recovered throughout the night. The recheck x-ray of his chest showed that there are no more fluid in his lungs, so we are comfortable sending him home with you today.

Monitoring at home:

- We would like you to monitor [B6] breathing rate and effort at home, ideally during sleep or at a time of rest. The doses of drugs will be adjusted based on the breathing rate and effort.
- In general, most dogs with heart failure that is well controlled have a breathing rate at rest of less than 35 to 40 breaths per minute. In addition, the breathing effort, noted by the amount of belly wall motion used for each breath, is fairly minimal if heart failure is controlled.
- An increase in breathing rate or effort will usually mean that you should give an extra dose of [B6] if difficulty breathing is not improved by within 30-60 minutes after giving extra [B6]; then we recommend that a recheck exam be scheduled and/or that your dog be evaluated by an emergency clinic.
- There are instructions for monitoring breathing, and a form to help keep track of breathing rate and drug doses, on the Tufts HeartSmart web site (<http://vet.tufts.edu/heartsmart/at-home-monitoring/>).
- We also want you to watch for weakness or collapse, a reduction in appetite, worsening cough, or distention of the belly as these findings indicate that we should do a recheck examination.
- If you have any concerns, please call or have [B6] evaluated by a veterinarian. Our emergency clinic is open 24 hours/day.

Recommended Medications:

B6

Diet suggestions:

Dogs with heart failure accumulate more fluid in their body if they eat large amounts of sodium (salt). Sodium can be found in all foods, but some foods are lower in sodium than others. Many pet treats, people foods, and supplements used to give pills often have more sodium than is desirable - a sheet that has suggestions for low sodium treats can be found on the HeartSmart web site (<http://vet.tufts.edu/heartsmart/diet/>)

Because [B6] had been fed a diet that is potentially deficient in taurine (amino acids that plays a role in building heart muscles) levels, we recommend supplementing [B6] with taurine for at least another 6 months.

[B6] may also benefit from getting L-carnitine supplement. The recommended dose of L-carnitine for [B6] is [B6]. [B6] You can find over-the-counter product for L-carnitine supplements, and there is no need to obtain prescription for it.

Exercise Recommendations:

For the first 7 to 10 days after starting medications for heart failure we recommend very limited activity. Leash walking only is ideal, and short walks to start. Once the heart failure is better controlled, then slightly longer walks are acceptable. However, if you find that [B6] is lagging behind or needs to stop on a walk then this was too long a walk and shorter walks are advised in the future. Repetitive or strenuous high energy activities (repetitive ball chasing, running fast off-leash, etc.) are generally not advised at this stage of heart failure.

Recheck Visits:

A recheck visit is recommended in 1-2 weeks. At this visit we will check your dog's breathing effort and heart function, do a blood test to recheck kidney values, and recheck [B6] ECG readings. If we continue to find VPCs that concerns us, we may prescribe an anti-arrhythmic medication for him.

A recheck echocardiogram is recommended in 3-4 months.

Thank you for entrusting us with [B6] care. Please contact our Cardiology liaison, [B6] or email us at cardiovet@tufts.edu for scheduling and non-emergent questions or concerns.

Sincerely,

[B6]

Please visit our HeartSmart website for more information

<http://vet.tufts.edu/heartsmart/>

Prescription Refill Disclaimer:

For the safety and well-being of our patients, your pet must have had an examination by one of our veterinarians within the past year in order to obtain prescription medications.

Ordering Food:

Please check with your primary veterinarian to purchase the recommended diet(s). If you wish to purchase your food from us, please call 7-10 days in advance (508-887-4629) to ensure the food is in stock. Alternatively, veterinary diets can be ordered from online retailers with a prescription/veterinary approval.

Clinical Trials:

Clinical trials are studies in which our veterinary doctors work with you and your pet to investigate a specific disease process or a promising new test or treatment. Please see our website: vet.tufts.edu/cvmc/clinical-studies

Case: [B6]

Owner: [B6]

Discharge Instructions

Discharge Instructions

Patient

Name: B6

Species: Canine

Blue Male (Neutered) Great Dane

Birthdate: B6

Owner

Name: B6

Address: B6

Patient ID: B6

Attending Cardiologist: John E. Rush DVM, MS, DACVIM (Cardiology), DACVECC

B6

Student: B6

Cardiology Technician:

B6

Admit Date: B6

Discharge Date: B6

Diagnoses:

Dilated cardiomyopathy (DCM) with congestive heart failure

Clinical Findings:

Thank you for bringing B6 to Tufts Cardiology Service for recheck of his heart function. We're happy to hear that B6 is back to his baseline in terms of appetite and activity level. Keep up the good work! You report that B6 did have one episode of increased respiratory rate which led you to give an additional dose of B6

We took the blood sample from B6 today and submitted it for kidney values as well as thyroid hormone level. We will call you (or leave a message as you may be on a vacation) and email you of the results once they get available. Until we get the result, please continue B6 on the current medication regimen.

We also did a quick electrocardiogram check of B6 heart, and we did not see previously noted VPC's. Which is good news!

Monitoring at Home:

We would like you to monitor B6 breathing rate and effort at home, ideally during sleep or at a time of rest. The doses of drugs will be adjusted based on the breathing rate and effort. In general, most dogs with heart failure that is well controlled have a breathing rate at rest of less than 35 to 40 breaths per minute. In addition, the breathing effort, noted by the amount of belly wall motion used for each breath, is fairly minimal if heart failure is controlled. An increase in breathing rate or effort will usually mean that you should give an extra dose of B6 if difficulty breathing is not improved by within 30-60 minutes after giving extra B6 then we recommend that a recheck exam be scheduled and/or that your dog be evaluated by an emergency clinic. There are instructions for monitoring breathing, and a form to help keep track of breathing rate and drug doses, on the Tufts HeartSmart web site (<http://vet.tufts.edu/heartsmart/at-home-monitoring/>). We also want you to watch for weakness or collapse, a reduction in appetite, worsening cough, or distention of the belly as these findings indicate that we should do a recheck examination.

If you have any concerns, please call or have [B6] evaluated by a veterinarian. Our emergency clinic is open 24 hours/day.

Diet Suggestions:

As discussed, we have talked to our nutritionist for low sodium diet that's appropriate for [B6]. They have recommended Purina ONE Smartblend Healthy Puppy Formula

(<https://www.chewy.com/purina-one-smartblend-large-breed/dp/375880>) for [B6]. We recommend giving 6 cups of this food per day total (so 3 cups in the morning and 3 cups in the dinner schedule works well). We understand this diet is indicated for puppies, but considering his need to gain weight, we think this diet is the best option while meeting the low sodium requirement of cardiac patients. Please monitor his weight regularly and increase the amount fed as needed.

You mentioned that you are using high calory syrup to coat medication for [B6]. We ask you to check the sodium content in that syrup and find a better alternative if the sodium level is too high. You can visit Tufts HeartSmart website for low sodium treat options.

You can start the supplements you've ordered for [B6] anytime!

Exercise Recommendations:

You can take [B6] for a longer walks. As discussed, dogs with heart disease are usually good at self-regulating the amount of exercise they get, so please do not push [B6] he seemed exhausted and tired.

Recommended Medications:

****Please note that we may adjust the doses and frequency of these medication depending on what we find on bloodwork****

B6

Recheck Visits:

A recheck echocardiogram is recommended in 3-4 months. Please schedule this as soon as possible as our appointment slots tends to fill up very quickly and may need to be scheduled up to 4 months in advance. Please contact our Cardiology liaison, [B6] or email us at cardiovet@tufts.edu for scheduling and non-emergent questions or concerns.

Thank you for entrusting us with [B6] care. He is such a good boy, and always a pleasure to work with!

Please visit our HeartSmart website for more information

<http://vet.tufts.edu/heartsmart/>

Prescription Refill Disclaimer:

For the safety and well-being of our patients, your pet must have had an examination by one of our veterinarians within the past year in order to obtain prescription medications.

Ordering Food:

Please check with your primary veterinarian to purchase the recommended diet(s). If you wish to purchase your food from us, please call 7-10 days in advance (508-887-4629) to ensure the food is in stock. Alternatively, veterinary diets can be ordered from online retailers with a prescription/veterinary approval.

Clinical Trials:

Clinical trials are studies in which our veterinary doctors work with you and your pet to investigate a specific disease process or a promising new test or treatment. Please see our website: vet.tufts.edu/cvmc/clinical-studies

Case: [B6]

Owner: [B6]

Discharge Instructions

B6

B6

3:41:18 PM

Tufts University
Tufts Cummings School of Vet Med
Cardiology

B6

B6

B6

3:41:46 PM

Tufts University
Tufts Cummings School of Vet Med
Cardiology

B6

Client:
 Veterinarian:
 Patient ID:
 Visit ID:

Patient:
 Species: Canine
 Breed: Great Dane
 Sex: Male (Neutered)
 Age: Years Old

Lab Results Report

Chemistry 21 (Cobas)		<input type="text" value="B6"/>	3:57:20 PM	Accession ID: <input type="text" value="B6"/>
Test	Results	Reference Range	Units	
GLUCOSE	<input type="text" value="B6"/>	67 - 135	mg/dL	
UREA		8 - 30	mg/dL	
CREATININE		0.6 - 2	mg/dL	
PHOSPHORUS		2.6 - 7.2	mg/dL	
CALCIUM2		9.4 - 11.3	mg/dL	
T. PROTEIN		5.5 - 7.8	g/dL	
ALBUMIN		2.8 - 4	g/dL	
GLOBULINS		2.3 - 4.2	g/dL	
A/G RATIO		0.7 - 1.6		
SODIUM		140 - 150	mEq/L	
CHLORIDE		106 - 116	mEq/L	
POTASSIUM		3.7 - 5.4	mEq/L	
NA/K		29 - 40		
T BILIRUBIN		0.1 - 0.3	mg/dL	
D.BILIRUBIN		0 - 0.1	mg/dL	
I BILIRUBIN		0 - 0.2	mg/dL	
ALK PHOS		12 - 127	U/L	
ALT		14 - 86	U/L	
AST		9 - 54	U/L	
CHOLESTEROL		82 - 355	mg/dL	
OSMOLALITY (CALCULATED)	291 - 315	mmol/L		

T4 Add On/Clin Path		<input type="text" value="B6"/>	5:57:00 PM	Accession ID: <input type="text" value="B6"/>
Test	Results	Reference Range	Units	
T4/TOSOH	<input type="text" value="B6"/>	1 - 4.1	ug/dl	

Radiology Request & Report

Patient

Name: B6
Species: Canine
Blue Male (Neutered) Great Dane
Birthdate: B6

Owner

Name: B6
Address: B6

Patient ID: B6
Date of request: B6

Attending Clinician: B6 (Resident, Cardiology)

Student:

Date of exam: B6

Patient Location: Ward/Cage: ICU run 2

Weight (kg) 46.10

Sedation

- Inpatient
- Outpatient Time:
- Waiting
- Emergency

- BAG
- OBAG
- 1/2 dose OBAG
- DexDomitor/Butorphanol
- Anesthesia to sedate/anesthetize

Examination Desired: IA 1 view lateral

Presenting Complaint and Clinical Questions you wish to answer:

****Active heart failure**** Great Dane, so please use large animal radiograph machine for 1 view lateral
Want to know if there is any signs of active congestion

Pertinent History:

2yo MN great dane with history of 2 week long cough and panting. Dx with DCM and CHF yesterday

Findings:

RIGHT LATERAL THORAX, TWO VIEWS. Compared to rDVM images in stringsoft.

The cardiac silhouette is mildly generally enlarged with the impression of being mildly smaller in size compared to the rDVM study. The cranial lobar vein remains mildly enlarged compared to the artery and the tertiary vessels within the caudodorsal lung field are more conspicuous than typically expected. The previously noted interstitial pattern has resolved. There are three ECG lead pads overlying the lateral thorax.

There are non-obstructive mineral opaque foci within the region of pylorus and intestines

cranioventrally. The visible osseous structures are normal.

Conclusions:

- Resolution of pulmonary edema with persistence of pulmonary venous distention.
- Mildly improved moderate cardiomegaly consistent with reported DCM.

Radiologists

Primary: [B6]

Reviewing:

Dates

Reported: [B6]

Finalized:

18901
18902

B6

Sample Submission Form

Amino Acid Laboratory
University of California, Davis
1020 Vet Med 3B
1089 Veterinary Medicine Drive
Davis, CA 95616
Tel: (530)752-5058, Fax: (530)752-4698

UC CUSTOMERS ONLY:
Non-federal funds ID/Account Number
to bill: _____

<http://www.vetmed.ucdavis.edu/vmb/aal/aal.html>

Vet/Tech Contact: **B6**

Company Name: Tufts Cummings School of Veterinary Medicine

Address: 200 Westboro Road

North Grafton, MA 01536

Email: clinpath@tufts.edu

Tel: 508-887-4669 Fax: 508-839-7936

Billing Contact: **B6** TAX ID: _____

Email: **B6**

Patient Name: **B6**

Species: CANINE

Owner's Name: **B6**

Sample Type: Plasma Whole Blood Urine Food Other: _____

Test Items: Taurine Complete Amino Acid Other: _____

Taurine Results (nmol/ml)

Plasma: **B6** Whole Blood: **B6** Urine: _____ Food: _____

Reference Ranges (nmol/ml)

	Plasma		Whole Blood	
	Normal Range	No Known Risk for Taurine Deficiency	Normal Range	No Known Risk for Taurine Deficiency
Cat	80-120	>40	300-600	>200
Dog	60-120	>40	200-350	>150

B6

B6 18 10:00 AM Canine
B6 PANEL
Lithium Heparin

Soap Text Created By - Veterinarian: Clinician, Unassigned FHSA - Updated on: **B6** 5:08:38 PM By: **B6** SIGNALMENT: 2yo MC Great Dane

PRESENTING COMPLAINT: ref: possible CHF

HISTORY:

2 weeks ago, P was quilled by a porcupine and had to be sedated for removal. After that time, he developed a hacking cough and panting. It got progressively worse over the past week. O has also noted that he has been lethargic with worse coughing and panting at night, as well as a decreased appetite. When this all occurred, P was switched from a low-protein For Health diet to Purine One with a high-calorie supplement as well as canned food to try to tempt **B6** to eat. Today, P went in to the rDVM to look for a quill as the cause of his cough. He was placed under GA for endoscopy which did not yield any results. The coughing continued, so rDVM took CXR which showed an enlarged heart and pulmonary edema. P was then referred to Tufts.

SUBJECTIVE:

QAR, mildly dehydrated <5%, BCS **B6**, MCS **B6**

OBJECTIVE:

B6

~~CV: tachycardic with grade II/VI Left-sided herat murmur. pulses good quality and synchronous. pink mm with CRT=2sec~~

B6

ASSESSMENT:

A1: Advanced DCM

A2: CHF

PLAN:

P1: **B6**
P2:
P3:
P4:
P5:
P6:
P7:

Diagnostics Completed:

rDVM CXR: DCM, CHF with **B6** (in ER email)

Tufts:

AFAST/TFAST: B-lines in most fields, LV dilation with limited contractility, negative for fluid

NOVA: Lactate [B6] (0-2), BUN=[B6], Creat=[B6]

PCV/TS: [B6]

Cardiology Consultation: DCM with LAE and mild MR

Code: [B6]

Estimate: [B6]

Client Comm:

Discussed with O that based on initial assessment and rDVM rads, concern for DCM and CHF. P has already been given [B6] to treat his failure and started on supplemental O2. Discussed diet with O - unlikely, but possibly nutritional in origin - now on appropriate diet. Most likely degenerative disease. General prognosis is 6-12mo, P needs to stay in-hospital overnight to help get him out of failure, then would go home on meds for the remainder of his life. Recommended starting with a cardiology consultation with echocardiogram, booking in for at least [B6] O agreed and wanted to wait for the consult before leaving.

Based on Cardiology evaluation, P's disease is very advanced, causing remodeling of all cardiac chambers and making his prognosis more like 3-6mo. Medications for him likely to cost [B6] month and P will need significant followup including bloodwork, CXR and echos. Repeated full conversation to both female O and male O during visit. Both would like to take him home ASAP and male O will be the one picking him up as female O is working.

[B6]

Soap Text Created By - Veterinarian: Clinician, Unassigned FHSA - Updated on: **B6** 7:55:20 AM By:

B6

History:

B6 is 2yo MN Great Dane who presented to Tufts Cardiology Service on **B6** for DCM and CHF. Initially presented to Tufts ER on **B6** for 2 week history of coughing and panting. **B6** got quilled by a porcupine 2 weeks ago and had to be sedated for the removal. Since then, owners noticed **B6** coughing and panting. **B6** cough was worse at night and he started to have decreased appetite as well. On **B6** went to rDVM for endoscopy under general anesthesia to look for a quill as the cause of his cough. At this visit, rDVM took CXR that revealed enlarged heart and pulmonary edema.

Current medications:

B6

Overnight Update:

B6 recovered since his initial presentation where his resp rate was between 12-28 per minute, and his appetite has returned with normal urination as well. Review of his ECG revealed that he had frequent VPC's throughout the night with 2 episodes of VPC couplets. BAR upon morning examination and had normal breathing effort.

Subjective:

B6

Objective:

B6

Heart: grade I-II/VI left apical systolic murmur, femoral pulse good and synchronous, no gallop or arrhythmia ausculted

B6

Diagnostics Completed:

B6

AFAST/TFAST: B-lines in most fields, LV dilation with limited contractility, negative for fluid

NOVA: Lactate **B6** (0-2), BUN=**B6**, Creat=**B6**

PCV/TS: **B6**

Cardiology Consultation: DCM with LAE and mild MR

Assessments:

A1: CHF secondary to DCM - improving

A2: Frequent VPC's with 2 episodes of couplets

Plan:

P1:

P2:

P3:

P4:

P4:

B6

SOAP completed by:

B6

SOAP reviewed by:

From: Jones, Jennifer L </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0F6CA12EAA9348959A4CBB1E829AF244-JENNIFER.JO>
To: Carey, Lauren; Ceric, Olgica; Glover, Mark; Palmer, Lee Anne; Queen, Jackie L; Rotstein, David
CC: Peloquin, Sarah
Sent: 11/13/2018 4:48:41 PM
Subject: RE: 800.267-EON-355590-355703- [B6] -4health Grain-Free Large Breed Formula Adult Dog Food
Attachments: eon-355590-mrx.zip

Deceased.
MRx below. Interview pending.

6 yr MC White Shepherd Dog

Hx: [B6]

[B6]
[B6] at rDVM for coughing, rads were heart dz vs lung dz; 2 wk hx cough w/ some phlegm, tachypnea, dyspnea, poss DCM on flash, presumptive DCM on ER US; UTD vx/flea tick prev; no recent travel; ate 4Health GF Large Breed dog food

[B6]

5/29 PE: mod MCS, mod periodontal dz w/ calc, mod bilat mandib lymphadenopathy, fair-weak femoral pulse, mild inc RR/RE w/ abd component; mm wasting over hind legs/spine, stiff on rising w/ valgus deviation-bilat; Occ VPCS, intermitt S3 gallop

Labs: [B6]

Tau: [B6]

Echo: DCM-LV marked dil, hypocontract, thin wall, mod LA enl, mild-mod R heart enl, hyperechoic spot below aorta in middle of IVS-high VSD or echo drop out; +1 MR, occ VPCs often from LV than RV, one couplet of R on TVPCs, L-CHF;

5/29 Rads: mod L cardiomeg w/ LA enl, venous distension, CHF-L

ECG-single R on T couple w/ intermitt isolated VPCs

5/30: add Tau 1g PO BID, enal

Labs: [B6]

6/12: recheck, on Royal Canin Large Breed and Tau-1 g SID

PE: intermitt gallop

BP: borderline hypotensive [B6]

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Carey, Lauren
Sent: Wednesday, June 06, 2018 8:48 AM
To: Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>
Subject: FW: 4health Grain-Free Large Breed Formula Adult Dog Food: Lisa Freeman - EON-355703

FYI, this is the PFR created for the Tufts DCM RFR (EON-355590). Not a lot of info as far as dog, etc. If we

collect anything on this one I can update within our databases.

Thanks,
Lauren

From: PFR Event [mailto:pfpreventcreation@fda.hhs.gov]
Sent: Wednesday, June 06, 2018 8:00 AM
To: Cleary, Michael * <Michael.Cleary@fda.hhs.gov>; HQ Pet Food Report Notification <HQPetFoodReportNotification@fda.hhs.gov> [B6]
Subject: 4health Grain-Free Large Breed Formula Adult Dog Food: Lisa Freeman - EON-355703

A PFR Report has been received and PFR Event [EON-355703] has been created in the EON System.

A "PDF" report by name "2049063-report.pdf" is attached to this email notification for your reference.

Below is the summary of the report:

EON Key: EON-355703

ICSR #: 2049063

EON Title: PFR Event created for 4health Grain-Free Large Breed Formula Adult Dog Food; 2049063

AE Date	05/29/2018	Number Fed/Exposed	1
Best By Date		Number Reacted	1
Animal Species	Dog	Outcome to Date	Unknown
Breed	Unknown		
Age			
District Involved	PFR-New England DO		

Product information

Individual Case Safety Report Number: 2049063

Product Group: Pet Food

Product Name: 4health Grain-Free Large Breed Formula Adult Dog Food

Description: possible diet-associated DCM 4health Grain-Free Large Breed Formula Adult Dog Food. Owner was asked to save food. Plasma taurine [B6] (ref range 60-120), WB taurine [B6] (ref range 200-350) DCM diagnosed by echocardiography

Submission Type: Initial

Report Type: Adverse Event (a symptom, reaction or disease associated with the product)

Outcome of reaction/event at the time of last observation: Unknown

Number of Animals Treated With Product: 1

Number of Animals Reacted With Product: 1

Product Name	Lot Number or ID	Best By Date
---------------------	-------------------------	---------------------

4health Grain-Free Large Breed Formula Adult Dog Food		
---	--	--

Sender information

Lisa Freeman
200 Westboro Road
North Grafton, MA 01536
USA

Owner information

B6

USA

To view this PFR Event, please click the link below:

<https://eon.fda.gov/eon//browse/EON-355703>

To view the PFR Event Report, please click the link below:

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jspx?decorator=none&e=0&issueType=12&issueId=372224>

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Lab Work
for B6

Date/Time	Patient	Description	Type	Results	it/Meas	her Res	High	Low	Notes	sterinari	technicia	hospi	essor	file N	ase I	ag Num
Accession ID	B6															
5/28/2		OSMOLA	Chemi				315.	291.			Techn				2006	
5/28/2		AMYLAS	Chemi				1250	409.			Techn				2006	
5/28/2		TRIGLYC	Chemi				338.	30.0			Techn				2006	
5/28/2		CHOLES	Chemi				355.	82.0			Techn				2006	
5/28/2		CK	Chemi				422.	22.0			Techn				2006	
5/28/2		AST	Chemi				54.0	9.00			Techn				2006	
5/28/2		ALT	Chemi				86.0	14.0			Techn				2006	
5/28/2		GGT	Chemi				10.0	0.00			Techn				2006	
5/28/2		ALK PHO	Chemi				127.	12.0			Techn				2006	
5/28/2		I BILIRU	Chemi				0.20	0.00			Techn				2006	
5/28/2		D.BILIRU	Chemi				0.10	0.00			Techn				2006	
5/28/2		T BILIRU	Chemi				0.30	0.10			Techn				2006	
5/28/2		NA/K	Chemi				40.0	29.0			Techn				2006	
5/28/2		AGAP	Chemi				19.0	8.00			Techn				2006	
5/28/2		tCO2 (BI	Chemi				28.0	14.0			Techn				2006	
5/28/2		POTASSI	Chemi				5.40	3.70			Techn				2006	
5/28/2		RETICS (	CBC				113.	14.7			Techn				2006	
5/28/2		RETIC(A	CBC				1.60	0.20			Techn				2006	
5/28/2		CHLORI	Chemi				116.	106.			Techn				2006	
5/28/2	B6	PLTCRT	CBC				0.40	0.12		B6	Techn			B6	2006	
5/28/2		SODIUM	Chemi				150.	140.			Techn				2006	
5/28/2		POIKILO	CBC				0.00	0.00			Techn				2006	
5/28/2		MPV (AD	CBC				13.2	8.29			Techn				2006	
5/28/2		A/G RAT	Chemi				1.60	0.70			Techn				2006	
5/28/2		WBC MO	CBC				0.00	0.00			Techn				2006	
5/28/2		EOS (AB	CBC				1.40	0.00			Techn				2006	
5/28/2		GLOBULI	Chemi				4.20	2.30			Techn				2006	
5/28/2		PLT(ADV	CBC				486.	173.			Techn				2006	
5/28/2		RDW (A	CBC				15.2	11.9			Techn				2006	
5/28/2		MONOS	CBC				1.50	0.10			Techn				2006	
5/28/2		ALBUMI	Chemi				4.00	2.80			Techn				2006	
5/28/2		T. PROT	Chemi				7.80	5.50			Techn				2006	
5/28/2		MCHC(A	CBC				34.3	31.9			Techn				2006	
5/28/2		LYMPHS	CBC				4.80	1.00			Techn				2006	
5/28/2		SEGS (A	CBC				11.5	2.80			Techn				2006	
5/28/2		MCH(AD	CBC				25.9	21.3			Techn				2006	
5/28/2		MAGNES	Chemi				3.00	1.80			Techn				2006	
5/28/2		NRBC	CBC				1.00	0.00			Techn				2006	
5/28/2		MCV(AD	CBC				77.5	64.5			Techn				2006	

Lab Work
for **B6**

Date/Time	Patient	Description	Type	Results	Unit/Meas	Ref Res	High	Low	Notes	sterinari	technician	hospital	accession file	base	Tag	Numb
5/28/2		CALCIU					11.3	9.40			Techn					2006
5/28/2		EOS%					16.0	0.00			Techn					2006
5/28/2		HCT(AD					55.0	39.0			Techn					2006
5/28/2		PHOSPH					7.20	2.60			Techn					2006
5/28/2		CREATIN					2.00	0.60			Techn					2006
5/28/2		HGB(AD					20.5	13.3			Techn					2006
5/28/2	B6	MONOS	B6				15.0	1.00		B6			B6			2006
5/28/2		RBC(ADV					8.50	5.80			Techn					2006
5/28/2		UREA					30.0	8.00			Techn					2006
5/28/2		LYMPHS					47.0	7.00			Techn					2006
5/28/2		GLUCOS					135.	67.0			Techn					2006
5/28/2		SEGS%					86.0	43.0			Techn					2006
5/28/2		WBC (AD					15.1	4.40			Techn					2006

Accession ID: **B6**

5/28/2		FIO2					0.00	0.00			Techn					
5/28/2		NOVA SA					0.00	0.00			Techn					
5/28/2		A					0.00	0.00			Techn					
5/28/2		HCO3					24.0	18.0			Techn					
5/28/2		BEb					0.00	0.00			Techn					
5/28/2		BEecf					0.00	0.00			Techn					
5/28/2		CA/MG					0.00	0.00			Techn					
5/28/2		GAP					0.00	0.00			Techn					
5/28/2		nMG					0.00	0.00			Techn					
5/28/2		nCA					0.00	0.00			Techn					
5/28/2		TCO2 (P					0.00	0.00			Techn					
5/28/2	B6	CREAT (	B6				2.10	0.20		B6			B6			
5/28/2		BUN (PO					28.0	12.0			Techn					
5/28/2		LACTATE					2.00	0.00			Techn					
5/28/2		GLUCOS					120.	80.0			Techn					
5/28/2		MG (POC					0.40	0.10			Techn					
5/28/2		CA (ioniz					1.38	1.17			Techn					
5/28/2		CL(POC)					120.	109.			Techn					
5/28/2		K (POC)					4.80	3.60			Techn					
5/28/2		NA (POC					154.	140.			Techn					
5/28/2		HB (POC					16.0	12.6			Techn					
5/28/2		HCT (PO					48.0	38.0			Techn					
5/28/2		SO2%					100.	94.0			Techn					
5/28/2		PO2					100.	80.0			Techn					
5/28/2		PCO2					44.0	36.0			Techn					

Lab Work
for **B6**

Date/Time	Patient	Description	Type	Results	it/Meas	her Res	High	Low	Notes	sterinari	technicia	hospi	essor	file No	ase Iag	Numb
5/28/2	B6	PH	IRMA	B6			7.46	7.33		B6	Techn		B6	2006		

Accession ID: **B6**

5/28/2	B6	PCV **	PCV/T	B6			0.00	0.00		B6	Techn		B6			
5/28/2		TS (FHS)	PCV/T				0.00	0.00			Techn					

Accession ID: **B6**

5/29/2	B6	Chemi		B6			350.	200.					B6			
5/29/2		Chemi					120.	60.0								

Accession ID: **B6**

5/29/2	B6	FIO2	NOVA				0.00	0.00								
5/29/2		NOVA SA	NOVA				0.00	0.00								
5/29/2		A	NOVA				0.00	0.00								
5/29/2		HCO3	IRMA				24.0	18.0								
5/29/2		BEb	NOVA				0.00	0.00								
5/29/2		BEecf	NOVA				0.00	0.00								
5/29/2		CA/MG	NOVA				0.00	0.00								
5/29/2		GAP	NOVA				0.00	0.00								
5/29/2		nMG	NOVA				0.00	0.00								
5/29/2		nCA	NOVA				0.00	0.00								
5/29/2		TCO2 (P	NOVA				0.00	0.00								
5/29/2		CREAT (	NOVA				2.10	0.20								
5/29/2	B6	BUN (PO	NOVA	B6			28.0	12.0					B6			
5/29/2		LACTATE	NOVA				2.00	0.00								
5/29/2		GLUCOS	NOVA				120.	80.0								
5/29/2		MG (POC	NOVA				0.40	0.10								
5/29/2		CA (ioniz	NOVA				1.38	1.17								
5/29/2		CL(POC)	NOVA				120.	109.								
5/29/2		K (POC)	NOVA				4.80	3.60								
5/29/2		NA (POC	NOVA				154.	140.								
5/29/2		HB (POC	NOVA				16.0	12.6								
5/29/2		HCT (PO	NOVA				48.0	38.0								
5/29/2		SO2%	NOVA				100.	94.0								
5/29/2		PO2	nova				100.	80.0								
5/29/2		PCO2	IRMA				44.0	36.0								
5/29/2		PH	IRMA				7.46	7.33								

Accession ID: **B6**

5/29/2	B6	PCV **	PCV/T	B6			0.00	0.00					B6			
5/29/2		TS (FHS)	PCV/T				0.00	0.00								

Date/Time	Patient	Description	Type	Results	it/Meas	her Res	High	Low	Notes	sterinari	technici	hospi	essor	file N	case I	ag Num
-----------	---------	-------------	------	---------	---------	---------	------	-----	-------	-----------	----------	-------	-------	--------	--------	--------

Accession ID: **B6**

5/30/2		FIO2	NOVA				0.00	0.00								
5/30/2		NOVA SA	NOVA				0.00	0.00								
5/30/2		A	NOVA				0.00	0.00								
5/30/2		HCO3	IRMA				24.0	18.0								
5/30/2		BEb	NOVA				0.00	0.00								
5/30/2		BEecf	NOVA				0.00	0.00								
5/30/2		CA/MG	NOVA				0.00	0.00								
5/30/2		GAP	NOVA				0.00	0.00								
5/30/2		nMG	NOVA				0.00	0.00								
5/30/2		nCA	NOVA				0.00	0.00								
5/30/2		TCO2 (P	NOVA				0.00	0.00								
5/30/2		CREAT (	NOVA				2.10	0.20								
5/30/2	B6	BUN (PO	NOVA				28.0	12.0								
5/30/2		LACTATE	NOVA				2.00	0.00								
5/30/2		GLUCOS	NOVA				120.	80.0								
5/30/2		MG (POC	NOVA				0.40	0.10								
5/30/2		CA (ioniz	NOVA				1.38	1.17								
5/30/2		CL(POC)	NOVA				120.	109.								
5/30/2		K (POC)	NOVA				4.80	3.60								
5/30/2		NA (POC	NOVA				154.	140.								
5/30/2		HB (POC	NOVA				16.0	12.6								
5/30/2		HCT (PO	NOVA				48.0	38.0								
5/30/2		SO2%	NOVA				100.	94.0								
5/30/2		PO2	nova				100.	80.0								
5/30/2		PCO2	IRMA				44.0	36.0								
5/30/2		PH	IRMA				7.46	7.33								

Accession ID: **B6**

5/30/2	B6	PCV **	PCV/T				0.00	0.00								
5/30/2		TS (FHS	PCV/T				0.00	0.00								

Accession ID: **B6**

6/12/2		Chemi					0.00	0.00								
6/12/2		Chemi					315.	291.								
6/12/2	B6	Chemi					355.	82.0								
6/12/2		Chemi					54.0	9.00								
6/12/2		Chemi					86.0	14.0								
6/12/2		Chemi					127.	12.0								
6/12/2		Chemi					0.20	0.00								

Date/Time	Patient	Description	Type	Results	Unit/Meas	Ref Res	High	Low	Notes	Technician	Hospital	Accession File No	Case Id	Tag Num	
6/12/2	B6	D.BILIRU	Chemi	B6			0.10	0.00		Techn	B6				
6/12/2		T BILIRU	Chemi					0.30	0.10			Techn			
6/12/2		NA/K	Chemi					40.0	29.0			Techn			
6/12/2		POTASSI	Chemi					5.40	3.70			Techn			
6/12/2		CHLORI	Chemi					116.	106.			Techn			
6/12/2		SODIUM	Chemi					150.	140.			Techn			
6/12/2		A/G RAT	Chemi					1.60	0.70			Techn			
6/12/2		GLOBULI	Chemi					4.20	2.30			Techn			
6/12/2		ALBUMI	Chemi					4.00	2.80			Techn			
6/12/2		T. PROT	Chemi					7.80	5.50			Techn			
6/12/2		CALCIU	Chemi					11.3	9.40			Techn			
6/12/2		PHOSPH	Chemi					7.20	2.60			Techn			
6/12/2		CREATIN	Chemi					2.00	0.60			Techn			
6/12/2		UREA	Chemi					30.0	8.00			Techn			
6/12/2		GLUCOS	Chemi					135.	67.0			Techn			

Sample Profile

Patient ID: B6
 Patient Name:
 Analyzed: 05/29/2018 06:39:12 PM
 Analyzer ID: B6
 Sample Type: Venous
 Panel: Critical Care
 Operator: B6
 Releaser: auto

B6

Required Fields

Optional Fields

Measured

Test	Value	Units	Reference Range	Flags
pH			-	
pCO2		mmHg	-	
pO2		mmHg	-	
SO2%			-	
Hct		%	-	
Hb		g/dL	-	
Na+		mmol/L	-	
K+		mmol/L	-	
Cl-		mmol/L	-	
Ca++		mmol/L	-	
Mg++		mmol/L	-	
Glu		mg/dL	-	
Lac		mmol/L	-	
BUN		mg/dL	-	
Creat		mg/dL	-	
TCO2		mmol/L	-	

Calculated

Test	Value	Units	Reference Range	Flags
nCa		mmol/L	-	
nMg		mmol/L	-	
Gap		mmol/L	-	
Ca++/Mg++		mol/mol	-	
BUN/Creat		mg/mg	-	
BE-ecf		mmol/L	-	
BE-b		mmol/L	-	
SBC		mmol/L	-	
HCO3-		mmol/L	-	
P50		mmHg	-	
O2Cap		mL/dL	-	
O2Ct		mL/dL	-	
A		mmHg	-	
Osm		mOsm/kg	-	

B6

B6

Soap Text Created By: [B6] Updated on: [B6] 7:09:58 PM By: [B6]

Subjective

NEW VISIT (ER)

Doctor: [B6]

Student: [B6]

Presenting complaint: respiratory distress

Referral visit? yes (referred from [B6] for coughing workup - was going to make appointment)

Diagnostics completed prior to visit: at [B6] radiographs were heart disease vs. lung disease

HISTORY:

Signalment: 6yo MN Caucasian Shepherd Dog

Current history: Owners noticed increased respiratory rate (60/min) and short, shallow breaths this afternoon. Patient was in a cool house and resting at the time. He has been coughing for the past 2 weeks, with sometimes coughing up phlegm. The owner reports that he has a few of these coughing episodes a day. [B6] coughs a few times and then hacks once, then he recovers smoothly. He has a history of heart disease found at a veterinarian in [B6] in 2012 or 2013, where they noticed a "hole in his heart", the owner is unsure about what specific condition he has but says the vet told him that some of the blood in his heart goes backward and not forward.

Prior medical history: [B6]

Current medications: none

Vaccination status/flea & tick preventative use: UTD

Travel history: none recently

EXAM:

S: BAR, very friendly

B6

C/V: No obvious murmur, but difficult to auscult due to patient size/coat and panting. NSA, FPSS.

B6

ASSESSMENT:

A1: Increased respiratory effort: r/o cardiac disease (DCM (suspected) vs. structural defect vs CHF) vs. lung

disease (pneumonia vs. bronchitis vs. allergy)

PLAN:

P1:
P2:
P3:
P4:
P5:
P6:
P7:

B6

Diagnostics completed:

AFAST: No evidence of free fluid.

TFAST: Decreased LV contractility. La:Ao WNL. No pleural or pericardial effusion.

Diagnostics pending:

CBC, chemistry

Client communication: Confirmed history and discussed initial diagnostic plan with owner. Discussed findings of TFAST with owner, and briefly discussed DCM. Recommended repeating CXR, owner would like to hold if possible to help conserve finances. I advised the owner that we would treat **B6** supportively overnight and get full cardiology evaluation tomorrow who would make additional treatment and diagnostic recommendations. Owner is happy with estimate. Advised owner that the new doctor will call tomorrow morning between 10-noon with update and plan for the day.

Deposit & estimate status: **B6**

Resuscitation code (if admitting to ICU) **B6**

SOAP approved (DVM to sign) **B6**

B6

Subjective

Exam, cardiology

B6

Hydration: euhydrated

Overall impression since arrival or since last exam: Cardiovascularly stable overnight with progressively decreased HR other than with stimulation. Respiratory rate progressively decreased with continued mild effort. **B6** given at 10pm and 2am. Panting this morning, may be related to temperature in ICU.

Appetite: Ate chicken well overnight. Ate remaining Proplan in bowl this morning when hand fed.

Diet Hx: Fed 4Health Grain Free Large Breed Dog food

(O)

B6

Heart: Difficult to auscult due to heavy haircoat. Normal sinus rhythm, femoral pulses fair- weak bilaterally.

B6

Assessments

A1: Increased respiratory rate/effort: r/o cardiac disease (suspect DCM vs. congenital defect vs. CHF) vs pulmonary disease (aspiration pneumonia vs. infectoius pneumonia vs. bronchitis)

A2: Occasional VPCs: 2* to DCM vs other myocardial disease

Plan

P1:
P2:
P3:
P4:
P5:

B6

Diagnostics:

NOVA: Lac **B6**

PCV/TS **B6**

CBC: WNL

Chem: ALP: **B6**

CXR: Moderate left-sided cardiomegaly w LA enlargement, venous distension and cardiogenic pulmonary edema consistent with left-sided heart failure.

Telemetry O/N: Single incidence of R on T couplet with intermittent isolated VPCs

SOAP completed by: **B6**

SOAP reviewed by: **B6**

B6

Subjective

Exam, cardiology

(S) T: 101.4

HR: 144

RR: panting

Mentation: BAR

Hydration: euhydrated

Overall impression since arrival or since last exam: Cardiovascularly stable overnight. Heart rate varied overnight from 80-100 when quiet or resting to 130-170 when worked up and barking. Respiratory rate difficult to ascertain overnight as the patient was often panting, whining or barking. Respiratory effort and rate remained at or below 40 the few times it was able to be determined. The patient 120mg of **B6** 4 times since the previous SOAP (10:30am, 1:30pm, 7:20pm, 4:00 am).

Appetite: Ate well overnight whenever food was offered. Telemetry showed intermittent single intercalated ventricular beats.

Diet Hx: Fed 4Health Grain Free Large Breed Dog food

(O)

BCS(1-9) **B6**

B6

Heart: Difficult to auscult due to size and heavy haircoat. Normal sinus rhythm, femoral pulses fair bilaterally.

B6

Assessments

A1: Increased respiratory rate/effort: DCM + CHF

A2: Occasional VPCs: 2* to DCM

B6

Plan

P1: **B6**
P2:
P3:
P4:

P5:
P6:
P7:

B6

Diagnostics:

B6

NOVA:

B6

PCV/TS:

B6

CBC: WNL

Chem: ALP

B6

B6

CXR: Moderate left-sided cardiomegaly w LA enlargement, venous distension and cardiogenic pulmonary edema consistent with left-sided heart failure.

NOVA: Lac=**B6**, BUN=**B6**, Creat=**B6**

PCV/TS:

B6

B6

NOVA: Lac (**B6**), BUN=**B6**, Creat=**B6**, **B6**

PCV/TS:

B6

SOAP completed by:

B6

SOAP reviewed by:

Soap Text Created By - Veterinarian: [B6] - Updated on: 6/12/2018 12:05:03 PM By: [B6]

Sample Submission Form

Amino Acid Laboratory
 University of California, Davis
 1020 Vet Med 3B
 1089 Veterinary Medicine Drive
 Davis, CA 95616
 Tel: (530)752-5058, Fax: (530)752-4698

UC CUSTOMERS ONLY:
 Non-federal funds ID/Account Number
 to bill: _____

<http://www.vetmed.ucdavis.edu/vmb/aal/aal.html>

Vet/Tech Contact: B6
 Company Name: Tufts Cummings School of Vet Med - Clinical Pathology Laboratory
 Address: 200 Westboro Road
North Grafton, MA 01536

Email: clinpath@tufts.edu;
 Tel: 508-887-4669 Fax: 508-839-7936

Billing Contact: B6 TAX ID: _____
 Email: B6 Tel: B6

Patient Name: B6
 Species: canine
 Owner's Name: B6

Sample Type: Plasma Whole Blood Urine Food Other: _____
 Test Items: Taurine Complete Amino Acid Other: _____

Taurine Results (nmol/ml)
 Plasma: B6 Whole Blood: B6 Urine: _____ Food: _____

Reference Ranges (nmol/ml)

	Plasma		Whole Blood	
	Normal Range	No Known Risk for Taurine Deficiency	Normal Range	No Known Risk for Taurine Deficiency
Cat	80-120	>40	300-600	>200
Dog	60-120	>40	200-350	>150

B6

From: Jones, Jennifer L </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0F6CA12EAA9348959A4CBB1E829AF244-JENNIFER.JO>
To: [REDACTED] B6
CC: Peloquin, Sarah
Sent: 9/4/2018 2:46:16 PM
Subject: RE: 800.267-FDA Case investigation for [REDACTED] B6 (EON-360887)

Hi [REDACTED] B6

My apologies for missing your call on Friday. I'm fine with you performing the necropsy in house. Please let me know after you've completed the necropsy, and I can send you the boxes to collect the tissues. Thank you,
Jen

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: [REDACTED] B6
Sent: Friday, [REDACTED] B6 11:39 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: Re: 800.267-FDA Case investigation for [REDACTED] B6 (EON-360887)

Hi Jennifer,

I left a voice message earlier stating that I can preform [REDACTED] B6 necropsy, but I didn't know if you would prefer I brought her to [REDACTED] B6 to have a pathologist conduct it. I would be able to bring her there tomorrow. Please let me know if you have preference over who performs the necropsy. Thanks for all your help.

[REDACTED] B6

On [REDACTED] B6 at 6:42 AM, Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov> wrote:

Good morning [REDACTED] B6

I received a call from [REDACTED] B6 that [REDACTED] B6 passed away [REDACTED] B6 I'm sorry to hear that she died. Thank you for calling us to ask about a necropsy.

You do not need to submit a new pet food report, but we would like to request a necropsy.

For the necropsy, please collect the heart, intact, and place directly in formalin. The Rapid Necropsy document provides additional instructions about what samples to take and how to store them.

After you complete the necropsy, we will send you two boxes to collect the samples (1 for fixed tissue, 1 for frozen tissue). The boxes will have prepaid shipping labels, and I'll need to know *the final weight of each sample set (e.g. weight of all fixed tissue, weight of all frozen tissue)*.

After you receive the boxes, you'll **reuse** the box, package the tissues according to the instructions, affix the prepaid label to the box, and call UPS for the pick-up. Please return ship the samples to us on a Monday-Wednesday only. Please do not ship next Monday (Labor Day).

After you complete the necropsy, send me a copy of the invoice, and we'll call back with our VISA information to reimburse the hospital directly.

Thank you again for letting us know and offering to perform the necropsy,

Take care,
Jen

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421
<image002.png> <image004.png>

From: [REDACTED] B6
Sent: Thursday, August 02, 2018 3:31 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: Re: 800.267-FDA Case investigation for [REDACTED] B6 (EON-360887)

It should be ok to contact the owner. I usually contact the owner on the home phone [REDACTED] B6

Thanks,

[REDACTED] B6

On Aug 2, 2018, at 10:39 AM, Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov> wrote:

Thank you, [REDACTED] B6 Is it ok to contact the owner for a dietary and environmental exposure interview and to also collect the food?

Thank you,
Jen

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421
<image001.png> <image002.png>

From: [REDACTED] B6
Sent: Thursday, August 02, 2018 9:22 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: Re: 800.267-FDA Case investigation for [REDACTED] B6 (EON-360887)

Good Morning Jennifer,
I have attached all my diagnostics including radiographs and labwork. I will fax over my written physical exam with current treatments. [REDACTED] B6 is stable and has an appointment with a cardiologist [REDACTED] B6 Thanks for all your help with [REDACTED] B6

Thanks,

[REDACTED] B6

On Wed, Aug 1, 2018 at 7:53 AM, Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov> wrote:

Good morning [REDACTED] B6

Thank you for submitting your consumer complaint to FDA. I'm sorry to hear about [REDACTED] B6 illness. As part of our investigation, we'd like to request:

- **Full Medical Records**

- Please contact *your veterinarian (primary veterinarian and cardiologist/specialist)* and ask them to email (preferred) or fax (301-210-4685) a copy of [REDACTED] B6 entire medical history (not just this event).

- **After we review the records, we may request a Phone interview** about [REDACTED] B6 diet and environmental exposures

- The interview will help us better understand the details in your case.

I attached a copy of our Vet-LIRN network procedures. The procedures describe how Vet-LIRN operates and how owners help with our case investigations.

Please respond to this email so that we can initiate our investigation.

Thank you kindly,
Dr. Jones

Jennifer L. A. Jones, DVM

Veterinary Medical Officer
U.S. Food & Drug Administration
Center for Veterinary Medicine
Office of Research
Veterinary Laboratory Investigation and Response Network (Vet-LIRN)
8401 Muirkirk Road, G704
Laurel, Maryland 20708
new tel: 240-402-5421
fax: 301-210-4685
e-mail: jennifer.jones@fda.hhs.gov
Web: <http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>

<image001.png> <image003.png>

<02-Vet-LIRN-NetworkProceduresVets-12.22.2015.pdf>
<800.267-Vet-LIRN Rapid Necropsy-DCM-v7.pdf>

From: Jones, Jennifer L </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0F6CA12EAA9348959A4CBB1E829AF244-JENNIFER.JO>
To: Rotstein, David; Palmer, Lee Anne; Carey, Lauren; Burkholder, William
CC: Peloquin, Sarah; Ceric, Olgica; Reimschuessel, Renate
Sent: 7/23/2019 12:42:45 PM
Subject: RE: FYI-Great article that helps us
Attachments: Cavanaugh et al-2019-AA Echos Plants-ACVIM.pdf

To make sure I shared this:

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Rotstein, David
Sent: Tuesday, July 23, 2019 8:38 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Burkholder, William <William.Burkholder@fda.hhs.gov>
Cc: Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>; Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Subject: Re: FYI-Great article that helps us

Very interesting.

I wonder:

B5

From: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Date: July 23, 2019 at 8:22:20 AM EDT
To: Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>, Carey, Lauren <Lauren.Carey@fda.hhs.gov>, Rotstein, David <David.Rotstein@fda.hhs.gov>, Burkholder, William <William.Burkholder@fda.hhs.gov>
Cc: Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>, Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>, Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Subject: FYI-Great article that helps us

Offers multiple solid dietary explanations using rat/human models for understanding why Tau/Cys/Met deficiency might be caused by diets high in legumes. **B5**

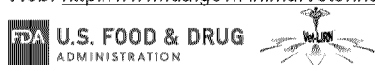
Highlights:

- humans (estimated using a rat model): “low protein digestibility and amino acid bioavailability of grain legumes or pulses is well documented.”
- “Presence of residual antiphysiological factors in cooked beans, peas, and lentils may stimulate excretion of endogenous proteins resulting in a low digestibility of protein and amino acids.”
- (p 970 to 971 on trypsin inhibitors): “Inhibitors of enzymes, such as trypsin, chymotrypsin... appear in many food products, including legumes, cereals, potatoes, and tomatoes.”
- Trypsin Inhibitors:
 - P 973: “Protein and/or amino acid digestibility have/has been reported to be negatively affected in animal models by the presence of high levels of dietary trypsin inhibitors and other antinutritional factors from soybean, kidney bean, and other grain legumes such as peas, lentil, black bean...”
 - P. 973-True fecal digestibility Table 7 in autoclaved samples: Lentils have 41% methionine and 40% cystine digestibility (rat balance method), pea protein concentrate at 73% and 87% respectively, pea flour 77% and 84%.

- P974: "In legume diets, the true digestibility values of methionine (51%-82%), cystine (46%-85%) were considerably lower than the true digestibility values of protein (72%-90%). Protein digestibility may not be a good predictor for the bioavailability of dietary limiting amino acids in grain legumes."
- Tannins—"p 975-Presence of dietary tannins in cereals such as sorghum, and grain legumes, such as field beans and fababeans, has been reported to reduce protein and amino acid digestibilities in various animal models. Negative correlation between in vitro protein digestibility and dietary tannin content."
 - Table 10 p 976: high tannin fababean hulls had either 2% or 20% ileal digestibility of cystine in pigs!
 - Lysine, methionine + cystine and threonine digestibilities were significantly lower in high tanning vs low tannin varieties. (pigs and chickens)
- Phytates/Racemic change to D amino acids

Jennifer L. A. Jones, DVM

Veterinary Medical Officer
U.S. Food & Drug Administration
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new tel: 240-402-5421
fax: 301-210-4685
e-mail: jennifer.jones@fda.hhs.gov
Web: <http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>



From: Peloquin, Sarah </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8607F880DF2B494AA639E6D9A3874132-SARAH.PELOQ>
To: Jones, Jennifer L
Sent: 6/14/2019 12:37:01 PM
Subject: RE: link to VL DCM update for June 2019

B5

Sarah Peloquin, DVM
Veterinary Medical Officer
tel: 240-402-1218

From: Peloquin, Sarah
Sent: Friday, June 14, 2019 8:31 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: RE: link to VL DCM update for June 2019

I know someone will probably catch this, but the last sentence in this paragraph (under "Course of disease") has a grammatical error.

B5

Sarah Peloquin, DVM
Veterinary Medical Officer
tel: 240-402-1218

From: Jones, Jennifer L
Sent: Thursday, June 13, 2019 10:55 AM
To: Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>; Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Subject: link to VL DCM update for June 2019

F:\6-CASES\800.267-EON-Multi-DCM-Cluster\1-Mtgs-Strategy\2-CVM Communications\1-CVM Web Updates\03-June 2019

Jennifer L. A. Jones, DVM
Veterinary Medical Officer
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Veterinary Laboratory Investigation and Response Network (Vet-LIRN)
8401 Muirkirk Road, G704
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fax: 301-210-4685
e-mail: jennifer.jones@fda.hhs.gov
Web: <http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>



From: Peloquin, Sarah </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8607F880DF2B494AA639E6D9A3874132-SARAH.PELOQ>
To: Jones, Jennifer L
Sent: 6/14/2019 12:30:49 PM
Subject: RE: link to VL DCM update for June 2019

I know someone will probably catch this, but the last sentence in this paragraph (under "Course of disease") has a grammatical error.

B5

Sarah Peloquin, DVM
Veterinary Medical Officer
tel: 240-402-1218

From: Jones, Jennifer L
Sent: Thursday, June 13, 2019 10:55 AM
To: Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>; Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Subject: link to VL DCM update for June 2019

<F:\6-CASES\800.267-EON-Multi-DCM-Cluster\1-Mtgs-Strategy\2-CVM Communications\1-CVM Web Updates\03-June 2019>

Jennifer L. A. Jones, DVM
Veterinary Medical Officer
U.S. Food & Drug Administration
Center for Veterinary Medicine
Office of Research
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8401 Muirkirk Road, G704
Laurel, Maryland 20708
new tel: 240-402-5421
fax: 301-210-4685
e-mail: jennifer.jones@fda.hhs.gov
Web: <http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>



From: Rotstein, David </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0A3B17EBFCF14A6CB8E94F322906BADD-DROTSTEI>
To: Norris, Anne; Hartogensis, Martine; Carey, Lauren; Jones, Jennifer L; Burkholder, William; Reimschuessel, Renate
CC: DeLancey, Siobhan
Sent: 8/13/2018 7:02:14 PM
Subject: RE: Food Safety News Query: DCM follow-up

That will work!

David Rotstein, DVM, MPVM, Dipl. ACVP
CVM Vet-LIRN Liaison
CVM OSC/DC/CERT
7519 Standish Place
240-506-6763 (BB)



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From: Norris, Anne
Sent: Monday, August 13, 2018 3:01 PM
To: Hartogensis, Martine <Martine.Hartogensis@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Burkholder, William <William.Burkholder@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>
Cc: DeLancey, Siobhan <Siobhan.Delancey@fda.hhs.gov>
Subject: RE: Food Safety News Query: DCM follow-up

Went with a less is more approach. Please advise if you see anything you'd recommend changing.

Thanks,
Anne

1. Approximately how many additional reports of possible canine (or feline) DCM has FDA received since the initial investigation notice of July 12, 2018

B5

B5

From: Palmer, Lee Anne
Sent: Monday, August 13, 2018 10:55 AM
To: Hartogensis, Martine <Martine.Hartogensis@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Norris, Anne <Anne.Norris@fda.hhs.gov>; Burkholder, William <William.Burkholder@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>
Cc: DeLancey, Siobhan <Siobhan.Delancey@fda.hhs.gov>
Subject: RE: Food Safety News Query: DCM follow-up

Hi -- just a few additional comments.

From: Hartogensis, Martine
Sent: Monday, August 13, 2018 10:51 AM
To: Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Norris, Anne <Anne.Norris@fda.hhs.gov>; Burkholder, William <William.Burkholder@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>
Cc: DeLancey, Siobhan <Siobhan.Delancey@fda.hhs.gov>
Subject: RE: Food Safety News Query: DCM follow-up

Added to #3.

From: Carey, Lauren
Sent: Monday, August 13, 2018 10:28 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Norris, Anne <Anne.Norris@fda.hhs.gov>; Hartogensis, Martine <Martine.Hartogensis@fda.hhs.gov>; Burkholder, William <William.Burkholder@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>
Cc: DeLancey, Siobhan <Siobhan.Delancey@fda.hhs.gov>
Subject: RE: Food Safety News Query: DCM follow-up

My comments below.

From: Jones, Jennifer L
Sent: Monday, August 13, 2018 9:45 AM
To: Norris, Anne <Anne.Norris@fda.hhs.gov>; Hartogensis, Martine <Martine.Hartogensis@fda.hhs.gov>; Burkholder, William <William.Burkholder@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>
Cc: DeLancey, Siobhan <Siobhan.Delancey@fda.hhs.gov>
Subject: RE: Food Safety News Query: DCM follow-up

My comments below.

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Norris, Anne

Sent: Monday, August 13, 2018 9:34 AM

To: Hartogenesis, Martine <Martine.Hartogenesis@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Burkholder, William <William.Burkholder@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>

Cc: DeLancey, Siobhan <Siobhan.Delancey@fda.hhs.gov>

Subject: Food Safety News Query: DCM follow-up

Good morning!

B5

B5

Thanks,
Anne

Anne Norris
Strategic Initiatives

Office of the Director
Center for Veterinary Medicine
U.S. Food & Drug Administration
O: 240-402-0132
M: 240-704-0579
Anne.Norris@fda.hhs.gov



From: Jones, Jennifer L </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0f6ca12eaa9348959a4cbb1e829af244-Jennifer.Jo>
To: Carey, Lauren; Rotstein, David; Norris, Anne; Hartogensis, Martine; Burkholder, William; Reimschuessel, Renate
CC: DeLancey, Siobhan
Sent: 8/13/2018 7:09:06 PM
Subject: RE: Food Safety News Query: DCM follow-up

Excellent

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Carey, Lauren
Sent: Monday, August 13, 2018 3:04 PM
To: Rotstein, David <David.Rotstein@fda.hhs.gov>; Norris, Anne <Anne.Norris@fda.hhs.gov>; Hartogensis, Martine <Martine.Hartogensis@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Burkholder, William <William.Burkholder@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Cc: DeLancey, Siobhan <Siobhan.Delancey@fda.hhs.gov>
Subject: RE: Food Safety News Query: DCM follow-up

I think that's very good, Anne. I support your approach. J

From: Rotstein, David
Sent: Monday, August 13, 2018 3:02 PM
To: Norris, Anne <Anne.Norris@fda.hhs.gov>; Hartogensis, Martine <Martine.Hartogensis@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Burkholder, William <William.Burkholder@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Cc: DeLancey, Siobhan <Siobhan.Delancey@fda.hhs.gov>
Subject: RE: Food Safety News Query: DCM follow-up

That will work!

David Rotstein, DVM, MPVM, Dipl. ACVP
CVM Vet-LIRN Liaison
CVM OSC/DC/CERT
7519 Standish Place
240-506-6763 (BB)



This e-mail message is intended for the exclusive use of the recipient(s) named above. It may contain information that is protected, privileged, or confidential, and it should not be disseminated, distributed, or copied to persons not authorized to receive such information. If you are not the intended recipient, any dissemination, distribution, or copying is strictly prohibited. If you think you received this e-mail message in error, please e-mail the sender immediately at david.rotstein@fda.hhs.gov.

From: Norris, Anne

Sent: Monday, August 13, 2018 3:01 PM

To: Hartogensis, Martine <Martine.Hartogensis@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Burkholder, William <William.Burkholder@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>

Cc: DeLancey, Siobhan <Siobhan.Delancey@fda.hhs.gov>

Subject: RE: Food Safety News Query: DCM follow-up

Went with a less is more approach. Please advise if you see anything you'd recommend changing.

Thanks,
Anne

1. Approximately how many additional reports of possible canine (or feline) DCM has FDA received since the initial investigation notice of July 12, 2018

B5

From: Palmer, Lee Anne

Sent: Monday, August 13, 2018 10:55 AM

To: Hartogensis, Martine <Martine.Hartogensis@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Norris, Anne <Anne.Norris@fda.hhs.gov>; Burkholder, William <William.Burkholder@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>

Cc: DeLancey, Siobhan <Siobhan.Delancey@fda.hhs.gov>

Subject: RE: Food Safety News Query: DCM follow-up

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Cc: DeLancey, Siobhan <Siobhan.Delancey@fda.hhs.gov>

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Cc: DeLancey, Siobhan <Siobhan.Delancey@fda.hhs.gov>

Subject: RE: Food Safety News Query: DCM follow-up

My comments below.

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Norris, Anne

Sent: Monday, August 13, 2018 9:34 AM

To: Hartogensis, Martine <Martine.Hartogensis@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Burkholder, William <William.Burkholder@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>

Cc: DeLancey, Siobhan <Siobhan.Delancey@fda.hhs.gov>

Subject: Food Safety News Query: DCM follow-up

Good morning!

B5

B5

Thanks,
Anne

Anne Norris
Strategic Initiatives

Office of the Director
Center for Veterinary Medicine
U.S. Food & Drug Administration
O: 240-402-0132
M: 240-704-0579
Anne.Norris@fda.hhs.gov



From: Norris, Anne </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=891982B43D804C9396555BAF36C73DE1-ANNE.NORRIS>
To: Jones, Jennifer L; DeLancey, Siobhan; Hartogensis, Martine; Burkholder, William; Rotstein, David; Palmer, Lee Anne; Carey, Lauren; Peloquin, Sarah
CC: Ceric, Olgica; Reimschuessel, Renate
Sent: 12/7/2018 1:13:58 PM
Subject: RE: FYI-DCM Article-FW: article

Thanks!

From: Jones, Jennifer L
Sent: Friday, December 7, 2018 8:07 AM
To: Norris, Anne <Anne.Norris@fda.hhs.gov>; DeLancey, Siobhan <Siobhan.Delancey@fda.hhs.gov>; Hartogensis, Martine <Martine.Hartogensis@fda.hhs.gov>; Burkholder, William <William.Burkholder@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Cc: Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Subject: FYI-DCM Article-FW: article

From Dr. Adin.

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: ADIN, DARCY BRITTAIN <adind@ufl.edu>
Sent: Friday, December 07, 2018 7:49 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: article

Hi Jen,

Just thought I'd share out diet DCM paper from NCSU with you. It is available for sharing but won't be in the journal til 2019.

It was great to talk this week and hear all the progress you've made!

Take care
Darcy

Darcy B. Adin, DVM, Diplomate ACVIM (Cardiology)
Clinical Associate Professor, Cardiology
University of Florida
College of Veterinary Medicine
PO Box 100136
2015 SW 16th Ave
Gainesville, FL 32608
(352) 294-8606

From: Peloquin, Sarah </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8607F880DF2B494AA639E6D9A3874132-SARAH.PELOQ>
To: Jones, Jennifer L
Sent: 12/7/2018 1:12:38 PM
Subject: RE: FYI-DCM Article-FW: article

B5

Sarah Peloquin, DVM
Veterinary Medical Officer
tel: 240-402-1218

From: Jones, Jennifer L
Sent: Friday, December 7, 2018 8:07 AM
To: Norris, Anne <Anne.Norris@fda.hhs.gov>; DeLancey, Siobhan <Siobhan.Delancey@fda.hhs.gov>; Hartogensis, Martine <Martine.Hartogensis@fda.hhs.gov>; Burkholder, William <William.Burkholder@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Cc: Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Subject: FYI-DCM Article-FW: article

From Dr. Adin.

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: ADIN,DARCY BRITTAIN <adind@ufl.edu>
Sent: Friday, December 07, 2018 7:49 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: article

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Take care
Darcy

Darcy B. Adin, DVM, Diplomate ACVIM (Cardiology)
Clinical Associate Professor, Cardiology
University of Florida
College of Veterinary Medicine
PO Box 100136
2015 SW 16th Ave

Gainesville, FL 32608
(352) 294-8606

From: Jones, Jennifer L </O=FDA/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=JENNIFER.JONESAA8>
To: B6
CC: Ceric, Olgica
Sent: 8/3/2017 4:47:50 PM
Subject: RE: head's up: FDA samples shipping today: taurine, carnitine

Received. Thank you.

Jennifer Jones, DVM
Veterinary Medical Officer



From: B6
Sent: Thursday, August 03, 2017 11:58 AM
To: Jones, Jennifer L
Cc: Ceric, Olgica
Subject: RE: head's up: FDA samples shipping today: taurine, carnitine

Thank you. Attached is the COA for the previous sample.

B6



From: Jones, Jennifer L [<mailto:Jennifer.Jones@fda.hhs.gov>]
Sent: Thursday, August 03, 2017 10:41 AM
To: B6
Cc: Ceric, Olgica
Subject: [External] head's up: FDA samples shipping today: taurine, carnitine

EXTERNAL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

Hi B6
We're shipping a dog food sample for testing. It should arrive tomorrow morning.
Tracking: [1ZA4420T1392373895](#)
Thank you,
Jen

Jennifer L. A. Jones, DVM
Veterinary Medical Officer

U.S. Food & Drug Administration
Center for Veterinary Medicine
Office of Research
Veterinary Laboratory Investigation and Response Network (Vet-LIRN)
8401 Muirkirk Road, G704
Laurel, Maryland 20708
new tel: 240-402-5421
fax: 301-210-4685
e-mail: jennifer.jones@fda.hhs.gov
Web: <http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>



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If you have received this e-mail transmission in error or this email is not intended for you, please delete or destroy all copies of this message in your possession and inform the sender. Thank you.

From: Nemser, Sarah </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=5FC1EB8D2F5944ECAA02F40E225C2054-SNEMSER>
To: [REDACTED] B6
CC: Jones, Jennifer L
Sent: [REDACTED] B6 11:49:07 PM
Subject: RE: Necropsy authorization

Hi [REDACTED] B6

[REDACTED] B6 - sorry I missed your email.

I am including Dr. Jennifer Jones, who coordinates all of our DCM cases. I'm very sorry to hear about [REDACTED] B6

Could you forward the medical records to Dr. Jones for initial review so we can understand the case in more detail?

Thanks,
Sarah

Sarah Nemser M.S.

Vet-LIRN Network Coordinator

tel: 240-402-0892

fax: 301-210-4685
sarah.nemser@fda.hhs.gov

From: [REDACTED] B6
Sent: [REDACTED] B6 12:01 PM
To: Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>
Subject: Necropsy authorization

Hi Sarah,
I left a message on your number this morning but figured I would also follow up with an email. Dr. Josh Stern gave us your contact information. We have a nutrition mediated DCM case, diagnosed at UC Davis that will be euthanized. [REDACTED] B6 [REDACTED] B6 is in CHF and isn't responding to treatment. She is a 3.5yr old, FS, Golden Retriever. The owner is willing to submit the body/tissues towards research on this condition. [REDACTED] B6 is out of the office today. Please give me a call at your earliest convenience to discuss next steps [REDACTED] B6
Sincerely,

[REDACTED] B6

B6

B6

 Like us on
Facebook

Find us on Yelp 

From: Norris, Anne </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=891982B43D804C9396555BAF36C73DE1-ANNE.NORRIS>
To: Jones, Jennifer L; Palmer, Lee Anne; Carey, Lauren
Sent: 8/15/2019 11:36:09 PM
Subject: RE: Official Job Titles for JAVMA Article

The reporter came back and asked if you could review the information below and address one question. If possible, could you please get back to me before the weekend? He didn't use the titles I gave him so I'll double back on that front when sharing your responses.

TY!

As I'm wrapping up the article on DCM, I drafted a few paragraphs that I also want to run by Drs. Palmer and Jones to verify the details are accurate. Could you also help me check the following?

B5

From: Norris, Anne
Sent: Thursday, August 15, 2019 12:43 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>
Subject: RE: Official Job Titles for JAVMA Article

Perfect. Thanks, all!

From: Jones, Jennifer L
Sent: Thursday, August 15, 2019 12:39 PM
To: Norris, Anne <Anne.Norris@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>

Subject: RE: Official Job Titles for JAVMA Article

Yes, I'm a VMO for Vet-LIRN

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Norris, Anne

Sent: Thursday, August 15, 2019 12:33 PM

To: Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>

Subject: RE: Official Job Titles for JAVMA Article

Great, thank you!

So Jen, you're a VMO with CVM's Office of Research? Should Vet-LIRN be in there somehow?

And Lauren, you're a VMO with CVM's Division of Veterinary Product Safety and Lee Anne, you're a Supervisory VMO for CVM's Division of Veterinary Product Safety?

From: Palmer, Lee Anne

Sent: Thursday, August 15, 2019 12:23 PM

To: Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Norris, Anne <Anne.Norris@fda.hhs.gov>

Subject: RE: Official Job Titles for JAVMA Article

Supervisory Veterinary Medical Officer 😊. Thanks!

From: Carey, Lauren

Sent: Thursday, August 15, 2019 12:12 PM

To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Norris, Anne <Anne.Norris@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>

Subject: RE: Official Job Titles for JAVMA Article

Veterinary Medical Officer here as well. Thanks, Anne!

Lauren

From: Jones, Jennifer L

Sent: Thursday, August 15, 2019 12:12 PM

To: Norris, Anne <Anne.Norris@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>

Subject: RE: Official Job Titles for JAVMA Article

Veterinary Medical Officer

Thanks, Anne

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Norris, Anne

Sent: Thursday, August 15, 2019 12:11 PM

To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>;

Carey, Lauren <Lauren.Carey@fda.hhs.gov>

Subject: Official Job Titles for JAVMA Article

Hi ladies,

A reporter from JAVMA News reached out to ask if you could provide your official FDA titles for an article he's writing about your recent DCM presentation at AVMA. Could you please let me know when you have a moment?

Thanks,

Anne

Anne Norris

Strategic Initiatives

Office of the Director

Center for Veterinary Medicine

U.S. Food & Drug Administration

O: 240-402-0132

M: 240-704-0579

Anne.Norris@fda.hhs.gov



From: Carey, Lauren </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=F0226BD682844FA2B71EA3750D4FCB82-LAUREN.CARE>
To: Norris, Anne; Jones, Jennifer L; Palmer, Lee Anne
Sent: 8/16/2019 11:39:15 AM
Subject: RE: Official Job Titles for JAVMA Article

Nothing from me, other than the misspelling of Lee Anne's name – "e" at the end of Anne is missing. ☺

Thanks,
Lauren

From: Norris, Anne
Sent: Friday, August 16, 2019 7:23 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>
Subject: RE: Official Job Titles for JAVMA Article

Great. Thank you!

From: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Date: August 16, 2019 at 6:35:43 AM EDT
To: Norris, Anne <Anne.Norris@fda.hhs.gov>, Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>, Carey, Lauren <Lauren.Carey@fda.hhs.gov>
Subject: RE: Official Job Titles for JAVMA Article

Thanks, Anne. I don't have any edits to the language. For the question:

B5

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Norris, Anne
Sent: Thursday, August 15, 2019 7:36 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>
Subject: RE: Official Job Titles for JAVMA Article

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Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



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From: Palmer, Lee Anne

Sent: Thursday, August 15, 2019 12:23 PM

To: Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Norris, Anne <Anne.Norris@fda.hhs.gov>

Subject: RE: Official Job Titles for JAVMA Article

Supervisory Veterinary Medical Officer 😊. Thanks!

From: Carey, Lauren

Sent: Thursday, August 15, 2019 12:12 PM

To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Norris, Anne <Anne.Norris@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>

Subject: RE: Official Job Titles for JAVMA Article

Veterinary Medical Officer here as well. Thanks, Anne!

Lauren

From: Jones, Jennifer L

Sent: Thursday, August 15, 2019 12:12 PM

To: Norris, Anne <Anne.Norris@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>

Subject: RE: Official Job Titles for JAVMA Article

Veterinary Medical Officer

Thanks, Anne

Jennifer Jones, DVM

Veterinary Medical Officer

Tel: 240-402-5421



From: Norris, Anne

Sent: Thursday, August 15, 2019 12:11 PM

To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>

Subject: Official Job Titles for JAVMA Article

Hi ladies,

A reporter from JAVMA News reached out to ask if you could provide your official FDA titles for an article he's writing about your recent DCM presentation at AVMA. Could you please let me know when you have a moment?

Thanks,
Anne

Anne Norris
Strategic Initiatives

Office of the Director
Center for Veterinary Medicine
U.S. Food & Drug Administration
O: 240-402-0132
M: 240-704-0579
Anne.Norris@fda.hhs.gov



From: Norris, Anne </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=891982B43D804C9396555BAF36C73DE1-ANNE.NORRIS>
To: Jones, Jennifer L; Palmer, Lee Anne; Carey, Lauren
Sent: 8/16/2019 11:22:31 AM
Subject: RE: Official Job Titles for JAVMA Article

Great. Thank you!

From: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Date: August 16, 2019 at 6:35:43 AM EDT
To: Norris, Anne <Anne.Norris@fda.hhs.gov>, Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>, Carey, Lauren <Lauren.Carey@fda.hhs.gov>
Subject: RE: Official Job Titles for JAVMA Article

Thanks, Anne. I don't have any edits to the language. For the question:

B5

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Norris, Anne
Sent: Thursday, August 15, 2019 7:36 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>
Subject: RE: Official Job Titles for JAVMA Article

The reporter came back and asked if you could review the information below and address one question. If possible, could you please get back to me before the weekend? He didn't use the titles I gave him so I'll double back on that front when sharing your responses.

TY!

As I'm wrapping up the article on DCM, I drafted a few paragraphs that I also want to run by Drs. Palmer and Jones to verify the details are accurate. Could you also help me check the following?

B5

B5

I also have one follow-up question for the presenters: I heard some dogs with DCM have improved with changes in diet, even those without supplemental taurine. Does this match with your findings from follow-up studies?

From: Norris, Anne
Sent: Thursday, August 15, 2019 12:43 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>
Subject: RE: Official Job Titles for JAVMA Article

Perfect. Thanks, all!

From: Jones, Jennifer L
Sent: Thursday, August 15, 2019 12:39 PM
To: Norris, Anne <Anne.Norris@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>
Subject: RE: Official Job Titles for JAVMA Article

Yes, I'm a VMO for Vet-LIRN

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Norris, Anne
Sent: Thursday, August 15, 2019 12:33 PM
To: Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: RE: Official Job Titles for JAVMA Article

Great, thank you!

So Jen, you're a VMO with CVM's Office of Research? Should Vet-LIRN be in there somehow?

And Lauren, you're a VMO with CVM's Division of Veterinary Product Safety and Lee Anne, you're a Supervisory VMO for CVM's Division of Veterinary Product Safety?

From: Palmer, Lee Anne
Sent: Thursday, August 15, 2019 12:23 PM
To: Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Norris,

Anne <Anne.Norris@fda.hhs.gov>

Subject: RE: Official Job Titles for JAVMA Article

Supervisory Veterinary Medical Officer 😊. Thanks!

From: Carey, Lauren

Sent: Thursday, August 15, 2019 12:12 PM

To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Norris, Anne <Anne.Norris@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>

Subject: RE: Official Job Titles for JAVMA Article

Veterinary Medical Officer here as well. Thanks, Anne!

Lauren

From: Jones, Jennifer L

Sent: Thursday, August 15, 2019 12:12 PM

To: Norris, Anne <Anne.Norris@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>

Subject: RE: Official Job Titles for JAVMA Article

Veterinary Medical Officer

Thanks, Anne

Jennifer Jones, DVM

Veterinary Medical Officer

Tel: 240-402-5421



From: Norris, Anne

Sent: Thursday, August 15, 2019 12:11 PM

To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>

Subject: Official Job Titles for JAVMA Article

Hi ladies,

A reporter from JAVMA News reached out to ask if you could provide your official FDA titles for an article he's writing about your recent DCM presentation at AVMA. Could you please let me know when you have a moment?

Thanks,

Anne

Anne Norris

Strategic Initiatives

Office of the Director

Center for Veterinary Medicine

U.S. Food & Drug Administration

O: 240-402-0132

M: 240-704-0579

Anne.Norris@fda.hhs.gov







Tufts Cummings School Of Veterinary Medicine

200 Westboro Road
North Grafton, MA 01536

DUPLICATE

Name/DOB: B6	Sex: F	Provider: B6
Patient ID: B6	Age: 6	Order Location: V320559: Investigation into
Phone number:	Species: Canine	Sample ID: 1902050104
Collection Date: 2/5/2019 12:44 PM	Breed: Irish Wolfhound	
Approval date: 2/5/2019 2:27 PM		

CBC, Comprehensive, Sm Animal (Research)

		Ref. Range/Females
SLOPEZ		
WBC (ADVIA)	B6	4.40-15.10 K/uL
RBC (Advia)	B6	5.80-8.50 M/uL
Hemoglobin (ADVIA)	B6	13.3-20.5 g/dL
Hematocrit (Advia)	B6	39-55 %
MCV (ADVIA)	B6	64.5-77.5 fL
MCH (ADVIA)	B6	21.3-25.9 pg
CHCM		
MCHC (ADVIA)	B6	31.9-34.3 g/dL
RDW (ADVIA)	B6	11.9-15.2
Platelet Count (Advia)	B6	173-486 K/uL
02/05/19 2:26 PM		
Mean Platelet Volume (Advia)	B6	8.29-13.20 fl
02/05/19 1:09 PM		
Platelet Crit	B6	0.129-0.403 %
02/05/19 1:09 PM		
PDW		
Reticulocyte Count (Advia)	B6	0.20-1.60 %
Absolute Reticulocyte Count (Advia)	B6	14.7-113.7 K/uL
CHr		
MCVr		

Microscopic Exam of Blood Smear (Advia)

		Ref. Range/Females
SLOPEZ		
Seg Neuts (%)	B6	43-86 %
Lymphocytes (%)	B6	7-47 %
Monocytes (%)	B6	1-15 %
Eosinophils (%)	B6	0-16 %
Seg Neutrophils (Abs) Advia	B6	2.800-11.500 K/ul
Lymphs (Abs) Advia	B6	1.00-4.80 K/uL
Mono (Abs) Advia	B6	0.10-1.50 K/uL
Eosinophils (Abs) Advia	B6	0.00-1.40 K/uL
WBC Morphology	B6	
Poikilocytosis	B6	

Research Chemistry Profile - Small Animal (Cobas)

Sample ID: 1902050104/1
This report continues... (Final)

Reviewed by: _____



Tufts Cummings School Of Veterinary Medicine

200 Westboro Road
North Grafton, MA 01536

DUPLICATE

Name/DOB: **B6**
Patient ID: **B6**

Sex: F

Provider: **B6**

Order Location: V320559: Investigation into

Phone number:

Age: 6

Sample ID: 1902050104

Collection Date: 2/5/2019 12:44 PM

Species: Canine

Approval date: 2/5/2019 2:27 PM

Breed: Irish Wolfhound

Research Chemistry Profile - Small Animal (Cobas) (cont'd)

SMACHUNSKI

Ref. Range/Females

Glucose

67-135 mg/dL

Urea

8-30 mg/dL

Creatinine

0.6-2.0 mg/dL

Phosphorus

2.6-7.2 mg/dL

Calcium 2

9.4-11.3 mg/dL

Magnesium 2+

1.8-3.0 mEq/L

Total Protein

5.5-7.8 g/dL

Albumin

2.8-4.0 g/dL

Globulins

2.3-4.2 g/dL

A/G Ratio

0.7-1.6

Sodium

140-150 mEq/L

Chloride

106-116 mEq/L

Potassium

3.7-5.4 mEq/L

tCO2(Bicarb)

14-28 mEq/L

AGAP

8.0-19.0

NA/K

29-40

Total Bilirubin

0.10-0.30 mg/dL

Alkaline Phosphatase

12-127 U/L

GGT

0-10 U/L

ALT

14-86 U/L

AST

9-54 U/L

Creatine Kinase

22-422 U/L

Cholesterol

82-355 mg/dL

Triglycerides

30-338 mg/dl

Amylase

409-1250 U/L

Osmolality (calculated)

291-315 mmol/L

Comments (Chemistry)

B6

B6

records.

Patient History Report

Client:
Phone:
Address:

B6

Patient:

B6

Species: Canine

Breed: Golden Retriever

Age:

B6

Sex: M/Neutered

Color: Buff

Date Type

Staff

History

B6

B6

records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6		
		Color:	Buff		

Date	Type	Staff	History
------	------	-------	---------

8/21/2018	B	012	Reason for Visit: TECH APPOINTMENT Date Patient Checked Out: 08/21/18 Practice: 1 1.00 Blood Draw/Pack (B6) (374) by 022
-----------	---	-----	--

8/7/2018	C	081	Phone & Other Contact - CLOSED 08/17/2018 - Wanting to schedule blood draw to check taurine levels
----------	---	-----	--

B6

7/2/2018	C	025	Intermediate Exam - CLOSED 07/10/2018 - Lip depigmentation; sebaceous cyst L pelvic area
----------	---	-----	--

B6

7/2/2018	V	093	Jul 2, 2018 11:26 AM Staff: 093 Weight : 76.6 pounds
----------	---	-----	---

B6

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
7/2/2018	B	025	B6
7/2/2018	B	025	
7/2/2018	B	025	
6/18/2018	B	019	
6/14/2018	I	019	
6/14/2018	P	019	

5/1/2018 C 303 Medical History Transfer - CLOSED: 05/07/2018 - Forwarded To **B6**

Who Initiated Request?	Client
What Records?	Vaccination record
How Were Records Sent?	B6
When Forwarded?	5/1/18
Where Forwarded?	B6
Who Prepared Records?	B6
Who Sent Records?	B6
Reason for this Record Transfer?	needs for daycare

4/13/2018 C 025 Canine General Exam - CLOSED: 04/21/2018 - Six month checkup

B6

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimate, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6 records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
------	------	-------	---------

B6

4/13/2018	V	076	B6
4/13/2018	CK	025	
4/13/2018	B	025	
4/13/2018	B	025	
4/13/2018	B	025	
4/13/2018	B	025	
4/6/2018	I	002	
4/6/2018	P	002	
4/6/2018	B	002	
3/14/2018	V	088	
3/14/2018	P	025	

3/14/2018 C 088 Phone & Other Contact - CLOSED 03/24/2018 - round worms

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

B6

records.

Patient History Report

Client:	B6	Patient:	B6
Phone:		Species:	Canine
Address:		Breed:	Golden Retriever
		Age:	B6
		Color:	Buff
		Sex:	M/Neutered

Date	Type	Staff	History
------	------	-------	---------

B6

3/14/2018	B	025	B6
-----------	---	-----	-----------

3/7/2018	C	088	Phone & Other Contact - CLOSED 03/17/2018 - Taurine levels
----------	---	-----	--

Client Initiated Call / Contact
 M/C Initiated Call / Contact
 LMDM
 In Person
 E-mail
 B6 called and said that she has been told there have been issues with Golden retrievers and their Taurine levels. I told her that I do not know much about that, and they are usually done on cats. She said she understands that but wants them done on B6 and B6. I didn't know much about it so I sent a note to B6 to see how I should schedule these and what info I should give it as well. 3/7/18 B6
 2:09pm Called client back-- per B6 yes we can do this kind of test, but we need to order special sample tubes from our lab and it would cost around B6 to perform. Client will check in with her emergency vet to see how they price it. B6

3/5/2018	V	088	Mar 5, 2018 06:30 PM Staff: 088 Weight : 72.5 pounds
2/16/2018	B	0	B6
2/12/2018	I	002	
2/12/2018	P	002	

B6

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

B6

records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
------	------	-------	---------

B6

Diagnostics / Other / Comments	None
Rx & Follow-up	B6

2/8/2018	V	081	Feb 8, 2018 03:04 PM Staff: 081 Weight : 72.9 pounds
2/8/2018	CK	0	B6
2/8/2018	B	002	
12/14/2017	I	002	
12/14/2017	P	002	
12/14/2017	B	002	

10/6/2017	C	025	Phone & Other Contact - CLOSED 10/16/2017 - Bloodwork fine, borderline anemia stable, C6 <10
<input type="checkbox"/> Client Initiated Call/Contact <input checked="" type="checkbox"/> M/C Initiated Call/Contact <input type="checkbox"/> LMDM <input type="checkbox"/> In Person <input type="checkbox"/> E-mail			

10/6/2017	L	025	Immunology results from IDEXX Reference
			Laboratory Requisition ID: 107016035
Test	Result	Posted	Final
		Reference Range	

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

B6 records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
------	------	-------	---------

B6

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative medl note, V: Vital signs

B6

B6

records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
------	------	-------	---------

B6

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B6

Patient History Report

Client:	B6	Patient:	B6
Phone:		Species:	Canine
Address:		Age:	B6
		Color:	Buff
		Breed:	Golden Retriever
		Sex:	M/Neutered

Date	Type	Staff	History
------	------	-------	---------

10/6/2017	L	025	Chemistry results from IDEXX Reference Laboratory Requisition ID: 107016035
			Posted Final
			Test Result Reference Range
			GLU 63 - 114
			ALB 2.7 - 3.9
			ALKP 5 - 160
			ALT 18 - 121
			ANION GAP 11 - 26
			AST 16 - 55
			BICARB 13 - 27
			BUN/UREA 9 - 31
			Ca 8.4 - 11.8
			Chloride 108 - 119
			CHOL 131 - 345
			CREA 0.5 - 1.5
			DBIL 0.0 - 0.1
			GGT 0 - 13
			IBIL 0.0 - 0.2
			PHOS 2.5 - 6.1
			Potassium 4.0 - 5.4
			TBIL 0.0 - 0.3
			TP 5.5 - 7.5
			Sodium 142 - 152
			A/C Ratio 0.7 - 1.5
			B/C Ratio
			Na/K Ratio 28 - 37
			GLOB 2.4 - 4.0
			CK 10 - 200
			SDMA 0 - 14
			Ascn: B6

B6

10/6/2017	L	025	Hematology results from IDEXX Reference Laboratory Requisition ID: 107016035
			Posted Final
			Test Result Reference Range

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

B6

records.

Patient History Report

Client:	B6	Patient:	B6
Phone:		Species:	Canine
Address:		Age:	B6
		Color:	Buff
		Breed:	Golden Retriever
		Sex:	M/Neutered

Date	Type	Staff	History
------	------	-------	---------

ANISO	B6	
BASO		
EOS		
HCT		38.3 - 56.5
HGB		13.4 - 20.7
LYMPHS		
MCH		21.9 - 26.1
MCHC		32.6 - 39.2
MCV		59 - 76
MONOS		
NEUT SEG		
PLATELETS		143 - 448
RBC		5.39 - 8.70
RETIC CNT		
WBC		4.9 - 17.6
ABS BASO	0 - 100	
ABS EOS	70 - 1490	
ABS LYMPHS	1060 - 4950	
ABS MONOS	130 - 1150	
ABS NEUTS	2940 - 12670	
ABS RET	10 - 110	
Asc:	B6	
RE: 3034	REMARKS	
REMARKS		
SLIDE REVIEWED MICROSCOPICALLY.		
NO PARASITES SEEN		

10/6/2017	L	025	Immunology results from IDEXX Reference			
			Laboratory Requisition ID: 107016035	Posted	Final	
			Test	Result	Reference Range	
			EHRlichia			
			HEARTWORM			
			ANA PH			
			LYME			
			Asc:	B6		

B6

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

B6

records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
------	------	-------	---------

B6

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimate, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

B6 records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
------	------	-------	---------

Panel Add-on
(preferred)

10/5/2017 I 025

B6

10/5/2017 I 025

10/5/2017 C 025 Canine General Exam - CLOSED 10/13/2017 - Lepto, 4DX/G6/CBC/Chem, annual

History / Concerns:

- Behavior
- Diet / Supps / Meds
- Htwn Prev in Use
- F & T Prev in Use
- Fecal Needed?
- BCS
- Subjective
- NEET
- Lymph Nodes
- Heart & Lungs
- Abdomen
- GU & Perineum
- Derm
- Lumps or Bumps
- Musculoskel / Neuro
- Diagnostics / Other /
- Comments
- Rx & Follow-up

B6

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative medl note, V: Vital signs

B6

B6 records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
10/5/2017	P	025	B6
10/5/2017	V	028	
10/5/2017	CK	025	
10/5/2017	B	025	
10/5/2017	B	025	
10/5/2017	B	025	
10/5/2017	B	025	
10/5/2017	B	025	
10/5/2017	B	025	
10/5/2017	B	025	

10/4/2017 C 055 Medical Hx / Lab Results Received - CLOSED 10/25/2017 - **B6**
B6
SUMMARY:

10/3/2017 C 084 Medical Hx / Lab Results Received - CLOSED 10/24/2017 - **B6**
B6
SUMMARY:

8/12/2017 C 001 Medical Hx / Lab Results Received - CLOSED 09/11/2017 - **B6**
B6
 Hard copy is filed Document is captured below, no hard copy saved

B6

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
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8/9/2017	C	070	Phone & Other Contact - CLOSED 08/19/2017 B6
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<input checked="" type="checkbox"/> Client Initiated Call / Contact	<input type="checkbox"/> M/C Initiated Call / Contact	<input type="checkbox"/> LMOM	<input type="checkbox"/> In Person	<input type="checkbox"/> E-mail
B6				

8/8/2017	C	080	Phone & Other Contact - CLOSED 08/18/2017 - T4 looking great
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<input type="checkbox"/> Client Initiated Call / Contact	<input checked="" type="checkbox"/> M/C Initiated Call / Contact	<input type="checkbox"/> LMOM	<input type="checkbox"/> In Person	<input type="checkbox"/> E-mail
B6				

8/8/2017	L	025	Endocrinology results from IDEXX Reference
Laboratory Requisition ID: 106060437			Posted Final
Test	Result	Reference Range	
T4	B6	1.0 - 4.0	
Asc#	B6		

Interpretive ranges:
 <1.0 Low
 1.0-4.0 Normal
 >4.0 High
 2.1-5.4 Therapeutic

Dogs with no clinical signs of hypothyroidism and results within the normal reference range are likely euthyroid. Dogs with low T4 concentrations may be hypothyroid or euthyroid sick. Occasionally, hypothyroid dogs can have T4 concentrations that are low normal. Dogs with clinical signs of hypothyroidism and low or low normal T4 concentrations may be evaluated further by submission of free T4 and canine TSH. A high T4 concentration in a clinically normal dog is likely variation of normal; however elevations may occur

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B6 records.

Patient History Report

Client:	B6	Patient:	B6
Phone:		Species:	Canine
Address:		Age:	B6
		Color:	Buff
		Breed:	Golden Retriever
		Sex:	M/Neutered

Date	Type	Staff	History
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B6

8/7/2017	C	086	Office Visit - CLOSED 08/15/2017 - tech appt. (B6 IDEXX)
Reason For Visit		B6	
Discussion Items: Enter Item Discussed		B6	
Follow Up needed / recommended: None			

8/7/2017	CK	101	B6
8/7/2017	B	025	
8/3/2017	I	025	
8/3/2017	P	025	
8/3/2017	B	025	
8/3/2017	B	025	

8/1/2017	C	085	Phone & Other Contact - CLOSED 08/11/2017 -	B6
Client Initiated Call / Contact		MVC Initiated Call / Contact		B6
<input type="checkbox"/> LMDM		<input type="checkbox"/> In Person		<input type="checkbox"/> E-mail

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimate, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6 records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	BUFF

Date	Type	Staff	History
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12:56			B6
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6/8/2017	C	084	Medical History Transfer - CLOSED 06/13/2017 - Forwarded To -->	B6
Who Initiated Request?	Client	B6		
What Records?	All records since 8/1/2015 per	B6		
How Were Records Sent?	Emailed			
When Forwarded?	6/8/17 @ 4:15			
Where Forwarded?		B6		
Who Prepared Records?	CE			
Who Sent Records?	CE			
Reason for this Record Transfer?	Pt will be going to	B6		

5/31/2017	I	025	B6	
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5/31/2017	C	025	Office Visit - CLOSED 06/08/2017	B6
Reason For Visit	B6			
Discussion Items: General PE	B6			
Follow Up needed / recommended	B6			

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6 records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
5/31/2017	P	025	B6
5/31/2017	V	068	
5/31/2017	CK	025	
5/31/2017	B	025	
5/31/2017	B	025	
5/31/2017	B	025	
5/31/2017	B	025	
5/31/2017	B	025	
4/10/2017	CB	0	
2/23/2017	P	025	
2/23/2017	I	025	

2/23/2017	C	025	B6
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Client Initiated Call / Contact MVC Initiated Call / Contact LMDM In Person E-mail
o/c, reports dog continues to urinate in house. Discussed the low T4, free T4, and TSH - not classic hypothyroid panel but about 10-15% of hypothyroid dogs will have this pattern. Rec. supplementation trial, but if it does not impact his behavior after a few months we will stop it. Ct can't pick up meds for a few weeks due to broken foot, that's fine. **B6**

2/23/2017	B	025	B6
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B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

Patient History Report

Client:	B6	Patient:	B6
Phone:		Species:	Canine
Address:		Age:	B6
		Color:	Buff
		Breed:	Golden Retriever
		Sex:	M/Neutered

Date	Type	Staff	History
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12/22/2016 C 025

B6

<input type="checkbox"/> Client Initiated Call / Contact	<input checked="" type="checkbox"/> MVC Initiated Call / Contact	<input type="checkbox"/> LMOM	<input type="checkbox"/> In Person	<input type="checkbox"/> E-mail
B6				

12/22/2016 L 015

Urinalysis - MVC results from In-House Testing (non Idexx) Requisition ID: 0 Posted Final

Test	Result	Reference Range
SOURCE =	B6	
SP. GRAV =		
GLU =		
BILI =		
KET =		
BLOOD =		
PH =		
PROT =		
PLATED? =		
Manually entered		

nsf. SD
Plated=no growth in 24 hours. AS

12/22/2016 L 015

Endocrinology results from IDEXX Reference Laboratory Requisition ID: 14773-3C Posted Final

Test	Result	Reference Range
TSH K9	B6	0.05 - 0.42
Ascn:		

AO DONE:

Increased canine TSH values may occur in dogs with untreated primary hypothyroidism. Sick euthyroid dogs are expected to have low normal TSH concentrations. Secondary or tertiary hypothyroidism (pituitary or hypothalamic lesions) are reported to occur in less than 5% of hypothyroid dogs.

12/22/2016 L 015

B6

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6 records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
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B6

12/22/2016 L 015

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

B6 records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6		
		Color:	Buff		

Date	Type	Staff	History
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B6

12/22/2016 B 0
12/22/2016 B 0
12/22/2016 B 0
12/22/2016 B 025

B6

12/21/2016 C 001

B6

Chief Complaint
History

B6

W/D C/S PUP/D?

Appetite/Attitude

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

B6 records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
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Current Meds/Supps Diet BCS Subjective Temperature NEET Lymph Nodes Heart & Lungs Abdomen GU & Perineum Derm Lumps or Bumps Musculoskel / Neuro Diagnostics / Other / Comments Rx & Follow-up	B6
--	-----------

12/21/2016	V	082	B6
12/21/2016	CK	001	
12/21/2016	B	001	
12/21/2016	B	001	

12/15/2016	C	022	B6
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Client Initiated Call / Contact
 M/C Initiated Call / Contact
 MDM
 In Person
 E-mail

B6

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

B6 records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
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11/22/2016	C	080	B6
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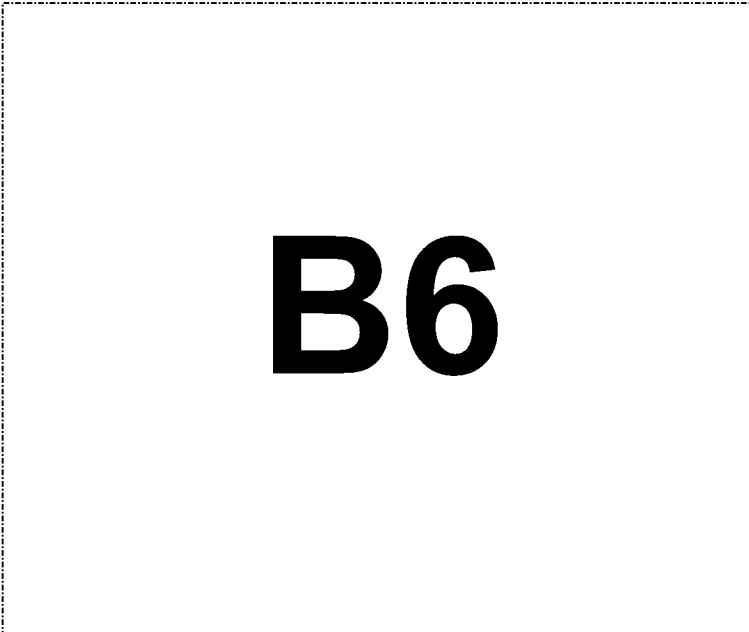
SUMMARY: Stable GR uveitis, no regrowth of lid masses

10/31/2016	V	070
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10/6/2016	B	025
9/16/2016	P	025

9/16/2016	L	025
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9/16/2016	B	025
9/16/2016	B	025
9/16/2016	B	025



9/15/2016	C	025
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Client Initiated Call / Contact MWC Initiated Call / Contact LMOM In Person E-mail



B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
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B6

9/14/2016	I	025	B6
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9/14/2016	C	025	B6
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- History / Concerns
- Behavior
- Diet / Supps / Meds
- Ht/wt: Prev in Use
- F & T Prev in Use
- Fecal Needed?
- BCS
- Subjective
- NEET
- Lymph Nodes
- Heart & Lungs
- Abdomen
- GU & Perineum
- Derm
- Lumps or Bumps
- Musculoskel / Neuro
- Diagnostics / Other /
- Comments
- Rx & Follow-up

B6

9/14/2016	V	012	Sep 14, 2016 09:50 AM Staff: 012
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B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative medl note, V: Vitalsigns

B6 records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
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9/14/2016 CK 025

9/14/2016 L

B6

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

B6 records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
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B6

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

B6 records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
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9/14/2016 L 1025

B6

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B6

B6 records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6		
		Color:	Buff		

Date	Type	Staff	History
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B6

9/14/2016 L 025

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
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B6

9/14/2016 L 025

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6 records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
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B6

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimate, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

B6 records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6		
		Color:	Buff		

Date	Type	Staff	History
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B6

9/14/2016	B	025
9/14/2016	B	025
9/14/2016	B	025
9/14/2016	B	025
9/14/2016	B	025
5/27/2016	L	015

5/27/2016	C	015
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B6

Reason For Visit: See previous phone note

Discussion Items:
PCV:

B6

Follow Up needed / recommended: As needed

5/27/2016	V	073
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B6

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative medl note, V: Vital signs

B6

B6 records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
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5/27/2016 CK 015

B6

5/27/2016 C 022

<input checked="" type="checkbox"/> Client Initiated Call/Contact	<input type="checkbox"/> M/C Initiated Call/Contact	<input type="checkbox"/> LMDM	<input checked="" type="checkbox"/> In Person	<input type="checkbox"/> E-mail
B6				

5/27/2016 B 015
5/27/2016 B 015
5/27/2016 B 015

B6

5/6/2016 C 074

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SUMMARY: **B6**

5/6/2016 C 068

B6

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SUMMARY:

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
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4/25/2016	C	074	B6
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SUMMARY:

4/23/2016	C	055	B6
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SUMMARY:

4/20/2016	C	074	B6
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SUMMARY: **B6**

3/14/2016	C	080	B6
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SUMMARY: **B6**

2/29/2016	B	0	B6
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2/19/2016	C	022
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SUMMARY:

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6 records.

Patient History Report

Client:	B6	Patient:	B6	Breed:	Golden Retriever
Phone:		Species:	Canine	Sex:	M/Neutered
Address:		Age:	B6	Color:	Buff

Date	Type	Staff	History
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2/1/2016	C	074	B6
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SUMMARY:

1/22/2016	C	025	B6
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Client Initiated Call/Contact M/C Initiated Call/Contact M/CU In Person E-mail

B6

1/11/2016	C	0	B6
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SUMMARY: **B6**

12/7/2015	C	074	B6
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B6

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B6

55 Willard Street
 North Grafton, MA 01536
 (508) 839-5395

Client: **B6**
 Veterinarian:
 Patient ID:
 Visit ID: 2496995

Patient: **B6**
 Species: Canine
 Breed: Golden Retriever
 Sex: Male (Neutered)
 Age: **B6** Years Old

Lab Results Report

T4/Clin Path		9/5/2018 5:43:00 PM	Accession ID	B6
Test	Results	Reference Range	Units	
T4/TOSOH	B6	1 - 4.1	ug/dl	

Client: **B6**
Patient: **B6**
Species: CANINE
Breed: GREAT_DANE
Gender: MALE NEUTERED
Age: 5Y

Date: **B6**
Requisition #: 365233
Accession #: **B6**
Ordered by: **B6**

IDEXX VetConnect 1-888-433-9987
TUFTS UNIVERSITY
200 WES TBORO RD
NORTH GRAFTON, Massachusetts 01536-1828
508-839-7936
Account #80735

CARDIOPEP proBNP - CANINE

Test	Result	Reference Range	Low	Normal	High
CARDIOPEP proBNP - CANINE	B6	0 - 900 pmol/L			B6

Comments:

1

B6

Please note: Complete interpretive comments for all concentrations of Cardiopet proBNP are available in the online directory of services. Serum specimens received at room temperature may have decreased NT-proBNP concentrations.

CARDIOLOGY DIET HISTORY FORM
Please answer the following questions about your pet

Pet's name: B6 Owner's name: B6 Today's date: 9/10/18

- How would you assess your pet's appetite? On a scale of 1-10 with 1 being poor and 10 being excellent: _____
- Have you noticed a change in your pet's appetite over the last 1-2 weeks? (check all that apply)
 Eats about the same amount as usual Eats less than usual Eats more than usual
 Seems to prefer different foods than usual Other _____
- Over the last few weeks, has your pet (check one)
 Lost weight Gained weight Stayed about the same weight Don't know
- Please list below ALL pet foods, people food, treats, snack, dental chews, rawhides, and any other food item that your pet currently eats. Please include the brand, specific product, and flavor so we know exactly what you pet is eating.

Food (include specific product and flavor) Form Amount How often? Fed since
Examples are shown in the table – please provide enough detail that we could go to the store and buy the exact same food.

Food (include specific product and flavor)	Form	Amount	How often?	Fed since
Nutro Grain Free Chicken, Lentil, & Sweet Potato Adult	dry	1 ½ cup	2x/day	Jan 2018
85% lean hamburger	microwaved	3 oz	1x/week	Jan 2015
Pupperoni original beef flavor	treat	½	1x/day	Aug 2015
Rawhide	treat	6 inch twist	1x/week	Dec 2015
Blue Seal Natural 26	dry			puppy-14 mos
Nature's Variety Instinct Raw Boost chicken	dry			14 mos until 1/8/18
Rachel Ray Nutrish Chicken and Veggies	dry			1/8/18-present
Cooked chicken or broth		1/3-1/2 cup per meal		
Occasional peanut butter or sweet potato homemade treats				

***Any additional diet information can be listed at the bottom of this sheet**

- Do you give any dietary supplements to your pet (for example: vitamins, glucosamine, fatty acids, or any other supplements)? Yes No If yes, please list which ones and give brands and amounts:

	Brand/Concentration	Amount per day
Taurine	<input type="radio"/> Yes <input checked="" type="radio"/> No _____	_____
Carnitine	<input type="radio"/> Yes <input checked="" type="radio"/> No _____	_____
Antioxidants	<input type="radio"/> Yes <input checked="" type="radio"/> No _____	_____
Multivitamin	<input type="radio"/> Yes <input checked="" type="radio"/> No _____	_____
Fish oil	<input type="radio"/> Yes <input checked="" type="radio"/> No _____	_____
Coenzyme Q10	<input type="radio"/> Yes <input checked="" type="radio"/> No _____	_____
Other (please list): Example: Vitamin C	Nature's Bounty	500 mg tablets – 1 per day
_____	_____	_____
_____	_____	_____
_____	_____	_____

- How do you administer pills to your pet?
 I do not give any medications I put them directly in my pet's mouth without food
 I put them in my pet's dog/cat food I put them in a Pill Pocket or similar product
 I put them in foods (list foods): _____

Additional diet or supplement information: _____

Information below to be completed by the veterinarian:
 Current body weight: _____ kg Current body condition score (1-9): ____/9
 Muscle Condition Score: normal muscle mild muscle loss moderate muscle loss severe muscle loss

From: Reimschuessel, Renate </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4C00C47AE2794134B2906D6B9252FCF6-RREIMSCH>
To: Jones, Jennifer L; Rotstein, David
Sent: 8/14/2018 1:46:04 PM
Subject: RE: Please Review-800.267-Rapid Necropsy Doc

B5

Renate Reimschuessel V.M.D. Ph.D. Director Vet-LIRN
Phone 1-240-402-5404
Fax 301-210-4685
<http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>

From: Jones, Jennifer L
Sent: Tuesday, August 14, 2018 9:44 AM
To: Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>
Subject: RE: Please Review-800.267-Rapid Necropsy Doc

B5

I agree with the other edits.

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Reimschuessel, Renate
Sent: Tuesday, August 14, 2018 9:37 AM
To: Rotstein, David <David.Rotstein@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: RE: Please Review-800.267-Rapid Necropsy Doc

I made major edits
Frankly it is way too wordy

B5

See if this works

Renate Reimschuessel V.M.D. Ph.D. Director Vet-LIRN
Phone 1-240-402-5404
Fax 301-210-4685
<http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>

From: Rotstein, David
Sent: Monday, August 13, 2018 3:45 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Subject: RE: Please Review-800.267-Rapid Necropsy Doc

Jen,

B5

David Rotstein, DVM, MPVM, Dipl. ACVP
CVM Vet-LIRN Liaison
CVM OSC/DC/CERT
7519 Standish Place
240-506-6763 (BB)



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From: Jones, Jennifer L
Sent: Monday, August 13, 2018 3:37 PM
To: Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>
Subject: RE: Please Review-800.267-Rapid Necropsy Doc
Importance: High

I made some edits:

B5

Please let me know ASAP if you think otherwise:

B5

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Reimschuessel, Renate
Sent: Thursday, August 09, 2018 8:06 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>
Subject: RE: Please Review-800.267-Rapid Necropsy Doc

I've made some edits

B5

Renate Reimschuessel V.M.D. Ph.D. Director Vet-LIRN

Phone 1-240-402-5404

Fax 301-210-4685

<http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>

From: Jones, Jennifer L

Sent: Thursday, August 9, 2018 6:56 AM

To: Rotstein, David <David.Rotstein@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>

Subject: RE: Please Review-800.267-Rapid Necropsy Doc

Round 1 of edits-thank you, Dave.

B5

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Rotstein, David

Sent: Wednesday, August 08, 2018 3:37 PM

To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>

Subject: Re: Please Review-800.267-Rapid Necropsy Doc

Looking now!

From: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>

Date: August 8, 2018 at 3:36:20 PM EDT

To: Rotstein, David <David.Rotstein@fda.hhs.gov>, Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>

Subject: Please Review-800.267-Rapid Necropsy Doc

Jennifer L. A. Jones, DVM

Veterinary Medical Officer
U.S. Food & Drug Administration
Center for Veterinary Medicine
Office of Research
Veterinary Laboratory Investigation and Response Network (Vet-LIRN)
8401 Muirkirk Road, G704
Laurel, Maryland 20708
new tel: 240-402-5421
fax: 301-210-4685
e-mail: jennifer.jones@fda.hhs.gov
Web: <http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>



From: Jones, Jennifer L </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0f6ca12eaa9348959a4cbb1e829af244-Jennifer.Jo>
To: 'Freeman, Lisa'; 'Darcy Adin'
CC: 'Joshua A Stern'; [REDACTED] Rotstein, David
Sent: 8/16/2018 12:13:20 PM
Subject: RE: a few NCSU cases
Attachments: 800.267-Vet-LIRN Rapid Necropsy-DCM-v7.pdf

Good morning everyone,
Here's our Vet-LIRN rapid necropsy document.
Take care,
Jen

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Jones, Jennifer L
Sent: Wednesday, August 15, 2018 2:49 PM
To: 'Freeman, Lisa' <Lisa.Freeman@tufts.edu>; Darcy Adin <dbadin@ncsu.edu>
Cc: Joshua A Stern <jstern@ucdavis.edu>; [REDACTED] B6
Subject: RE: a few NCSU cases

Thank you, Darcy! We'll be on the lookout for the cases.

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Freeman, Lisa [mailto:Lisa.Freeman@tufts.edu]
Sent: Wednesday, August 15, 2018 8:50 AM
To: Darcy Adin <dbadin@ncsu.edu>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Cc: Joshua A Stern <jstern@ucdavis.edu>; [REDACTED] B6
Subject: RE: a few NCSU cases

That's really interesting, Darcy!

I wonder: [REDACTED] B5

Thanks for sharing

Lisa

From: Darcy Adin <dbadin@ncsu.edu>
Sent: Tuesday, August 14, 2018 8:00 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Cc: Freeman, Lisa <lisa.freeman@tufts.edu>; Joshua A Stern <jstern@ucdavis.edu>; [REDACTED] B6
[REDACTED] B6
Subject: a few NCSU cases

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Thank you!
Darcy

--
Darcy B. Adin, DVM, DACVIM (Cardiology)
Clinical Assistant Professor of Cardiology
North Carolina State University
NC State Veterinary Hospital
1060 William Moore Drive
Raleigh, NC 27607
919-513-6032

From: Rotstein, David </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0A3B17EBFCF14A6CB8E94F322906BADD-DROTSTEI>
To: Jones, Jennifer L; Peloquin, Sarah
Sent: 8/16/2018 6:25:26 PM
Subject: FW: a few NCSU cases

Assuming this is about location.

I'd suggest two sites:

B5

B5

but I think it's worth considering.

David Rotstein, DVM, MPVM, Dipl. ACVP
CVM Vet-LIRN Liaison
CVM OSC/DC/CERT
7519 Standish Place
240-506-6763 (BB)



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From: Freeman, Lisa [mailto:Lisa.Freeman@tufts.edu]
Sent: Thursday, August 16, 2018 2:18 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Darcy Adin <dbadin@ncsu.edu>
Cc: Joshua A Stern <jstern@ucdavis.edu> **B6** Rotstein, David <David.Rotstein@fda.hhs.gov>
Subject: RE: a few NCSU cases

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Lisa

From: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Sent: Thursday, August 16, 2018 8:13 AM
To: Freeman, Lisa <lisa.freeman@tufts.edu>; Darcy Adin <dbadin@ncsu.edu>
Cc: Joshua A Stern <jstern@ucdavis.edu> **B6** Rotstein, David <David.Rotstein@fda.hhs.gov>
Subject: RE: a few NCSU cases

Good morning everyone,
Here's our Vet-LIRN rapid necropsy document.
Take care,
Jen

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Jones, Jennifer L
Sent: Wednesday, August 15, 2018 2:49 PM
To: 'Freeman, Lisa' <Lisa.Freeman@tufts.edu>; Darcy Adin <dbadin@ncsu.edu>
Cc: Joshua A Stern <jstern@ucdavis.edu>; [REDACTED] B6
Subject: RE: a few NCSU cases

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Jennifer Jones, DVM
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Tel: 240-402-5421



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Sent: Wednesday, August 15, 2018 8:50 AM
To: Darcy Adin <dbadin@ncsu.edu>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Cc: Joshua A Stern <jstern@ucdavis.edu>; [REDACTED] B6
Subject: RE: a few NCSU cases

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I wonder [REDACTED] B5

Thanks for sharing [REDACTED]

Lisa

From: Darcy Adin <dbadin@ncsu.edu>
Sent: Tuesday, August 14, 2018 8:00 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Cc: Freeman, Lisa <lisa.freeman@tufts.edu>; Joshua A Stern <jstern@ucdavis.edu>; [REDACTED] B6
[REDACTED] B6
Subject: a few NCSU cases

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Darcy B. Adin, DVM, DACVIM (Cardiology)
Clinical Assistant Professor of Cardiology
North Carolina State University
NC State Veterinary Hospital
1060 William Moore Drive
Raleigh, NC 27607
919-513-6032

From: Jones, Jennifer L </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0f6ca12eaa9348959a4cbb1e829af244-Jennifer.Jo>
To: Rotstein, David; Peloquin, Sarah
Sent: 8/16/2018 6:39:15 PM
Subject: RE: a few NCSU cases

B5

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Rotstein, David
Sent: Thursday, August 16, 2018 2:25 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Subject: FW: a few NCSU cases

Assuming this is about location.

I'd suggest two sites:

B5

B5

But I think it's worth considering.

David Rotstein, DVM, MPVM, Dipl. ACVP
CVM Vet-LIRN Liaison
CVM OSC/DC/CERT
7519 Standish Place
240-506-6763 (BB)



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From: Freeman, Lisa [<mailto:Lisa.Freeman@tufts.edu>]
Sent: Thursday, August 16, 2018 2:18 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Darcy Adin <dbadin@ncsu.edu>
Cc: Joshua A Stern <jsstern@ucdavis.edu>; **B6** Rotstein, David <David.Rotstein@fda.hhs.gov>
Subject: RE: a few NCSU cases

Hi Jen

B5

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looking for.

We appreciate your putting this together. This will be helpful

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Sent: Thursday, August 16, 2018 8:13 AM

To: Freeman, Lisa <lisa.freeman@tufts.edu>; Darcy Adin <dbadin@ncsu.edu>

Cc: Joshua A Stern <jstern@ucdavis.edu>; **B6**; Rotstein, David <David.Rotstein@fda.hhs.gov>

Subject: RE: a few NCSU cases

Good morning everyone,

Here's our Vet-LIRN rapid necropsy document.

Take care,

Jen

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Jones, Jennifer L

Sent: Wednesday, August 15, 2018 2:49 PM

To: 'Freeman, Lisa' <Lisa.Freeman@tufts.edu>; Darcy Adin <dbadin@ncsu.edu>

Cc: Joshua A Stern <jstern@ucdavis.edu>; **B6**

Subject: RE: a few NCSU cases

Thank you, Darcy! We'll be on the lookout for the cases.

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Freeman, Lisa [<mailto:Lisa.Freeman@tufts.edu>]

Sent: Wednesday, August 15, 2018 8:50 AM

To: Darcy Adin <dbadin@ncsu.edu>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>

Cc: Joshua A Stern <jstern@ucdavis.edu>; **B6**

Subject: RE: a few NCSU cases

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From: Darcy Adin <dbadin@ncsu.edu>

Sent: Tuesday, August 14, 2018 8:00 PM

To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>

Cc: Freeman, Lisa <lisa.freeman@tufts.edu>; Joshua A Stern <jstern@ucdavis.edu>; **B6**

B6

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Darcy B. Adin, DVM, DACVIM (Cardiology)
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Raleigh, NC 27607
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From: Rotstein, David </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0A3B17EBFCF14A6CB8E94F322906BADD-DROTSTEI>
To: Jones, Jennifer L; Peloquin, Sarah
Sent: 8/16/2018 6:40:19 PM
Subject: RE: a few NCSU cases

We already did that!

Must be something else then.

David Rotstein, DVM, MPVM, Dipl. ACVP
CVM Vet-LIRN Liaison
CVM OSC/DC/CERT
7519 Standish Place
240-506-6763 (BB)



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From: Jones, Jennifer L
Sent: Thursday, August 16, 2018 2:39 PM
To: Rotstein, David <David.Rotstein@fda.hhs.gov>; Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Subject: RE: a few NCSU cases

B5

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Rotstein, David
Sent: Thursday, August 16, 2018 2:25 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Subject: FW: a few NCSU cases

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B6

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From: Jones, Jennifer L </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0f6ca12eaa9348959a4cbb1e829af244-Jennifer.Jo>
To: 'Freeman, Lisa'; Darcy Adin
CC: Joshua A Stern; [REDACTED] Rotstein, David
Sent: 8/16/2018 7:02:05 PM
Subject: RE: a few NCSU cases

Thank you, Lisa; [REDACTED] **B5**

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Freeman, Lisa [mailto:Lisa.Freeman@tufts.edu]
Sent: Thursday, August 16, 2018 2:18 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Darcy Adin <dbadin@ncsu.edu>
Cc: Joshua A Stern <jstern@ucdavis.edu>; [REDACTED] Rotstein, David <David.Rotstein@fda.hhs.gov>
Subject: RE: a few NCSU cases

Hi Jen
[REDACTED] **B5** Just want to be sure we get what you're looking for.
We appreciate your putting this together. This will be helpful
Thanks
Lisa

From: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Sent: Thursday, August 16, 2018 8:13 AM
To: Freeman, Lisa <lisa.freeman@tufts.edu>; Darcy Adin <dbadin@ncsu.edu>
Cc: Joshua A Stern <jstern@ucdavis.edu>; [REDACTED] Rotstein, David <David.Rotstein@fda.hhs.gov>
Subject: RE: a few NCSU cases

Good morning everyone,
Here's our Vet-LIRN rapid necropsy document.
Take care,
Jen

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



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Sent: Wednesday, August 15, 2018 2:49 PM
To: 'Freeman, Lisa' <Lisa.Freeman@tufts.edu>; Darcy Adin <dbadin@ncsu.edu>
Cc: Joshua A Stern <jstern@ucdavis.edu>; [REDACTED] **B6**
Subject: RE: a few NCSU cases

Thank you, Darcy! We'll be on the lookout for the cases.

Jennifer Jones, DVM
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Cc: Joshua A Stern <jsstern@ucdavis.edu>

[Redacted] B6

Subject: RE: a few NCSU cases

That's really interesting, Darcy!

I wonder [Redacted]

B5

Thanks for sharing

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From: Darcy Adin <dbadin@ncsu.edu>

Sent: Tuesday, August 14, 2018 8:00 PM

To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>

Cc: Freeman, Lisa <lisa.freeman@tufts.edu>; Joshua A Stern <jsstern@ucdavis.edu>

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Darcy

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Darcy B. Adin, DVM, DACVIM (Cardiology)
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NC State Veterinary Hospital
1060 William Moore Drive
Raleigh, NC 27607
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From: Rotstein, David </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0A3B17EBFCF14A6CB8E94F322906BADD-DROTSTEI>
To: Jones, Jennifer L; Peloquin, Sarah
Sent: 8/16/2018 7:03:20 PM
Subject: RE: a few NCSU cases

If the question is why:

B5

B5

David Rotstein, DVM, MPVM, Dipl. ACVP
CVM Vet-LIRN Liaison
CVM OSC/DC/CERT
7519 Standish Place
240-506-6763 (BB)



This e-mail message is intended for the exclusive use of the recipient(s) named above. It may contain information that is protected, privileged, or confidential, and it should not be disseminated, distributed, or copied to persons not authorized to receive such information. If you are not the intended recipient, any dissemination, distribution, or copying is strictly prohibited. If you think you received this e-mail message in error, please e-mail the sender immediately at david.rotstein@fda.hhs.gov.

From: Jones, Jennifer L
Sent: Thursday, August 16, 2018 2:39 PM
To: Rotstein, David <David.Rotstein@fda.hhs.gov>; Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Subject: RE: a few NCSU cases

B5

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Rotstein, David
Sent: Thursday, August 16, 2018 2:25 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Subject: FW: a few NCSU cases

Assuming this is about location.

I'd suggest two sites:

B5

B5

But I think it's worth considering.

David Rotstein, DVM, MPVM, Dipl. ACVP
CVM Vet-LIRN Liaison
CVM OSC/DC/CERT
7519 Standish Place
240-506-6763 (BB)



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--
Darcy B. Adin, DVM, DACVIM (Cardiology)
Clinical Assistant Professor of Cardiology
North Carolina State University
NC State Veterinary Hospital
1060 William Moore Drive
Raleigh, NC 27607
919-513-6032

From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
To: Jones, Jennifer L
Sent: 8/16/2018 7:06:19 PM
Subject: RE: a few NCSU cases

Hi Jen
I wonder if we got the final version. See below
Thanks, Lisa

B5

From: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Sent: Thursday, August 16, 2018 3:02 PM
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Subject: RE: a few NCSU cases

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B5

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 **FDA** U.S. FOOD & DRUG
ADMINISTRATION



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From: Jones, Jennifer L </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0f6ca12eaa9348959a4cbb1e829af244-Jennifer.Jo>
To: 'Freeman, Lisa'
Sent: 8/16/2018 7:11:52 PM
Subject: RE: a few NCSU cases

Ah...my mistake. Thank you for catching this. I'll resend. J

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Freeman, Lisa [mailto:Lisa.Freeman@tufts.edu]
Sent: Thursday, August 16, 2018 3:06 PM
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To: 'Freeman, Lisa'; 'Darcy Adin'
CC: 'Joshua A Stern'; [REDACTED] B6 Rotstein, David
Sent: 8/16/2018 7:12:22 PM
Subject: RE: a few NCSU cases
Attachments: 800.267-Vet-LIRN Rapid Necropsy-DCM-v7.pdf

Updated with specifications on Frozen skeletal muscle to obtain. Thank you, Lisa!

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Jones, Jennifer L
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To: Jones, Jennifer L; Peloquin, Sarah
Sent: 9/14/2018 1:53:05 PM
Subject: RE: Cardiomyopathy Heart Dissection Data Record.docx

Thanks!!!

I think by the week after next, [REDACTED] B5

David Rotstein, DVM, MPVM, Dipl. ACVP
CVM Vet-LIRN Liaison
CVM OSC/DC/CERT
7519 Standish Place
240-506-6763 (BB)



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From: Jones, Jennifer L
Sent: Friday, September 14, 2018 9:48 AM
To: Rotstein, David <David.Rotstein@fda.hhs.gov>; Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Subject: RE: Cardiomyopathy Heart Dissection Data Record.docx

Filed here: <F:\6-CASES\800.267-EON-Multi-DCM-Cluster\3-Testing\6-Necropsy>

Looks great, Dave!

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Rotstein, David
Sent: Wednesday, September 05, 2018 10:41 AM
To: Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Cc: Rotstein, David <David.Rotstein@fda.hhs.gov>
Subject: Cardiomyopathy Heart Dissection Data Record.docx

Jen and Sarah,

Here is the [REDACTED] B5

thanks

From: Jones, Jennifer L </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0F6CA12EAA9348959A4CBB1E829AF244-JENNIFER.JO>
To: Gaffney, Dana
CC: Reimschuessel, Renate
Sent: 8/5/2019 12:17:08 PM
Subject: RE: Material Transfer Agreements - pending one with

Thank you, Dana.

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Gaffney, Dana
Sent: Monday, August 05, 2019 7:35 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Cc: Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Subject: RE: Material Transfer Agreements - pending one with

Thanks, Jennifer. I pulled her title info from UC Davis website, so hopefully it is correct on the attached.

Dana

From: Jones, Jennifer L
Sent: Monday, August 05, 2019 7:03 AM
To: Gaffney, Dana <Dana.Gaffney@fda.hhs.gov>
Cc: Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Subject: RE: Material Transfer Agreements - pending one with

Thank you, Dana. Andrea Fascetti is the PI on our UC Davis contract. I believe it may be B6 (see attached).

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Gaffney, Dana
Sent: Friday, August 02, 2019 11:07 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Cc: Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Subject: RE: Material Transfer Agreements - pending one with

Hey Jennifer,

I just got the signed coversheet for this back from Neal, and was preparing the finalized MTA for you, but wanted to confirm—Andrea Fascetti should be listed as the authorizing official for UC Davis, correct? If so, I can make that update and send it back to you for execution.

Thanks!
Dana

From: Jones, Jennifer L
Sent: Wednesday, July 31, 2019 7:21 AM
To: Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>; Bataller, Neal <Neal.Bataller@fda.hhs.gov>; Gaffney, Dana <Dana.Gaffney@fda.hhs.gov>
Cc: McDermott, Patrick <Patrick.McDermott@fda.hhs.gov>; Myers, Michael J <Michael.Myers@fda.hhs.gov>
Subject: RE: Material Transfer Agreements - pending one with

Thank you very much for moving this forward, Dana. I'm sorry for any confusion on our end.

Here is the contact for UC Davis contract (have the data we want to share).

Andrea Fascetti ajfascetti@ucdavis.edu
University of California, Davis
School of Veterinary Medicine
944 Garrod Dr.
Davis, CA 95616

Here are the contacts for recipients of the data we want to share:

Joshua Stern jsstern@ucdavis.edu
B6 _____@ucdavis.edu
University of California, Davis
School of Veterinary Medicine
944 Garrod Dr.
Davis, CA 95616

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Reimschuessel, Renate
Sent: Tuesday, July 30, 2019 12:23 PM
To: Bataller, Neal <Neal.Bataller@fda.hhs.gov>; Gaffney, Dana <Dana.Gaffney@fda.hhs.gov>
Cc: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; McDermott, Patrick <Patrick.McDermott@fda.hhs.gov>; Myers, Michael J <Michael.Myers@fda.hhs.gov>
Subject: RE: Material Transfer Agreements - pending one with

Will do – Jen – can you pls fill out the form if you don't have one already and get the contact info

Renate Reimschuessel V.M.D. Ph.D. Director Vet-LIRN
Phone 1-240-402-5404
Fax 301-210-4685
<http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>

From: Bataller, Neal
Sent: Tuesday, July 30, 2019 12:22 PM
To: Gaffney, Dana <Dana.Gaffney@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Cc: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; McDermott, Patrick <Patrick.McDermott@fda.hhs.gov>; Myers, Michael J <Michael.Myers@fda.hhs.gov>
Subject: RE: Material Transfer Agreements - pending one with

Might you provide Dana with the correct coversheet? I'm not sure if I can provide the most recent one.

From: Gaffney, Dana
Sent: Tuesday, July 30, 2019 12:20 PM
To: Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Cc: Bataller, Neal <Neal.Bataller@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: RE: Material Transfer Agreements - pending one with

Hi Renate,

That is correct that MTAs, RCAs, etc. are signed at the office level. So, once I get the coversheet, this would be appropriate for Neal to sign. As for pending items –

B5

B5

Dana

From: Reimschuessel, Renate
Sent: Tuesday, July 30, 2019 12:13 PM
To: Gaffney, Dana <Dana.Gaffney@fda.hhs.gov>
Cc: Bataller, Neal <Neal.Bataller@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: Material Transfer Agreements - pending one with

Dana

B5

Our OR SOP states as follows (attached)

5.1.2. MTAs, UBMTAs, DTAs, CDAs, publishing agreements, copyright agreements, STAs, NDAs, LOIs and LOSs: The appropriate DD/PD and DDOR must both concur on processing of these by affirming that these particular technology transfer agreements are advantageous to CVM. In addition, management must verify that MTAs, UBMTAs, and DTAs (a) have minimal associated costs (e.g., sample prep, shipping) for items being sent by OR or (b) are related to a previously approved research protocol or concept paper for items being received by OR. For CDAs, publishing agreements, copyright agreements, NDAs, and STAs, management must verify the agreements are advantageous to CVM. For LOIs and LOSs, OR management, the SAG, and the SRC must verify that the proposed efforts are mission related and customer supported; the normal process for design, submission, approval and prioritization (DSAP) for proposed research collaborations will be followed (see OPS-003, Concept Paper Design, Submission, Approval, and Prioritization Process).

We are actually only sending data, no samples.

B5

Jen prepared a timeline for me – this has been hanging a long time.

2/13/2019-We received Mary Allen concurrence and forwarded to Dana Gaffney for Concurrence. As of 5/6/2019, RR asked Dana Gaffney if we had any action items on our end to get it completed.

DG requested the contract for UC Davis and Jen forwarded to DG on 5/7.

On 5/14, Jen emailed Mary Allen asking if there were any updates/action items on our end for the MTA

B5

Thanks

Renate Reimschuessel V.M.D. Ph.D.

Director: Vet-LIRN

(Veterinary Laboratory Investigation and Response Network)

Center For Veterinary Medicine, FDA,
8401 Muirkirk Road, Laurel, MD 20708
Phone 1-240-402-5404 Fax 301-210-4685
EMAIL : renate.reimschuessel@fda.hhs.gov

Vet-LIRN

<http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>

Phish-Pharm

<http://www.fda.gov/AnimalVeterinary/ScienceResearch/ToolsResources/Phish-Pharm/default.htm>

Aquaculture

<http://www.fda.gov/AnimalVeterinary/ScienceResearch/ResearchAreas/ucm130892.htm>

From: [B6]
Sent: Friday, February 2, 2018 10:41 AM
To: Jones, Jennifer L
Cc: [B6]
Subject: Re: Vet-LIRN request for Metals Testing (800.218)

Follow Up Flag: Follow up
Flag Status: Flagged

Jennifer

WADDL can accept the samples.

All, these would be billed to the VetLIRN infrastructure account.

[B6]

B6

On Feb 2, 2018, at 4:10 AM, Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov> wrote:

Good morning [B6]

We have 5 commercial dog food samples we'd like to test for:

- Selenium, Cobalt, Calcium, Phosphorous, Magnesium, Copper, Iron, and Zinc

We received reports of dogs developing dilated cardiomyopathy after consuming these foods-often a grainfree diet with a chicken/kangaroo and/or lentil based diet.

Please let me know if you accept, and I'll send the samples Monday. Please plan to bill the infrastructure grant.

Please also report the results on a dry matter basis.

Thank you kindly and have a nice weekend,

Jen

Jennifer L. A. Jones, DVM

Veterinary Medical Officer
U.S. Food & Drug Administration
Center for Veterinary Medicine
Office of Research
Veterinary Laboratory Investigation and Response Network (Vet-LIRN)
8401 Muirkirk Road, G704

Laurel, Maryland 20708
new tel: 240-402-5421
fax: 301-210-4685
e-mail: jennifer.jones@fda.hhs.gov
Web: <http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>
<image001.png> <image004.png>

From: [REDACTED] **B6**
To: [REDACTED] **B6**; Jones, Jennifer L
CC: [REDACTED] **B6**
Sent: 2/16/2018 11:58:11 PM
Subject: RE: Vet-LIRN request for Metals Testing (800.218)

This case was logged yesterday as WADDL 2018-2078. Samples had been shipped directly to ASL.

B6

From: [REDACTED] **B6**
Sent: Friday, February 02, 2018 7:41 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
[REDACTED] **B6**
Subject: Re: Vet-LIRN request for Metals Testing (800.218)

Jennifer

WADDL can accept the samples.

All, these would be billed to the VetLIRN infrastructure account.

B6

B6

On Feb 2, 2018, at 4:10 AM, Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov> wrote:

Good morning [REDACTED] **B6** and [REDACTED] **B6**

We have 5 commercial dog food samples we'd like to test for:

· Selenium, Cobalt, Calcium, Phosphorous, Magnesium, Copper, Iron, and Zinc

We received reports of dogs developing dilated cardiomyopathy after consuming these foods-often a grainfree diet with a chicken/kangaroo and/or lentil based diet.

Please let me know if you accept, and I'll send the samples Monday. Please plan to bill the infrastructure grant.

Please also report the results on a dry matter basis.

Thank you kindly and have a nice weekend,
Jen

Jennifer L. A. Jones, DVM

Veterinary Medical Officer

U.S. Food & Drug Administration

Center for Veterinary Medicine

Office of Research

Veterinary Laboratory Investigation and Response Network (Vet-LIRN)

8401 Muirkirk Road, G704

Laurel, Maryland 20708

new tel: 240-402-5421

fax: 301-210-4685

e-mail: jennifer.jones@fda.hhs.gov

Web: <http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>

<[image001.png](#)> <[image004.png](#)>

From: Jones, Jennifer L </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0f6ca12eaa9348959a4cbb1e829af244-Jennifer.Jo>
To: [REDACTED] B6
Sent: 3/28/2018 6:47:27 PM
Subject: RE: Vet-LIRN request for Metals Testing (800.218)
Attachments: 800.218-ID-metals results.pdf

Good afternoon [REDACTED] B6

I just want to confirm, [REDACTED] B5

[REDACTED] B5

Thank you kindly,
Jen

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: [REDACTED] B6

Sent: Friday, February 02, 2018 12:47 PM

To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; [REDACTED] B6

Subject: RE: Vet-LIRN request for Metals Testing (800.218)

Dear Jen-

I echo [REDACTED] B6 reply; we'll look for the samples early next week.

Best regards,

[REDACTED] B6

[REDACTED] B6

From: Jones, Jennifer L [mailto:Jennifer.Jones@fda.hhs.gov]

Sent: Friday, February 02, 2018 4:11 AM

To: [REDACTED] B6

Subject: Vet-LIRN request for Metals Testing (800.218)

Good morning [REDACTED] B6

We have 5 commercial dog food samples we'd like to test for:

· Selenium, Cobalt, Calcium, Phosphorous, Magnesium, Copper, Iron, and Zinc

We received reports of dogs developing dilated cardiomyopathy after consuming these foods-often a grainfree

diet with a chicken/kangaroo and/or lentil based diet.

Please let me know if you accept, and I'll send the samples Monday. Please plan to bill the infrastructure grant.

Please also report the results on a dry matter basis

Thank you kindly and have a nice weekend,

Jen

Jennifer L. A. Jones, DVM

Veterinary Medical Officer

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8401 Muirkirk Road, G704

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fax: 301-210-4685

e-mail: jennifer.jones@fda.hhs.gov

Web: <http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>



From: [redacted] B6
To: Jones, Jennifer L; [redacted] B6
Sent: 3/28/2018 6:59:01 PM
Subject: RE: Vet-LIRN request for Metals Testing (800.218)

Hi Jen-

You are correct — [redacted] B5
[redacted] B5 If you have additional questions, please don't hesitate to contact me.

Best regards,

[redacted] B6

[redacted] B6

From: Jones, Jennifer L [mailto:Jennifer.Jones@fda.hhs.gov]
Sent: Wednesday, March 28, 2018 11:48 AM
To: [redacted] B6
Subject: RE: Vet-LIRN request for Metals Testing (800.218)

Good afternoon Steve,
I just want to confirm, [redacted] B5
[redacted] B5

Thank you kindly,
Jen

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: [redacted] B6
Sent: Friday, February 02, 2018 12:47 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov> [redacted] B6
Subject: RE: Vet-LIRN request for Metals Testing (800.218)

Dear Jen-

I echo [redacted] B6 eply; we'll look for the samples early next week.

Best regards,

B6

B6

From: Jones, Jennifer L [<mailto:Jennifer.Jones@fda.hhs.gov>]

Sent: Friday, February 02, 2018 4:11 AM

To: **B6**

Subject: Vet-LIRN request for Metals Testing (800.218)

Good morning **B6**

We have 5 commercial dog food samples we'd like to test for:

· Selenium, Cobalt, Calcium, Phosphorous, Magnesium, Copper, Iron, and Zinc

We received reports of dogs developing dilated cardiomyopathy after consuming these foods-often a grainfree diet with a chicken/kangaroo and/or lentil based diet.

Please let me know if you accept, and I'll send the samples Monday. Please plan to bill the infrastructure grant.

Please also report the results on a dry matter basis

Thank you kindly and have a nice weekend,

Jen

Jennifer L. A. Jones, DVM

Veterinary Medical Officer

U.S. Food & Drug Administration

Center for Veterinary Medicine

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Veterinary Laboratory Investigation and Response Network (Vet-LIRN)

8401 Muirkirk Road, G704

Laurel, Maryland 20708

new tel: 240-402-5421

fax: 301-210-4685

e-mail: jennifer.jones@fda.hhs.gov

Web: <http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>



From: Jones, Jennifer L </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0f6ca12eaa9348959a4cbb1e829af244-Jennifer.Jo>
To: [B6] [B6] [B6]
Sent: 3/28/2018 7:00:10 PM
Subject: RE: Vet-LIRN request for Metals Testing (800.218)

Excellent, thank you for the quick reply.

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: [B6] [B6] [mailto:[B6]]
Sent: Wednesday, March 28, 2018 2:59 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov> [B6] [B6]
Subject: RE: Vet-LIRN request for Metals Testing (800.218)

Hi Jen-

You are correct – our [B5] value. [B5] [B5]. If you have additional questions, please don't hesitate to contact me.

Best regards,

[B6]

[B6]

www.webpages.uidaho.edu/asl

From: Jones, Jennifer L [mailto:Jennifer.Jones@fda.hhs.gov]
Sent: Wednesday, March 28, 2018 11:48 AM
To: [B6] [B6] [B6]
Subject: RE: Vet-LIRN request for Metals Testing (800.218)

Good afternoon [B6]
I just want to confirm, [B5] [B5] [B5]
Thank you kindly,
Jen

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: [B6] ([B6] [mailto:[B6]])
Sent: Friday, February 02, 2018 12:47 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; [B6] <[B6]>
Subject: RE: Vet-LIRN request for Metals Testing (800.218)

Dear Jen-

I echo [B6] reply; we'll look for the samples early next week.

Best regards,

[B6]

[B6]

www.webpages.uidaho.edu/asl

From: Jones, Jennifer L [mailto:Jennifer.Jones@fda.hhs.gov]
Sent: Friday, February 02, 2018 4:11 AM
To: [B6]; [B6] ([B6])
Subject: Vet-LIRN request for Metals Testing (800.218)

Good morning [B6] and [B6]

We have 5 commercial dog food samples we'd like to test for:

- Selenium, Cobalt, Calcium, Phosphorous, Magnesium, Copper, Iron, and Zinc

We received reports of dogs developing dilated cardiomyopathy after consuming these foods-often a grainfree diet with a chicken/kangaroo and/or lentil based diet.

Please let me know if you accept, and I'll send the samples Monday. Please plan to bill the infrastructure grant.

Please also report the results on a dry matter basis

Thank you kindly and have a nice weekend,

Jen

Jennifer L. A. Jones, DVM

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8401 Muirkirk Road, G704
Laurel, Maryland 20708
new tel: 240-402-5421
fax: 301-210-4685
e-mail: jennifer.jones@fda.hhs.gov



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EXPERT
REVIEWS

Nutritional and micronutrient determinants of idiopathic dilated cardiomyopathy: diagnostic and therapeutic implications

Expert Rev. Cardiovasc. Ther. 9(9), 1161–1170 (2011)

Victor Marinescu¹ and
Peter A McCullough²

¹Department of Medicine, William
Beaumont Hospital, Royal Oak,
MI 48073, USA

²St John Providence Health System,
Providence Park Heart Institute, Novi,
MI 48374, USA

¹Author for correspondence:

Tel.: +1 248 885 4197

Fax: +1 248 453 5879

victor.marinescu@beaumont.edu

Idiopathic dilated cardiomyopathy (IDCM) is the term used to describe a group of myocardial diseases of unknown cause whose common clinical presentation is heart failure. The prevalence of IDCM is estimated to be between 7 and 13% of patients with systolic heart failure. Throughout medical history, several nutrient-deficient states have been identified as the root cause of IDCMs, Keshan's disease being one such example, where selenium deficiency-induced heart failure is now well documented. This raises the question of whether a micro- or macro-nutrient imbalance can provide the milieu for inefficient energy expenditure and cardiac metabolism in the context of IDCMs, either causing or exacerbating the condition. To date, there is insufficient evidence in the literature to support this theory, although numerous studies suggest a link between nutrient deficiencies, inefficient energy expenditure and subsequent heart failure. Given the unique metabolic needs of the failing heart, the role of micronutrient testing and supplementation in IDCMs warrants further well-designed studies.

KEYWORDS: heart failure • idiopathic dilated cardiomyopathy • macrominerals • metabolic cardiology
• micronutrients • multinutrient supplementation • vitamins

B4

B4

B4

B4

B4

B4

B4

B4

B4

B4

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From: Jones, Jennifer L </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0f6ca12eaa9348959a4cbb1e829af244-Jennifer.Jo>
To: [REDACTED] B6
Sent: 2/2/2018 12:10:44 PM
Subject: Vet-LIRN request for Metals Testing (800.218)

Good morning [REDACTED] B6

We have 5 commercial dog food samples we'd like to test for:

- Selenium, Cobalt, Calcium, Phosphorous, Magnesium, Copper, Iron, and Zinc

We received reports of dogs developing dilated cardiomyopathy after consuming these foods-often a grainfree diet with a chicken/kangaroo and/or lentil based diet.

Please let me know if you accept, and I'll send the samples Monday. Please plan to bill the infrastructure grant.

Please also report the results on a dry matter basis.

Thank you kindly and have a nice weekend,

Jen

Jennifer L. A. Jones, DVM

Veterinary Medical Officer

U.S. Food & Drug Administration

Center for Veterinary Medicine

Office of Research

Veterinary Laboratory Investigation and Response Network (Vet-LIRN)

8401 Muirkirk Road, G704

Laurel, Maryland 20708

new tel: 240-402-5421

fax: 301-210-4685

e-mail: jennifer.jones@fda.hhs.gov

Web: <http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>



From: Peloquin, Sarah </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8607f880df2b494aa639e6d9a3874132-Sarah.Peloq>
To: Carey, Lauren; Palmer, Lee Anne; Rotstein, David
Sent: 10/24/2018 11:56:18 AM
Subject: RE: 800.267 DCM -- did we get reports from these cases?

Thanks so much for checking—Lisa Freeman was just following up so I'll ask her to submit the reports again if she already hasn't.

From: Carey, Lauren
Sent: Wednesday, October 24, 2018 7:54 AM
To: Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>
Subject: RE: 800.267 DCM -- did we get reports from these cases?

I don't see them. Jen asked about **B6** back in August and we hadn't received it. I don't see where any **B6** report has come in since then. We can't search well by names, so if the reporters have the ICSR #, we can try to look that way.

We have not received any new PFR reports since the weekend. EON is not delivering reports to us, so if they're new reports they are probably trapped somewhere within the bowels of the internet with all the other reports.

I'll keep an eye out.

Thanks,
Lauren.

From: Peloquin, Sarah
Sent: Wednesday, October 24, 2018 7:49 AM
To: Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>
Subject: 800.267 DCM -- did we get reports from these cases?

Did we receive PFR reports from any of the following cases from Tufts?

• **B6**

Let me know. Thanks!!

Sarah K. Peloquin, DVM
Veterinary Medical Officer

U.S. Food & Drug Administration
Center for Veterinary Medicine
Veterinary Laboratory Investigation and Response Network
tel: 240-402-1218
fax: 301-210-4685
e-mail: sarah.peloquin@fda.hhs.gov



From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
To: Peloquin, Sarah
CC: Jones, Jennifer L
Sent: 10/24/2018 12:05:53 PM
Subject: RE: question on fda pet food reports re dcm

Hi Sarah

That's strange because I even submitted food on [B6]
If there was a problem, let me know and I'll get all 3 of those submitted.
Have a few more new ones to submit this week as well
Thanks
Lisa

Lisa M. Freeman, DVM, PhD, DACVN
Board Certified Veterinary Nutritionist™
Professor
Cummings School of Veterinary Medicine
Friedman School of Nutrition Science and Policy
Tufts Clinical and Translational Science Institute
Tufts University
www.petfoodology.org

From: Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Sent: Wednesday, October 24, 2018 7:46 AM
To: Freeman, Lisa <lisa.freeman@tufts.edu>
Cc: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: RE: question on fda pet food reports re dcm

Hi Lisa,

I see that we have records for [B6] and [B6] from this August, but no reports. I don't see anything for [B6] I'll double check with my team and get back to you.

Thanks for all of your help!
Sarah

From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
Sent: Sunday, October 21, 2018 6:40 PM
To: Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Subject: question on fda pet food reports re dcm

Dear Sarah

I'm trying to confirm whether the following cases were received by the FDA. I'm nearly positive I reported them but don't see them in my list of submitted cases on the FDA reporting portal. Could you confirm?

• [B6]
•
•

Many thanks
Lisa

Lisa M. Freeman, DVM, PhD, DACVN
Board Certified Veterinary Nutritionist™

Professor
Cummings School of Veterinary Medicine
Friedman School of Nutrition Science and Policy
Tufts Clinical and Translational Science Institute
Tufts University
www.petfoodology.org

From: Freeman, Lisa
Sent: Saturday, September 15, 2018 10:28 AM
To: Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Subject: RE: 800.267 FDA Case Investigation for [B6] (EON-364568) and [B6] (EON-365002)

Hi Sarah,
[B6] mom is fine with you contacting her. Email is best for initial contact
[B6]

Please let me know if you need more info on this case
Thanks
Lisa

Lisa M. Freeman, DVM, PhD, DACVN
Board Certified Veterinary Nutritionist™
Professor
Cummings School of Veterinary Medicine
Friedman School of Nutrition Science and Policy
Tufts Clinical and Translational Science Institute
Tufts University
www.petfoodology.org

From: Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Sent: Friday, September 14, 2018 9:51 AM
To: Freeman, Lisa <lisa.freeman@tufts.edu>
Cc: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: RE: 800.267 FDA Case Investigation for [B6] (EON-364568) and [B6] (EON-365002)

Hi Lisa, thanks so much for passing those along. Sorry for the multiple emails—it looks like we've received everything we need for these two.

Please let me know when you confirm permission to contact [B6] owner.

Thanks!
Sarah

From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
Sent: Friday, September 14, 2018 9:44 AM
To: Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Subject: RE: 800.267 FDA Case Investigation for [B6] (EON-364568) and [B6] (EON-365002)

Hi Sarah
I sent additional records on [B6] directly to Dr. Jones since there were too many to upload individually. I think that should have everything you need on him but if not, please let me know
The owner is happy to talk to you.

Attached are RDVM records on [B6] I also have a food sample for her. I'll need to confirm it's ok to

contact
Thanks
Lisa

Lisa M. Freeman, DVM, PhD, DACVN
Board Certified Veterinary Nutritionist™
Professor
Cummings School of Veterinary Medicine
Friedman School of Nutrition Science and Policy
Tufts Clinical and Translational Science Institute
Tufts University
www.petfoodology.org

From: Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Sent: Friday, September 14, 2018 9:36 AM
To: Freeman, Lisa <lisa.freeman@tufts.edu>
Subject: 800.267 FDA Case Investigation for [B6] (EON-364568) and [B6] EON-365002)

Good morning Dr. Freeman,

Thank you for submitting a few more consumer complaints to FDA!

As part of our investigation, we'd like to request:

- **Full Medical Records**
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Sarah K. Peloquin, DVM
Veterinary Medical Officer

U.S. Food & Drug Administration
Center for Veterinary Medicine
Veterinary Laboratory Investigation and Response Network
tel: 240-402-1218
fax: 301-210-4685
e-mail: sarah.peloquin@fda.hhs.gov



From: Peloquin, Sarah </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8607f880df2b494aa639e6d9a3874132-Sarah.Peloq>
To: 'Freeman, Lisa'
CC: Jones, Jennifer L
Sent: 10/24/2018 2:28:43 PM
Subject: RE: question on fda pet food reports re dcm

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To: Peloquin, Sarah
CC: Jones, Jennifer L
Sent: 10/24/2018 2:56:27 PM
Subject: Re: question on fda pet food reports re dcm
Attachments: image001.png; image002.png

Will do although may not be till next week
Thanks. Lisa

Sent from my iPhone

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<image001.png> <image002.png>

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Wonderful! Two of them have already been forwarded to me (**B6**), so I'll keep an eye out for

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Veterinary Laboratory Investigation and Response Network
tel: 240-402-1218
fax: 301-210-4685
e-mail: sarah.peloquin@fda.hhs.gov





Foster Hospital for Small Animals

55 Willard Street
North Grafton, MA 01536
(508) 839-5395

All Medical Records

Client: **B6**
Address: **B6**

Patient: **B6**
Breed: Golden Retriever Cross
DOB: **B6**

Species: Canine
Sex: Male
(Neutered)

Home Phone: **B6**
Work Phone: () -
Cell Phone: **B6**

Referring Information

B6

Client: **B6**
Patient: **B6**

Initial Complaint:

Initial Complaint:

New, DCM

SOAP Text **B6** 12:07PM **B6**

Disposition/Recommendations

Client:
Patient:

B6

Client: **B6**
Patient: **B6**



Foster Hospital for Small Animals

55 Willard Street
North Grafton, MA 01536
(508) 839-5395

Client: **B6**
Veterinarian:
Patient ID: **B6**
Visit ID:

Patient:	B6
Species:	Canine
Breed:	Golden Retriever Cross
Sex:	Male (Neutered)
Age:	B6 Years Old

Lab Results Report

Accession ID:			
Test	Results	Reference Range	Units



Client: **B6**
Patient: **B6**

rDVM: **B6** referral, labs, echo

IDEX

B6

B6

IMMEDIATE ANIMAL PROGRAM
OF CALIFORNIA
4571 BUCKINGHAM AVE STE 1111
DUBLIN, CA 94568
925 473 2000

B6

B6



Client: **B6**
Patient: **B6**

rDVM: **B6** referral, labs, echo

IDEX

B6

B6

B6

Chemistry


* Some of the test results are significant either in absolute values

B6 **B6**

Page 2 of 3

Client: **B6**
Patient: **B6**

rDVM: **B6** referral, labs, echo

 **Tufts UNIVERSITY**
Cummings School of Veterinary Medicine
TUFTS UNIVERSITY
Cummings School of Veterinary Medicine
Henry & Lois Foster Hospital for Small Animals
200 Westboro Road, Route 30
North Grafton, MA 01536
508-833-5393

Service to Which Referred	Appointment Date	Time
OWNER INFORMATION		
Name: B6	Daytime Phone: B6	Evening Phone:
Address: B6	City: B6	State: B6 Zip Code: B6
Email Address: B6		
PATIENT INFORMATION		
Registered Name/ID: B6	Species: <i>K9</i>	Breed: <i>Goldenoodle</i> Sex: <i>ma</i> Age: B6
CASE HISTORY		
Chief Concern/Provisional Diagnosis: <i>Dilated Cardiomyopathy.</i>		
<i>referral for HOLTER MONITOR/consult w/ cardiologist</i>		
Vaccination History: <i>Bord 11-5-18; Lyme 11-5-18; Lepto 3-20-19; DHPP 3-27-20; Rabies 3-20-2</i> <i>(see date)</i>		
Other History: <i>Dilated Cardiomyopathy</i> <i>2/6 Systolic murmur</i>		
Diagnostic Test Results (please attach if possible): <i>Echo 2017, 2018</i> <i>Chd 2019, 2018, 2017, BPs</i>		
Are Radiographs Enclosed? <input checked="" type="checkbox"/> <input type="checkbox"/>		

B6

Name: B6	Clinic/Hospital: B6	
Phone: B6	Fax: B6	Email: B6
Address: B6	City: B6	State: B6 Zip Code: B6
Preferred means of communicating with you about this case? Phone <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/>		

Client:
Patient:

B6

rDVM

B6

referral, labs, echo

B6

B6

11/20/17 15:33:36 888-43 287 → 158264703 IL Laboratories 1 Page 001

B6

B6

B6

B6

B6

Account #0000

Order
Patient
Specimen
Brand
App
Order

FROM
APP

Preparation #
Accession #
Order serial
Ordered by
Reported

B6

158264703

B6

158264703

SENIOR PROFILE		CHEM 27 W/ SCMA	
Test		Result	
ALP		16 - 100 U/L	
ALT		10 - 37 U/L	
AST		10 - 35 U/L	
CREATINE KINASE		10 - 200 U/L	
GGT		0 - 13 U/L	H
AMYLASE		30 - 140 U/L	
LIPASE		17 - 70 U/L	L
ALBUMIN		3.7 - 5.1 g/dL	
TOTAL PROTEIN		6.0 - 7.6 g/dL	
GLOBULIN		2.4 - 4.0 g/dL	
TOTAL BILIRUBIN		0.2 - 0.7 mg/dL	
BILIRUBIN CONJUGATED		0.0 - 0.1 mg/dL	
BUN		8 - 21 mg/dL	
CREATININE		0.5 - 1.3 mg/dL	
CHOLESTEROL		121 - 240 mg/dL	
GLUCOSE		80 - 114 mg/dL	
CALCIUM		9.4 - 11.0 mg/dL	
PHOSPHORUS		2.5 - 6.1 mg/dL	
TGCO (BICARBONATE)		13 - 27 mmol/L	
CHLORIDE		108 - 118 mmol/L	
POTASSIUM		4.0 - 5.4 mmol/L	
SODIUM		142 - 152 mmol/L	
ALBUMIN RATIO		0.7 - 1.0	
BUN/CREATININE RATIO			
BILIRUBIN UNCONJUGATED		0.0 - 0.2 mg/dL	
NAK RATIO		0.8 - 2.7	
HEMOLYSIS INDEX			

B6

B6

B6

FINAL REPORT - CONTINUED ON NEXT PAGE

PAGE 1

Client: **B6**
Patient:

rDVM: **B6** referral, labs, echo

B6 → **B4** Page 802

Index of N. 1+, 2+ exhibits no significant effect on chemistry values.
LIPID INDEX **B6**
Index of N. 1+, 2+ exhibits no significant effect on chemistry values.
AMON GAP **B7** (11 - 28) mmol/L
SOMA **B1** (9 - 14) ug/L
B6
BOTH SOMA AND CREATININE ARE WITHIN THE REFERENCE INTERVAL which function is likely good. Evaluate a complete urinalysis and confirm there is no other evidence of kidney disease.

SENIOR PROFILE		CBC COMPREHENSIVE	
Test		Result	
WBC	B6	(4.8 - 17.8) K/L	
RBC		(6.26 - 8.70) M/L	
HGB		(13.4 - 20.7) g/L	
HCT		(38.5 - 54.5) %	
MCH		(100 - 110) fL	
MCHC		(318 - 364) g/L	
MCHD		(10.8 - 16.2) pg	
MCHD		(10.8 - 16.2) pg	
% RETICULOCYTE		%	
RETICULOCYTE		(10 - 110) K/L	
% NEUTROPHIL		%	
% LYMPHOCYTE		%	
% MONOCYTE		%	
% EOSINOPHIL		%	
% BASOPHIL		%	
PLATELET		(140 - 440) K/L	
REMARKS			
SLIDE REVIEWED MICROSCOPICALLY. NO PARASITES SEEN			
NEUTROPHIL	B6	(3940 - 12670) /uL	
LYMPHOCYTE		(1500 - 4800) /uL	
MONOCYTE		(130 - 1150) /uL	
EOSINOPHIL		(70 - 1400) /uL	
BASOPHIL		(0 - 100) /uL	

SENIOR PROFILE		URINALYSIS	
Test		Result	
COLLECTION METHOD	B6		
COLOR			
CLARITY			

B6

FINAL REPORT - CONTINUED ON NEXT PAGE
PAGE 2

Client: **B6**
Patient:

rDVM: **B6** referral, labs, echo

B6 **B6**

11/18/17 15:25:30 880-43... → **B6** | Page 883

SPECIFIC QUANTITY	
GLUCOSE	B6
BILIRUBIN	B6
KETONES	B6
Detection of trace ketones in patients who are normoglycemic or have negative urine glucose is non-specific and of limited clinical significance.	
BLOOD	
PH	B6
PROTEIN	
Protein test is performed and confirmed by the sulfosalicylic acid test.	
WBC	B6
RBC	B6
BACTERIA	B6
EPY CELL	B6
MUCIN	B6
CASTS	B6
CRYSTALS	B6
UROBILINOGEN	B6

SENSOR PROFILE T4	
Test	Result
T4	B6 1.0 - 4.0 ug/dL B6
Interpretive ranges: <1.0 Low 1.0-4.0 Normal >4.0 High 2.1-5.4 Therapeutic	

B6

B6

FINAL REPORT PAGE 3 OF 3

Client: **B6**
Patient: **B6**

rDVM: **B6** referral, labs, echo



B6

ECHOCARDIOGRAM REPORT

Date:	B6	Hospital:	B6	B6	DVM
Pet Name:	B6	Species:	Canine	Breed:	Goldenretriever
DOB:	B6 (8 y)	Sex:	M	Weight:	69.1 lb

History/Clinical presentation: **check echocardiogram for dilated cardiomyopathy. Doing well.**
Previous ultrasound on **B6** (Read **B6**)
Blood Pressure: 191/89 (104); 104/73 (104)

Imaging Measurements		Doppler Measurements	
Aortic diameter	cm	PV velocity	0.89 m/sec
Left atrial diameter	cm	AoV velocity	1.43 m/sec
L:Ao ratio		MR velocity	5.28 m/sec
IVS thickness	B6 cm	TR velocity	2.28 m/sec
LV wall thickness	cm		
LV diastolic dimension	cm		
LV systolic dimension	cm		
Fractional shortening	%		

B6

12/20/20

Continued on page 2.

Client: **B6**
Patient: **B6**

rDVM: **B6** referral, labs, echo

Page 1: **B6** echocardiogram report, continued.

ASSESSMENT:

1.) Dilated Cardiomyopathy - Idiopathic

RECOMMENDATIONS: There is a degree of progression since the last study with progressive systolic dysfunction and the development of mild enlargement of the left atrium. These findings remain consistent with actual Dilated Cardiomyopathy. This patient may continue to remain asymptomatic for an extended period of time, however he is at risk for exercise intolerance, weakness, lethargy, syncope, ventricular and atrial arrhythmias, development of congestive heart failure, and even passing away suddenly.

B6

Interpreted by: **B6** DVM, DACVIM (Cardiology)

Performed by: **B6** (RCC)

If you have any further questions or concerns regarding this case, please contact **B6** at: **B6**

Client: **B6**
Patient: **B6**

rDVM: **B6** referral, labs, echo

B6

ECHOCARDIOGRAM REPORT

Date:	B6	Hospital:	B6	B6	DVM
Pet Name:	B6	Species:	Canine	Breed:	Golden Doodle
DOB:	B6 (7 y)	Sex:	MM	Weight:	69.1 lb

History/Clinical presentation: New grade I/VI systolic murmur noted on PE, B/D/T.
Dog needs dental cleaning, T OK for anesthesia
Blood pressure: 165/93 (105); 161/61 (118); 145/69 (107)

Imaging Measurements		Doppler Measurements	
Aortic diameter	mm	PI velocity	m/sec
Left atrial diameter	mm	AOV velocity	m/sec
L:Ao ratio		MR velocity	m/sec
IVS thickness	mm	TR velocity	m/sec
LV wall thickness	mm		
LV diastolic dimension	mm		
LV systolic dimension	mm		
Fractional shortening	%		

B6

Continued on page 2.

Client: **B6**
Patient: **B6**

rDVM: **B6** referral, labs, echo

Page 2 **B6** echocardiogram report, continued.

ASSESSMENT:

1.) Dilated Cardiomyopathy - Idiopathic

RECOMMENDATIONS: Unfortunately, this patient's has myocardial failure of both the LV and RV enlargement. These findings are consistent with recent Dilated Cardiomyopathy. This patient may continue to remain asymptomatic for an extended period of time; however, he does have risk for exercise intolerance, weakness, lethargy, syncope, ventricular and atrial arrhythmias, development of congestive heart failure, and even passing away suddenly.



Interpreted by **B6**, DVM, DACVIM (Cardiology)

Performed by **B6**, RDMS

If you have any further questions or concerns regarding this case, please contact **B6** at **B6**

Client: **B6**
Patient: **B6**

IDEXX - BNP - 7/11/2018

Client: **B6**
Patient: **B6**
Species: **B6**
Sex: **B6**
Age: **B6**

Responsible Person: **B6**
Address: **B6**

Phone: **B6**
Fax: **B6**

Cardiac Panel - JAN 08
CARDIAC PANEL - JAN 08
CARDIAC PANEL - JAN 08

B6 **B6**

B6

Client:
Patient:

B6

Diet history 7/10/18

CARDIOLOGY DIET HISTORY FORM

Please answer the following questions about your pet

Pet's name: **B6** Owner's name: **B6** Today's date: 7-10-18

1. How would you describe your pet's appetite? (mark the point on the line below that best represents your pet's appetite)
Examples: Poor _____ Good _____ Excellent
Poor _____ Excellent

2. Have you noticed a change in your pet's appetite over the last 1-2 weeks? (check all that apply)
 Same about the same amount as usual Less than usual More than usual
 Seems to prefer different foods than usual Other _____

3. Over the last few weeks, has your pet (check one)
 Lost weight Gained weight Stayed about the same weight Don't know

4. Please list below ALL pet foods, people food, treats, snacks, dental chews, rawhides, and any other food item that your pet currently eats. Please include the brand, specific product, and flavor so we know exactly what your pet is eating.

Food (include specific product and flavor) Form Amount How often? Feeding schedule
(Examples are shown in the table - please provide enough detail that we could go to the store and buy the exact same food.)

Food (include specific product and flavor)	Form	Amount	How often?	Feeding schedule
Antico Dog Free Chicken, Lentil, & Sweet Potato Adult	dry	1/2 cup	twice	Jan 2018
95% lean hamburger	refrigerated	3 oz	1x/week	Jan 2018
Hydrolite original beef flavor	pow	2	1x/day	Aug 2018
Protein	pow	2 scoops	1x/week	Jan 2018
<u>Organ chicken</u>	<u>dry</u>	<u>1/2 cup</u>	<u>2x/day</u>	<u>4 months</u>
<u>Organ skin chicken</u>				
<u>Steamed chicken</u>				
<u>Greenies</u>				

*Any additional diet information can be listed on the back of this sheet.

5. Do you give any dietary supplements to your pet (for example: vitamins, glucosamine, fatty acids, or any other supplements)? Yes No If yes, please list which ones and give brand and amount:

	Brand/Concentration	Amount per day
Taurine	<u>Parula 250mg</u>	<u>3 per 12 hours</u>
Carters		
Antioxidants		
Multivitamin		
Fish oil	<u>Carters</u>	<u>1 tablet</u>
Coenzyme Q10		
Other (please list):		
Example: Vitamin C	<u>Nature's Bounty</u>	<u>300 mg tablets - 1 per day</u>

6. How do you administer pills to your pet?
 I do not give any medications
 I put them directly in my pet's mouth without food
 I put them in my pet's dog/cat food
 I put them in a Pill Pocket or similar product
 I put them in food (list food): crucif

Client: **B6**
Patient: **B6**

Vitals Results

B6	10:14:53 AM	Weight (kg)	30.1000
-----------	-------------	-------------	---------

Client: **B6**
Patient: **B6**

ECG from Cardio

B6

B6

8/16/2011 12:00 PM Page 8 of 8
FDA Center for Drug Evaluation and Research
FDA Center for Drug Evaluation and Research
FDA Center for Drug Evaluation and Research

B6

Client:
Patient:

B6

ECG from Cardio

B6

B6

10/01/2011 Page 1 of 1
FDA Center for
FDA Center for
FDA Center for

B6

Client: **B6**
Patient: **B6**

ECG from Cardio

B6

B6

10/01/2011
10:00:00 AM
Page 3 of 8
FDA (Division of Cardiovascular and
Respiratory Products)

B6

Client: **B6**
Patient: **B6**

ECG from Cardio

B6

B6

10/01/2014 Page 1 of 1
FDA/CDER/Office of the Chief
Medical Officer/Office of the
Chief of Staff

B6

Client:
Patient:

B6

ECG from Cardio

B6

B6

10:55:52 AM
TAFE Services (p)
Red Cross Blood Bank of the West
10/10/2019

B6

Client:
Patient:

B6

Patient History

B6	01:10 PM	Appointment
	04:29 PM	Appointment
	10:00 AM	UserForm
	10:14 AM	Vitals
	10:15 AM	Purchase
	10:49 AM	Treatment
	11:02 AM	Purchase
	11:11 AM	UserForm
	11:13 AM	UserForm
	11:31 AM	Purchase
	12:08 PM	Purchase
	03:13 PM	Email

B6

Cummings
Veterinary Medical Center
AT TUFTS UNIVERSITY

Forster Hospital for Small Animals
55 Willard Street
North Grafton, MA 01526
Telephone (508) 829-5395
Fax (508) 829-7951
<http://vetmed.tufts.edu/>

B6

B6

Male (Neutered)

Owner: Golden Retrievers Cross
Gold

B6

7/10/2018

Dear **B6**

Thank you for referring **B6** with their pet **B6**

Would we be able to see the echo images for this patient? The images can be emailed to us at cardiovet@tufts.edu

If you have any questions, or concerns, please contact us at 508-827-4988.

Thank you,

B6

DVM, DACVP (Cardiology)

NC State College of Veterinary Medicine

Veterinary Cardiac Genetics Laboratory

1060 William Moore Dr., RB 326
Raleigh, NC 27607
vcgl@lists.ncsu.edu
(919) 513-3314



To request swab collection kits, please visit:
<https://cvm.ncsu.edu/genetics/cheek-swab-request/>

Doberman Pinscher Dilated Cardiomyopathy (DCM) Genetic Testing

Dilated cardiomyopathy mutation (DCM) is a form of heart disease in the Doberman pinscher dog. It is an inherited disease, and our laboratory has identified two mutations responsible for the development of DCM. Dogs that are positive for both mutations are at the highest risk of developing DCM

Owner Name: **B6**

NCSU Doberman DCM1 (PDK4) Result: **Positive Heterozygous**

Dog's Name: **B6**

NCSU Doberman DCM2 Result: **Negative**

ID #: **B6**

Below is an explanation for each possible test result so you can better understand all the possible results and make informed breeding decisions:

Negative Result for both DCM1 and DCM2:	The absence of both mutations in a Doberman indicates that the risk of developing DCM is low. It is still possible for a dog to develop heart disease. However, a negative result for both DCM1 and DCM2 indicates that a dog does not have either mutation known to cause DCM.
Positive result for NCSU DCM1 only :	About 40% of dogs with this mutation will develop DCM. Dogs that are positive for only DCM1 will not necessarily develop significant heart disease.
Breeding recommendations:	Dogs are positive for DCM1 should NEVER be bred to a dog that is positive for NCSU DCM 2 since this will lead to dogs that are highest risk of developing DCM. Dogs that are positive homozygous for DCM1 should ideally not be bred.
Positive Result for NCSU DCM2 only :	About 50% of dogs with this mutation will develop DCM. Dogs that are positive for only DCM2 will not necessarily develop significant heart disease.
Breeding recommendations:	Dogs are positive for DCM2 should NEVER be bred to a dog that is positive for NCSU DCM1 (PDK4) since this will lead to dogs that are highest risk of developing DCM. Dogs that are positive homozygous for DCM2 should ideally not be bred.
Positive result for both NCSU DCM1 and NCSU DCM2 :	Dogs that positive for BOTH DCM1 & DCM2 are at a very HIGH risk of developing DCM and should be carefully monitored by your veterinarian for signs of disease. Annual evaluation by a cardiologist with an echocardiogram and Holter monitor after 3 years of age is recommended.
Breeding recommendations:	Dogs that are positive for both DCM1 & DCM2 are at the HIGHEST risk of developing DCM and should ideally not be bred since they can pass both traits on. They should never be bred to a dog that is positive for either test.



As always, breeding decisions should be made carefully. Removal of a significant number of dogs from the breeding population could be very bad for the Doberman Pinscher breed. Remember that dogs that carry this mutation may also carry other important good genes that we do not want to lose from the breed.





Gastrointestinal Laboratory
 Dr. J.M. Steiner
 Department of Small Animal Clinical Sciences
 Texas A&M University
 4474 TAMU
 College Station, TX 77843-4474



Website User ID: Cardiovet@tufts.edu OR clinpath@tufts.edu

GI Lab Assigned Clinic ID: 11405

B6
 Tufts University-Clinical Pathology Lab
 Attn: **B6**
 200 Westboro Road
 North Grafton, MA 01536
 USA

Phone: 508 887 4669
 Fax: 9 508 839 7936
 Animal Name: **B6**
 Owner Name: **B6**
 Species: Canine
 Date Received: **B6**

Clinical Pathology Tracking Number: 320320

GI Lab Accession: **B6**

Test	Result	Control Range	Assay Date
Ultra-Sensitive Troponin I Fasting	B6 ng/mL	≤0.06	B6

B6

Comments:

**Important
Notices:**

Internal Medicine Conference

Join us for a unique continuing education event in Phuket, Thailand Oct 7th - 11th, 2019. For details see <http://texasimconference.tamu.edu>

Ongoing studies

Cobalamin Supplementation Study- Dogs and cats with cobalamin deficiency with normal PLI, and either normal or low (consistent with EPI) TLI to compare the efficacy of oral vs parenteral cobalamin supplementation. Contact Dr. Chang at chchang@cvm.tamu.edu for further information.

Chronic Pancreatitis with Uncontrolled Diabetes Mellitus- Seeking dogs with chronic pancreatitis and uncontrolled diabetes mellitus for enrollment into a drug trial (medication provided at no cost). Contact Dr. Sue Yee Lim at slim@cvm.tamu.edu or Dr. Sina Marsilio at smarsilio@cvm.tamu.edu

Dogs with Primary Hyperlipidemia- Prescription diet naïve dogs newly diagnosed with primary hyperlipidemia are eligible to be enrolled in a dietary trial. Contact Dr. Lawrence at ylawrence@cvm.tamu.edu for more information.

Dogs with Chronic Pancreatitis- Dogs with chronic pancreatitis (cPLi >400µg/L) and hypertriglyceridemia (>300 mg/dl) are eligible to be enrolled in a dietary trial. Contact Dr. Lawrence at ylawrence@cvm.tamu.edu

Chronic enteropathies in dogs- Please fill out this brief form <http://tinyurl.com/ibd-enroll> to see if your patient qualifies.

Feline Chronic Pancreatitis- Cats with chronic pancreatitis for more than 2 weeks and fPLI >10 µg/L are eligible for enrollment into a treatment trial investigating the efficacy of prednisolone or cyclosporine. Please contact Dr. Yamkate for further information at pyamkate@cvm.tamu.edu.

We can not accept packages that are marked "Bill Receiver"

Use our preprinted shipping labels to save on shipping. Call 979-862-2861 for assistance. The GI Lab is not here to accept packages on the weekend. Samples may be compromised if you ship for arrival on Saturday or Sunday or if shipped via US Mail.

GI Lab Contact Information

Phone: (979) 862-2861

Fax: (979) 862-2864

Email: gilab@cvm.tamu.edu

vetmed.tamu.edu/gilab

Foster Hospital for Small Animals

55 Willard Street
North Grafton, MA 01536
(508) 839-5395

All Medical Records

Client: [B6]
Address: [B6]

Patient: [B6]
Breed: Golden Retriever
DOB: [B6]

Species: Canine
Sex: Female
(Spayed)

Home Phone: [B6]
Work Phone: [B6]
Cell Phone: [B6]

Referring Information

[B6]

Client: [B6]
Patient: [B6]

Initial Complaint:

Emergency

SOAP Text [B6] 5:44PM - Clinician, Unassigned FHSA

Subjective

NEW VISIT (ER)

Doctor: [B6] DVM
Student: [B6] V18
Presenting complaint: [B6]
Referral visit? [B6]
Diagnostics completed prior to visit: [B6]

HISTORY:

Current history:

[B6]

Client: **B6**
Patient: **B6**

B6

Prior medical history: **B6**

Current medications: None

Diet: Zignature kangaroo 1 cup BID dry for the past 6-8 months

Vaccination status/flea & tick preventative use **B6** all year round

Travel history: None

EXAM:

B6

C/V: Normal sinus rhythm, no murmur ausculted, femoral pulses fair bilaterally. Jugular pulses in bottom 1/3 neck.

RESP: Normal bronchovesicular sounds bilaterally, no crackles or wheezes, eupneic.

B6

ASSESSMENT:

A1: Cardiomegaly (right >> left ventricular enlargement) - DCM (taurine deficiency vs primary cardiomyopathy) v MVD

A2: Intermittent, non-productive cough - tracheal compression from enlarged heart vs CHF vs primary pulmonary disease (inflammatory v infectious v neoplastic)

A3: Weight loss - suspect cardiac cachexia v other

PLAN:

B6

Client: **B6**
Patient: **B6**

B6

Diagnostics completed @ Tufts:

- Left lateral and VD CXR - generalized cardiomegaly, mild pulmonary vessel enlargement, +/- enlarged caudal vena cava, full report pending
- BP 125 mmHg

Client communication: **B6**

B6

Deposit & estimate status: **B6**

Resuscitation code (if admitting to ICU): **B6**

SOAP approved (DVM to sign): **B6** DVM **B6** Intern)

SOAP Text **B6** 7:21AM - Clinician, Unassigned FHSA

Subjective

Exam, cardiology

B6

B6

She has been on Zigniture Kangaroo Diet for the last 6-8 months

Diet: Zignature Kangaroo 8/2017-4/2018. Acana duck& pear, Pork & squash 11/2015-7/2017

B6

Client: **B6**
Patient: **B6**

B6

Heart: II/VI left apical murmur, sinus arrhythmia noted on auscultation, jugular pulses in bottom 1/3 of the neck, femoral pulses good

Lungs: normal bronovesicular sounds on auscultation, no crackled or wheezes heard

B6

Assessments

A1: enlarged right heart r/o- DCM, taurine deficiency from diet, DMVD

A2: hx of a cough r/o- CHF, enlarged heart pressing on trachea, primary pulmonary disease (inflammatory vs infectious vs neoplasia)

Plan

P1: Echo

P2: UA (culture)

P3: CBC/CHEM

SOAP completed by **B6**

SOAP reviewed by **B6**

Initial Complaint:

Recheck **B6**

SOAP Text **B6** 10:54AM - **B6**

Initial Complaint:

Emergency

SOAP Text **B6** 3:19AM - **B6**

Subjective

NEW VISIT (ER)

Doctor: **B6**

Student: ---

Presenting complaint: Coughing

Referral visit? No

Diagnostics completed prior to visit

HISTORY:

Client:
Patient:

B6

Signalment: 10 yo SF Golden

Current history:

B6

History of eating objects. Owners are concerned she may have eaten an item on Christmas.

Prior medical history: Diagnosed with DCM in April 2018

Current medications:

B6

Diet: unknown

Vaccination status/flea & tick preventative use: unknown

Travel history: unknown

EXAM:

B6

C/V: grade II/VI systolic murmur, sinus arrhythmia, femoral pulses fair and synchronous

RESP: clear BVS bilaterally, eupneic

B6

ASSESSMENT:

A1: Coughing-- r/o CHF vs bronchial compression vs pneumonia vs bronchitis vs other

PLAN:

B6

Client: **B6**
Patient: **B6**

abdomen

Diagnostics pending:
None

Client communication:

B6

Met again, discussed that no evidence of fluid in lungs but profoundly large RV. Recommended hospitalization again for cardio consult, should see cardio ASAP. O declined, will schedule appointment. Recommend **B6** at least once/day.

Deposit & estimate status: n/a

Resuscitation code (if admitting to ICU): n/a

SOAP approved (DVM to sign): **B6** DVM

Initial Complaint:

Recheck - **B6**

Disposition/Recommendations

Client:
Patient:

B6

Client: **B6**
 Patient: **B6**

Cummings
Veterinary Medical Center
 AT TUFTS UNIVERSITY

Foster Hospital for Small Animals

55 Willard Street
 North Grafton, MA 01536
 (508) 839-5395

Client: **B6**
 Veterinarian:
 Patient ID: **B6**
 Visit ID:

Patient: **B6**
 Species: **canine**
 Breed: Golden Retriever
 Sex: Female (Spayed)
 Age: **B6** Years Old

Lab Results Report

Nova Full Panel-ICU **B6** 7:40:25 PM **Accession ID: B6**

Test	Results	Reference Range	Units
SO2%	B6	94 - 100	%
HCT (POC)		38 - 48	%
HB (POC)		12.6 - 16	g/dL
NA (POC)		140 - 154	mmol/L
K (POC)		3.6 - 4.8	mmol/L
CL(POC)		109 - 120	mmol/L
CA (ionized)		1.17 - 1.38	mmol/L
MG (POC)		0.1 - 0.4	mmol/L
GLUCOSE (POC)		80 - 120	mg/dL
LACTATE		0 - 2	mmol/L
BUN (POC)		12 - 28	mg/dL
CREAT (POC)		0.2 - 2.1	mg/dL
TCO2 (POC)		0 - 0	mmol/L
nCA		0 - 0	mmol/L
nMG		0 - 0	mmol/L
GAP		0 - 0	mmol/L
CA/MG		0 - 0	mol/mol
BEeef		0 - 0	mmol/L
BEb		0 - 0	mmol/L
A		0 - 0	mmHg
NOVA SAMPLE	0 - 0		



Client: **B6**
 Patient: **B6**

FiO2	B6	0 - 0	%
PCO2		36 - 44	mmHg
PO2		80 - 100	mmHg
PH		7.337 - 7.467	
PCO2		36 - 44	mmHg
PO2		80 - 100	mmHg
HCO3		18 - 24	mmol/L

Nova Full Panel-ICU **B6** **8:06:27 PM** **Accession ID: B6**

Test	Results	Reference Range	Units
TS (FHSA)	B6	0 - 0	g/dl
PCV **		0 - 0	%
TS (FHSA)		0 - 0	g/dl

Nova Full Panel-ICU **B6** **9:43:01 AM** **Accession ID: B6**

Test	Results	Reference Range	Units
TAURINE P	B6	60 - 120	nmol/mL
TAURINE WB		200 - 350	nmol/mL

Nova Full Panel-ICU **B6** **9:44:12 AM** **Accession ID: B6**

Test	Results	Reference Range	Units
WBC (ADVIA)	B6	4.4 - 15.1	K/uL
RBC(ADVIA)		5.8 - 8.5	M/uL
HGB(ADVIA)		13.3 - 20.5	g/dL
HCT(ADVIA)		39 - 55	%
MCV(ADVIA)		64.5 - 77.5	fL
MCH(ADVIA)		21.3 - 25.9	pg
MCHC(ADVIA)		31.9 - 34.3	g/dL
RDW (ADVIA)		11.9 - 15.2	
PLT(ADVIA)		173 - 486	K/uL
MPV (ADVIA)		8.29 - 13.2	fL
PLTCRT		0.129 - 0.403	%
RETIC(ADVIA)		0.2 - 1.6	%
RETICS (ABS) ADVIA		14.7 - 113.7	K/uL

Nova Full Panel-ICU **B6** **9:44:27 AM** **Accession ID: B6**

Test	Results	Reference Range	Units
GLUCOSE	B6	67 - 135	mg/dL
UREA		8 - 30	mg/dL
CREATININE		0.6 - 2	mg/dL
PHOSPHORUS		2.6 - 7.2	mg/dL
CALCIUM2		9.4 - 11.3	mg/dL
MAGNESIUM 2+		1.8 - 3	mEq/L
T. PROTEIN		5.5 - 7.8	g/dL



Client: **B6**
 Patient: **B6**

ALBUMIN		2.8 - 4	g/dL
GLOBULINS		2.3 - 4.2	g/dL
A/G RATIO		0.7 - 1.6	
SODIUM		140 - 150	mEq/L
CHLORIDE		106 - 116	mEq/L
POTASSIUM		3.7 - 5.4	mEq/L
tCO2 (BICARB)		14 - 28	mEq/L
AGAP		8 - 19	
NA/K		29 - 40	
T BILIRUBIN		0.1 - 0.3	mg/dL
D.BILIRUBIN	B6	0 - 0.1	mg/dL
I BILIRUBIN		0 - 0.2	mg/dL
ALK PHOS		12 - 127	U/L
GGT		0 - 10	U/L
ALT		14 - 86	U/L
AST		9 - 54	U/L
CK		22 - 422	U/L
CHOLESTEROL		82 - 355	mg/dL
TRIGLYCERIDES		30 - 338	mg/dl
AMYLASE		409 - 1250	U/L
OSMOLALITY (CALCULATED)		291 - 315	mmol/L

Nova Full Panel-ICU **B6** 9:44:10 AM Accession ID: **B6**

Test	Results	Reference Range	Units
SEGS%	78	43 - 86	%
L YMPHS%		7 - 47	%
MONOS%		1 - 15	%
EOS%		0 - 16	%
SEGS (AB)ADVIA	B6	2.8 - 11.5	K/uL
L YMPHS (ABS)ADVIA		1 - 4.8	K/uL
MONOS (ABS)ADVIA		0.1 - 1.5	K/uL
EOS (ABS)ADVIA		0 - 1.4	K/uL
WBC MORPHOLOGY		0 - 0	
No Morphologic Abnormalities			
CRENATION	Occasional	0 - 0	
H-J BODIES	Occasional	0 - 0	



10/54

B6

Printed Monday, January 14, 2019

Client:
Patient:

B6

rDVM

B6

and hx 2/23/09-4/10/18



REFERRAL FORM

TUFTS UNIVERSITY
Cummings School of Veterinary Medicine
Henry and Lois Foster Hospital for Small Animals
Hospital for Large Animals
200 Westboro Road, Route 30
North Grafton, MA 01536
508-839-5395

Service to Which Referred: Cardiology Appointment Date: _____ Time: _____

OWNER INFORMATION:

Name: **B6** Daytime Phone: **B6** Evening Phone: _____

Address: **B6**

PATIENT INFORMATION:

Registered Name/ID: **B6**

Species: Canine Breed: Golden ret Sex: FS Age: 9yr

CASE HISTORY

Chief Concern/Provisional Diagnosis: Heart Disease, Pericardial Effusion with cough

Vaccination History: Rabies - 7-7-16 3yr
Dist - 7-7-16 3yr

Other History: _____

Diagnostic Test Results (if possible, please attach results): _____

Are Radiographs enclosed? No - Ambling

Current Therapy & Medication (include dosages): _____
ADCHL 1mg
Phl 1

Special Comments/Requests: _____

REFERRING VETERINARIAN INFORMATION

B6

When a patient is being referred which has had lab work done at TVDL, please include copies of the lab results or the TVDL accession number. If you are faxing us information about a clinical case which has been referred, please use fax number (508) 839-7951.

Client: B6
Patient: B6

rDVM B6 Referral and hx 2/23/09-4/10/18

04-10-2018 7:41 AM

B6

B6

D1

B6

B6

B6



B6

PET OWNER B6

B6

ACCESSION # B6
REQUISITION #: 110450384
DATE OF COLLECTION: 04/10/2018
DATE OF RECEIPT: 04/10/2018
DATE OF REPORT: 04/10/2018

SPECIES: CANINE
BREED:
GENDER: FEMALE SPAYED
AGE: B6

ACCOUNT #: 42125
ORDERED BY: B6

IDEXX SERVICES: 9999 SAMPLE/TEST INFO NEEDED, 24483989 SENIOR PROF STD FECAL 4DX

HEMATOLOGY

TEST	RESULT	REF. RANGE
RBC *		5.38 - 8.76 MA/L
Hematocrit		38.3 - 56.5 %
Hemoglobin		13.4 - 20.7 g/dL
MCV		69 - 76 fL
MCH		21.8 - 26.1 pg
MCHC		32.8 - 38.2 g/dL
% Reticulocyte		%
Reticulocyte		10 - 110 K/uL
WBC		4.8 - 17.0 K/uL
% Neutrophil		%
% Lymphocyte		%
% Monocyte		%
% Eosinophil		%
% Basophil		%
Neutrophil		2940 - 12670
Lymphocyte		1080 - 4850 /uL
Monocyte		130 - 1150 /uL
Eosinophil		70 - 1460 /uL
Basophil		0 - 100 /uL
Platelet		143 - 448 K/uL

B6

CHEMISTRY

TEST	RESULT	REF. RANGE
Glucose		83 - 114 mg/dL
IDEXX SDMA ^b		0 - 14 ug/dL
Creatinine		0.5 - 1.5 mg/dL
BUN		9 - 31 mg/dL
BUN:Creatinine Ratio		
Phosphorus		2.5 - 6.1 mg/dL
Calcium		9.4 - 11.8 mg/dL
Sodium		142 - 152
Potassium		4.0 - 5.4 mmol/L
Na:K Ratio		28 - 37
Chloride		108 - 118
TCO2 (Bicarbonate)		13 - 27 mmol/L
Anion Gap		11 - 26 mmol/L
Total Protein		5.5 - 7.5 g/dL

Albumin		2.7 - 3.9 g/dL
Globulin		2.4 - 4.0 g/dL
Alb:Glob Ratio		0.7 - 1.5
ALT		18 - 121 U/L
AST		16 - 55 U/L
ALP		5 - 160 U/L
GGT		0 - 13 U/L
Bilirubin - Total		0.0 - 0.3 mg/dL
Bilirubin - Unconjugated		0.0 - 0.2 mg/dL
Bilirubin - Conjugated		0.0 - 0.1 mg/dL
Cholesterol		83 - 346 mg/dL
Amylase		337 - 1469 U/L
Lipase		138 - 755 U/L
H Creatine Kinase		10 - 200 U/L
Hemolysis Index ^c		
Lipemia Index ^d		

B6

ENDOCRINOLOGY

TEST	RESULT	REF. RANGE
Total T4 *	B6	(1.0 - 4.0) ug/dL

SEROLOGY

TEST	RESULT	REF. RANGE
Heartworm Antigen		
Ehrlichia canis / ewingii		
Lyme (Borrelia burgdorferi)		
Anaplasma phagocytophilum / platys ^f		

B6

Get deeper insights: For complete access to this patient's diagnostic results, including historic values and images, login to
Final report generated April 10, 2018

B6
PAGE 1 of 3

Client:
Patient:

B6

rDVM

B6

Referral and hx 2/23/09-4/10/18

B6

B6

D2

B6

B6

Customer Support
B6

B6

PET OWNER

B6

DATE OF REPORT:

B6

ACCESSION #

B6

LAB SERVICES: 9999 SAMPLE/TEST INFO NEEDED, 24483999 SENIOR PROF STD FECAL 4DX

OTHER

SAMPLE / TEST INFO NEEDED

A fecal specimen was not received. The remainder of requested testing has been performed. Thank you.

A urine specimen was not received. The remainder of requested testing has been performed. Thank You.

B6

Client: **B6**
Patient: **B6**

rDVM: **B6** Referral and hx 2/23/09-4/10/18

B6 **B6** **B6** **B6**

B6 **B6** **B6** **B6**

B6 **B6** **B6** **B6**

B6 SERVICES: 9999 SAMPLE/TEST INFO NEEDED, 24483999 SENIOR PROF STD FECAL 4DX

B6

Get deeper insights: For complete access to this patient's diagnostic results, including historic values and images, login to **B6**
Final report generated April 10, 2018 **B6** PAGE 3 of 3

Client: **B6**
Patient:

rDVM: **B6** Referral and hx 2/23/09-4/10/18

Patient History Report

Client:	B6	Patient:	B6	Breed:	RETRIEVER/GOLDE N
Phone:		Species:	CANINE	Sex:	Spayed Female
Address:		Age:	B6	Color:	Gold

Date	Type	Staff	History
------	------	-------	---------

B6	L	1	Hematology results from B6 Reference Laboratory Requisition ID: 110450384	Posted	Final
			Test	Result	Reference Range
			HCT	B6	38.3 - 56.5
			HGB		13.4 - 20.7
			MCHC		32.6 - 39.2
			WBC		4.9 - 17.6
			EOS		
			RBC		5.39 - 8.70
			MCV		59 - 76
			MCH		21.9 - 26.1
			LYMPHS		
			MONOS		
			BASO		
			NEUT SEG		
			PLATELETS		143 - 448
			RETIC CNT		
			ABS BASO		0 - 100
			ABS EOS	70 - 1490	
			ABS LYMPHS	1060 - 4950	
			ABS MONOS	130 - 1150	
			ABS NEUTS	2940 - 12670	
			ABS RET	10 - 110	
			Asc: B6		
			AUTOMATED CBC		

B6	L	1	Chemistry results from B6 Reference Laboratory Requisition ID: B6	Posted	Final
			Test	Result	Reference Range
			ALKP	B6	5 - 160
			ALT		18 - 121
			AST		16 - 55
			AMYL		337 - 1469
			BUN/UREA		9 - 31
			ALB		2.7 - 3.9
			Ca		8.4 - 11.8
			Chloride		108 - 119
			CHOL		131 - 345
			CK		10 - 200
			CREA		0.5 - 1.5
			GGT		0 - 13
			GLU		63 - 114
			LIPA		138 - 755
			PHOS		2.5 - 6.1
			Potassium		4.0 - 5.4
			Sodium		142 - 152

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

Client: B6
Patient: B6

rDVM B6 Referral and hx 2/23/09-4/10/18

Patient History Report

Client:	B6	Patient:	B6	Breed:	RETRIEVER/GOLDE N
Phone:		Species:	CANINE	Sex:	Spayed Female
Address:		Age:	B6	Color:	Gold

Date	Type	Staff	History
------	------	-------	---------

TBIL	B6	0.0 - 0.3
TP		5.5 - 7.5
GLOB		2.4 - 4.0
DBIL		0.0 - 0.1
SDMA		0 - 14
ANION GAP		11 - 26
BICARB		13 - 27
IBIL		0.0 - 0.2
A/G Ratio		0.7 - 1.5
B/C Ratio		
Na/K Ratio	28 - 37	

Ascn: B6
RE: B6 HEMOLYSIS INDEX 2+
Index of N, 1+, 2+ exhibits no significant effect on chemistry values.
RE: B6 LIPEMIA INDEX N
Index of N, 1+, 2+ exhibits no significant effect on chemistry values.

BOTH SDMA AND CREATININE ARE WITHIN THE REFERENCE INTERVAL which indicates kidney function is likely good. Evaluate a complete urinalysis and confirm there is no other evidence of kidney disease.

B6 L 1

Endocrinology results from B6 Reference
Laboratory Requisition ID: 110450384 Posted Final
Test Result Reference Range
T4 B6 ug/dL 1.0 - 4.0
Ascn: B6

Relative ranges:
B6
Low
Normal
High
Therapeutic
Dogs with no clinical signs of hypothyroidism and results within the normal reference range are likely euthyroid. Dogs with low T4 concentrations may be hypothyroid or euthyroid sick. Occasionally, hypothyroid dogs can have T4 concentrations that are low normal. Dogs with clinical signs of hypothyroidism and low or low normal T4 concentrations may be evaluated further by submission of

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

Page 2 of 17

Date: 4/10/2018 2:06 PM

Client: **B6**
Patient:

rDVM: **B6** Referral and hx 2/23/09-4/10/18

Patient History Report

Client: **B6** Patient: **B6**
Phone: **B6** Species: CANINE Breed: RETRIEVER/GOLDE
Address: **B6** Age: **B6** Sex: Spayed Female
Color: Gold

Date	Type	Staff	History
------	------	-------	---------

free T4 and canine TSH. A high T4 concentration in a clinically normal dog is likely variation of normal; however elevations may occur secondary to thyroid autoantibodies or rarely thyroid neoplasia. For dogs on thyroid supplement, acceptable 4-6 hour post pill total T4 concentrations generally fall within the higher end or slightly above the reference range.

B6

1

Immunology results from **B6** Reference
Laboratory Requisition ID: 110450384 Posted Final
Test Result Reference Range
EHRlichIA **B6**
HEARTWORM
ANA PH
LYME
Asc: **B6**

The American Heartworm Society recommends that a confirmatory test be run on all positive antigen test results prior to therapy, especially when a positive test result is unexpected. For a positive heartworm result on a 4Dx Plus, we recommend test code 723, Heartworm Antigen by ELISA as a confirmatory test. The Ehrlichia canis/Ehrlichia ewingii antibody portion of the test uses peptides from each organism that are sensitive and specific for detecting exposure to these pathogens. If positive, submission of a fresh whole blood sample with an air-dried smear for a comprehensive CBC, test code 300, is recommended to identify abnormalities consistent with infection, primarily thrombocytopenia and anemia. PCR testing is complementary to serology and may be useful for confirmation of infection and for detection of infection in patients early in infection prior to seroconversion, especially in patients with clinical signs. Consider test code 2854, Ehrlichia spp RealPCR Test, or

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

Page 3 of 17

Date: 4/10/2018 2:06 PM

Client: **B6**
Patient:

rDVM **B6** Referral and hx 2/23/09-4/10/18

Patient History Report

Client: **B6** Patient: **B6**
Phone: **B6** Species: CANINE Breed: RETRIEVER/GOLDE
Address: **B6** Age: **B6** Sex: Spayed Female
Color: Gold

Date	Type	Staff	History
------	------	-------	---------

test code 28701, Tick/Vector Comprehensive RealPCR Panel Add-on (preferred).
The Lyme (Borrelia burgdorferi) antibody portion of the test detects Lyme C6 antibodies. A positive Lyme C6 antibody response indicates infection in dogs, rather than exposure or vaccination. This test may detect antibodies before clinical signs of joint disease. The quantitative assay for Lyme C6 antibodies (Lyme Quant C6 Antibody by ELISA, test code 7246) is preferred for assessing response to treatment. A measurable decline in quantitative Lyme C6 antibody levels within 6 months correlates with effective treatment, whereas the 4Dx Plus test may remain positive. For more information on Lyme, please visit <https://www.idexx.com/smallanimal/facts-about-lyme.html>
The Anaplasma phagocytophilum/Anaplasma platys antibody portion of the test uses a peptide that is sensitive and specific for detecting exposure to these organisms. If positive, submission of a fresh whole blood sample with an air-dried smear is recommended to identify abnormalities consistent with infection, primarily thrombocytopenia. PCR testing is complementary to serology and may be useful for confirmation of infection and for detection of infection in patients early in infection prior to seroconversion, especially in patients with clinical signs. Consider test code 2824, Anaplasma spp RealPCR Test, or test code 28701, Tick/Vector Comprehensive RealPCR Panel Add-on (preferred).

B6 L 1 Miscellaneous results from **B6**
Laboratory Requisition ID: TT0450384 Posted Final
Ason: **B6**
RE: 9999 NOTE
NOTE
A fecal specimen was not received. The remainder of requested testing has been performed. Thank you.

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6 Page 4 of 17 Date: 4/10/2018 2:06 PM

Client: **B6**
Patient:

rDVM: **B6** Referral and hx 2/23/09-4/10/18

Patient History Report

Client:	B6	Patient:	B6	Breed:	RETRIEVER/GOLDE N
Phone:		Species:	CANINE	Sex:	Spayed Female
Address:		Age:	B6	Color:	Gold

Date	Type	Staff	History
------	------	-------	---------

A urine specimen was not received. The remainder of requested testing has been performed. Thank You.

B6	PP	1
	PP	1
	T	1
	PP	1
	B	1
	B	1
	B	1
	B	1
	B	1
	L	1



SNAP Assays results from: **B6** VetLab In-clinic
Laboratory Requisition ID: 32605 Posted Final
Test Result Reference Range
HW =
Lyme = **B6**
E. canis =
A. ph. =

B6	CK	1
	B	1
	B	1
	B	1
	B	1
	B	1
	B	1
	B	1
	B	1
	B	1
	P	B6 160
	B	160
	P	16
	P	16

CHECK UP AND VACCINES
Reason for Visit: Annual Examination



B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

Client: **B6**
Patient:

rDVM **B6** Referral and hx 2/23/09-4/10/18

Patient History Report

Client:	B6	Patient:	B6	Breed:	RETRIEVER/GOLDE N
Phone:		Species:	CANINE	Sex:	Spayed Female
Address:		Age:	B6	Color:	Gold

Date	Type	Staff	History
------	------	-------	---------

	V	B6	B6
	B	18	
	B	18	
	B	18	
	B	18	
	P	11	
	P	11	
	B	11	
	B	11	
	B	11	
	P	1	
B6	P	1	
	P	1	
	P	1	
	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	L	15	

B6

Chemistry results from **B6** VetLab In-clinic
Laboratory Requisition ID: 30399 Posted Final
Test Result Reference Range

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative medl note, V: Vital signs

B6

Client: **B6**
Patient: **B6**

rDVM: **B6** Referral and hx 2/23/09-4/10/18

Patient History Report

Client: **B6** Patient: **B6**
Phone: **B6** Species: CANINE Breed: RETRIEVER/GOLDE
Address: **B6** Age: **B6** Sex: Spayed Female
Color: Gold

Date	Type	Staff	History
------	------	-------	---------

ALKP =	B6	23 - 212
ALT =	B6	10 - 100
AMYL =	B6	500 - 1500
BUN/UREA =	B6	7 - 27
ALB =	B6	2.2 - 3.9
Ca =	B6	7.9 - 12.0
CHOL =	B6	110 - 320
CREA =	B6	0.5 - 1.8
GLU =	B6	70 - 143
PHOS =	B6	2.5 - 6.8
TBIL <	B6	0.0 - 0.9
TP =	B6	5.2 - 8.2
GLOB =	B6	2.5 - 4.5

B6	B	1
	B	1
	P	1
	P	15
	T	B6
	B	15
	B	15
	B	15
	B	15
	P	11
	B	11
	L	1

B6

1.00 bottle of **B6** 25g (10317) by **B6**
SNAP Assays results from **B6** VetLab In-clinic
Laboratory Requisition ID: 29082 Posted Final
Test Reference Range
HW = **B6**
Lyme =
E. canis =
A. ph. =

B6 P 1 1.00 bottle of **B6** 8 oz (10670)
Rx #: 211391 **B6** 0 Of 0 Refills Filled by: **B6**
GIVE 10 MINUTE BATHS AND FOLLOW INSTRUCTIONS ON BOTTLE.

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates,
I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended,
R: Correspondence, T: Images, TC: Tentative med note, V: Vial signs

B6

Page 7 of 17

Date: 4/10/2018 2:06 PM

Client: **B6**
Patient:

rDVM: **B6** Referral and hx 2/23/09-4/10/18

Patient History Report

Client: **B6** Patient: **B6**
Phone: **B6** Species: CANINE Breed: RETRIEVER/GOLDE
Address: **B6** Age: **B6** Sex: Spayed Female
Color: Gold

Date Type Staff History

	P	1	B6
	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	V	B6	
	B	1	
	P	1	
B6	P	1	
	B	1	
	B	1	
	B	1	
	P	1	
	P	1	
	T	B6	
	T	1	
	B	1	
	B	1	
	B	1	
01/27/2017	B	13	

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing Instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

Page 8 of 17

Date: 4/10/2018 2:06 PM

Client: **B6**
Patient:

rDVM **B6** Referral and hx 2/23/09-4/10/18

Patient History Report

Client:	B6	Patient:	B6	Breed:	RETRIEVER/GOLDE N
Phone:		Species:	CANINE	Sex:	Spayed Female
Address:		Age:	B6	Color:	Gold

Date	Type	Staff	History
	P	13	B6
	P	13	
	P	13	
	P	13	
	L	13	SNAP Assays results from B6 VetLab In-clinic Laboratory Requisition ID: 26376 Posted Final Test Result Reference Range HW = Lyme = B6 E. canis = A. ph. =
B6	B	13	B6
	B	13	
	B	13	
	B	13	
	B	13	
	B	13	
	B	13	
	B	13	
	B	13	
	B	13	
	B	11	
	B	11	B6

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates,
I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended,
R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

Page 9 of 17

Date: 4/10/2018 2:06 PM

Client: **B6**
Patient:

rDVM: **B6** Referral and hx 2/23/09-4/10/18

Patient History Report

Client:	B6	Patient:	B6	Breed:	RETRIEVER/GOLDE N
Phone:		Species:	CANINE	Sex:	Spayed Female
Address:		Age:	B6	Color:	Gold

Date	Type	Staff	History
------	------	-------	---------

	B	B6	B6
	B	1	
	B	1	
	B	1	
	P	10	
	B	10	
	B	10	
	B	10	
	P	1	
	P	1	
	V	B6	B6
B6	L	11	
		Weight : 81.60 pounds	
		SNAP Assays results from B6 VetLab In-clinic	
		Laboratory Requisition ID: 19688 Posted Final	
		Test Reference Range	
		HW = B6	
		Lyme =	
		E. canis =	
		A. ph. =	
	B	1	B6
	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	P	1	
	P	1	
	V	B6	

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, F: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med. note, V: Vital signs

B6

Page 11 of 17

Date: 4/10/2018 2:06 PM

Client: B6
Patient: B6

rDVM B6 Referral and hx 2/23/09-4/10/18

Patient History Report

Client: B6 Patient: B6
Phone: B6 Species: CANINE Breed: RETRIEVER/GOLDE N
Address: B6 Age: B6 Sex: Spayed Female
Color: Gold

Date	Type	Staff	History
------	------	-------	---------

Weight : 80.30 pounds

B 1
B 1
B 1
B 1
B 1
B 1
B 1
B 1
B B6
B 10
P

B6

B6

B 10
B 10
L 1

SNAP Assays results from B6 VetLab In-clinic
Laboratory Requisition ID: 16007 Posted Final
Test Reference Range
HW = B6
Lyme =
E. canis =
A. ph. =

P 1

B 1
B 1
B 1
B 1
B 1
B 1
B 1
B 1
P B6

B6

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative medl note, V: Vital signs

B6

Client: **B6**
Patient:

rDVM **B6** Referral and hx 2/23/09-4/10/18

Patient History Report

Client:	B6	Patient:	B6	Breed:	RETRIEVER/GOLDE N
Phone:		Species:	CANINE	Sex:	Spayed Female
Address:		Age:	B6	Color:	Gold

Date	Type	Staff	History
------	------	-------	---------

			B6
	B	B6	
	B	10	
	B	10	
	B	B6	
	L	1	SNAP Assays results from B6 VetLab In-clinic Laboratory Requisition ID: 12464 Posted Final Test Result Reference Range HW = Lyme = B6 E. canis = A. ph. =
	P	1	
B6	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	B	B6	
	P		
	B	B6	
	B	8	
	V		

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative medl note, V: Vital signs

B6

Page 13 of 17

Date: 4/10/2018 2:06 PM

Client: **B6**
Patient:

rDVM **B6** Referral and hx 2/23/09-4/10/18

Patient History Report

Client:	B6	Patient:	B6	Breed:	RETRIEVER/GOLDE N
Phone:		Species:	CANINE	Sex:	Spayed Female
Address:		Age:	B6	Color:	Gold

Date	Type	Staff	History
------	------	-------	---------

	B	1	B6
	B	B6	
	B	1	
	B	1	
	B	B6	
	B	1	
	P	1	
	L	11	
	B	11	
	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	B	B6	
	P	1	
	B	1	
	B	B6	
	P	1	
	B	1	
	B	B6	
	P	8	
	B	8	

Chemistry results from **B6** VetLab In-clinic
Laboratory Requisition ID: 6101 Posted Final
Test Result Reference Range
BUN/UREA = **B6** 7 - 27
CREA = **B6** 0.5 - 1.8

B6

B: Billing, C: Med note, CB: Call back, GK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, I: Images, TC: Tentative med note, V: Vital signs

B6

Client: **B6**
Patient:

rDVM: **B6** Referral and hx 2/23/09-4/10/18

Patient History Report

Client: **B6** Patient: **B6**
Phone: **B6** Species: CANINE Breed: RETRIEVER/GOLDE
Address: **B6** Age: **B6** Sex: Spayed Female
Color: Gold

Date	Type	Staff	History
------	------	-------	---------

B6	B	8	B6
	B	8	
	B	8	
	B	8	
	B	B6	
	B		
	P	7	
	B	7	
	B	7	
	B	B6	
	P	1	
	P	1	
	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	B	1	
	V	1	
B6	B	1	
	B	1	
	L	11	

SNAP Assays results from **B6** VetLab In-clinic
Laboratory Requisition ID: 4803 Posted Final
Test Result Reference Range
HW =
Lyme =
E. canis = **B6**
A. ph. =

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

Client: **B6**
Patient:

rDVM **B6** Referral and hx 2/23/09-4/10/18

Patient History Report

Client:	B6	Patient:	B6	Breed:	RETRIEVER/GOLDE
Phone:		Species:	CANINE		N
Address:		Age:	B6	Sex:	Spayed Female
		Color:	Gold		

Date	Type	Staff	History
------	------	-------	---------

B6	P	1	B6
	B	B6	
	B		
	V		
	B	1	
	B	1	
	B	1	
	B	1	

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

Client: **B6**
Patient:

Amino Acid Labs Taurine Panel 4/11/18

B6 PL
WB

Sample Submission Form

Amino Acid Laboratory
University of California, Davis
1020 Vet Med 3B
1089 Veterinary Medicine Drive
Davis, CA 95616
Tel: (530)752-5058, Fax: (530)752-4698

UC CUSTOMERS ONLY:
Non-federal funds ID/Account Number
to bill: _____

<http://www.vetmed.ucdavis.edu/vmb/aal/aal.html>

Vet/Tech Contact: **B6**
Company Name: Tufts Cummings School of Veterinary Medicine
Address: 200 Westboro Road
North Grafton, MA 01536
Email: clinpath@tufts.edu
Tel: 508-887-4669 Fax: 508-839-7936

Billing Contact: **B6** TAX ID: _____
Email: **B6** Te: **B6**

Patient Name: **B6**
Species: canine
Owner's Name: **B6**

B6
B6 Canine
B6 9:43 AM
TAURINE PANEL
Lithium Heparin

Sample Type: Plasma Whole Blood Urine Food Other: _____
Test Items: Taurine Complete Amino Acid Other: _____

Taurine Results (nmol/ml)

Plasma: **B6** Whole Blood: **B6** Urine: _____ Food: _____

Reference Ranges (nmol/ml)

	Plasma		Whole Blood	
	Normal Range	No Known Risk for Taurine Deficiency	Normal Range	No Known Risk for Taurine Deficiency
Cat	80-120	>40	300-600	>200
Dog	60-120	>40	200-350	>150

B6
B6
B6 9:43 AM
TAURINE PANEL
Lithium Heparin
Canine

Client:
Patient:

B6

Diet history 1-2-19

CARDIOLOGY DIET HISTORY FORM

Please answer the following questions about your pet

Pet's name: **B6** Owner's name: **B6** Today's date: **B6**

1. How would you assess your pet's appetite? (mark the point on the line below that best represents your pet's appetite)

Example: Poor _____ Excellent
Poor _____ Excellent

2. Have you noticed a change in your pet's appetite over the last 1-2 weeks? (check all that apply)

Eats about the same amount as usual Eats less than usual Eats more than usual
 Seems to prefer different foods than usual Other _____

3. Over the last few weeks, has your pet (check one)

Lost weight Gained weight Stayed about the same weight Don't know

4. Please list below ALL pet foods, people food, treats, snack, dental chews, rawhides, and any other food item that your pet currently eats. Please include the brand, specific product, and flavor so we know exactly what you pet is eating.

Examples are shown in the table – please provide enough detail that we could go to the store and buy the exact same food.

Food (include specific product and flavor)	Form	Amount	How often?	Fed since
Nutro Grain Free Chicken, Lentil, & Sweet Potato Adult	dry	1 1/2 cup	2x/day	Jan 2018
85% lean hamburger	microwaved	3 oz	1x/week	Jan 2015
Pupperoni original beef flavor	treat	1/2	1x/day	Aug 2015
Rawhide	treat	6 inch twist	1x/week	Dec 2015
Royal Canin Early Cardiac	dry	1 1/2 cup	2x day	April 2018
Bananas		1/2 banana	2x day	
GRUK yogurt		1 1.	1x day	
Extra-diel Chew stick		5" STICK	2x week	April 2017
veggies - broccoli, zucchini, butternut squash, pumpkin,		1/2 cup	3x wk	

*Any additional diet information can be listed on the back of this sheet

5. Do you give any dietary supplements to your pet (for example: vitamins, glucosamine, fatty acids, or any other supplements)? Yes No If yes, please list which ones and give brands and amounts:

	Brand/Concentration	Amount per day
Taurine	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No _____	2,000 mg day
Carnitine	<input type="checkbox"/> Yes <input type="checkbox"/> No _____	_____
Antioxidants	<input type="checkbox"/> Yes <input type="checkbox"/> No _____	_____
Multivitamin	<input type="checkbox"/> Yes <input type="checkbox"/> No _____	_____
Fish oil	<input type="checkbox"/> Yes <input type="checkbox"/> No _____	_____
Coenzyme Q10	<input type="checkbox"/> Yes <input type="checkbox"/> No _____	_____
Other (please list): Example: Vitamin C	Nature's Bounty	500 mg tablets - 1 per day
_____	_____	_____
_____	_____	_____
_____	_____	_____

6. How do you administer pills to your pet?

I do not give any medications
 I put them directly in my pet's mouth without food
 I put them in my pet's dog/cat food
 I put them in a Pill Pocket or similar product
 I put them in foods (list foods): Banana

DIETS BEFORE DIAGNOSIS
• SIGNATURE KIBBLED - 6-8 MONTHS (SEPT 2017 - APRIL 2018)
• ACQUA BOKK/SQUASH OR DUCK/PEAR BEFORE THAT

Client: **B6**
Patient:

Vitals Results

5:40:32 PM	Heart Rate (/min)
5:40:33 PM	Respiratory Rate
5:40:34 PM	Temperature (F)
5:40:35 PM	Weight (kg)
8:02:29 PM	Catheter Assessment
8:11:31 PM	Respiratory Rate
8:11:45 PM	Heart Rate (/min)
8:12:00 PM	Temperature (F)
8:21:56 PM	Eliminations
8:26:30 PM	Amount eaten
9:42:33 PM	Blood Pressure (mmHg)
11:00:07 PM	Respiratory Rate
11:18:07 PM	Catheter Assessment
11:18:35 PM	Heart Rate (/min)
11:21:05 PM	Eliminations
11:58:41 PM	Respiratory Rate
1:04:34 AM	Respiratory Rate
1:51:32 AM	Respiratory Rate
2:58:23 AM	Eliminations
3:04:17 AM	Respiratory Rate
3:10:25 AM	Heart Rate (/min)
3:10:31 AM	Catheter Assessment
3:59:04 AM	Respiratory Rate
4:55:24 AM	Eliminations
5:00:41 AM	Respiratory Rate
5:55:00 AM	Respiratory Rate
7:01:46 AM	Respiratory Rate
7:13:45 AM	Temperature (F)
7:14:23 AM	Weight (kg)
7:14:51 AM	Eliminations
7:21:17 AM	Heart Rate (/min)
7:28:11 AM	Catheter Assessment
8:12:43 AM	Amount eaten
9:06:14 AM	Respiratory Rate
9:06:22 AM	Catheter Assessment
9:59:21 AM	Respiratory Rate
10:34:11 AM	Eliminations
11:25:53 AM	Respiratory Rate

B6

B6

Client:
Patient:

B6

Vitals Results

B6

B6

1:27:32 AM	Catheter Assessment
1:27:49 AM	Heart Rate (/min)
1:50:27 AM	Respiratory Rate
:22:02 PM	Respiratory Rate
:26:02 PM	Eliminations
:55:42 PM	Respiratory Rate
:31:07 PM	Respiratory Rate
:34:47 PM	Nursing note
:34:59 PM	Heart Rate (/min)
:57:10 PM	Respiratory Rate
:24:42 AM	Weight (kg)
2:35:27 AM	Heart Rate (/min)
2:35:28 AM	Respiratory Rate
2:35:30 AM	Weight (kg)
5:12:11 AM	Lasix treatment note
2:15:01 PM	Weight (kg)

B6

Client:
Patient:

B6

rDVM

B6

rad

B6

hx Right Lat

B6

Client: **B6**
Patient:

ECG from cardio

B6

B6

10:06:21 AM

Tufts University
Tufts Cummings School of Vet Med
Cardiology

B6

9

Client: **B6**
Patient:

ECG from cardio

B6

B6

10:08:03 AM

Page 1 of 2

Tufts University
Tufts Cummings School of Vet Med
Cardiology

B6

Client: **B6**
Patient: **B6**

ECG from cardio

B6

B6

10:08:03 AM

Page 2 of 2

Tufts University
Tufts Cummings School of Vet Med
Cardiology

B6

Client: **B6**
Patient:

Patient History

	05:40 PM	Vitals	
	05:40 PM	Vitals	
	05:40 PM	Vitals	
	05:40 PM	Vitals	
	05:42 PM	UserForm	
	06:17 PM	UserForm	
	06:18 PM	UserForm	
	07:40 PM	Purchase	
	08:02 PM	Treatment	
	08:02 PM	Vitals	
	08:06 PM	Labwork	
	08:11 PM	Treatment	
	08:11 PM	Vitals	
	08:11 PM	Treatment	
	08:11 PM	Vitals	
	08:12 PM	Treatment	
	08:12 PM	Vitals	
	08:12 PM	Treatment	
	08:13 PM	Purchase	
	08:13 PM	Purchase	
B6	08:20 PM	Purchase	B6
	08:20 PM	Purchase	
	08:21 PM	Treatment	
	08:21 PM	Vitals	
	08:26 PM	Treatment	
	08:26 PM	Vitals	
	08:26 PM	Vitals	
	09:42 PM	Vitals	
	09:43 PM	Treatment	
	11:00 PM	Vitals	
	11:17 PM	Treatment	
	11:17 PM	Treatment	
	11:18 PM	Treatment	
	11:18 PM	Vitals	
	11:18 PM	Treatment	
	11:18 PM	Vitals	
	11:21 PM	Treatment	
	11:21 PM	Vitals	
	11:58 PM	Treatment	
	11:58 PM	Treatment	
	11:58 PM	Vitals	
	01:04 AM	Treatment	
	01:04 AM	Vitals	
	01:04 AM	Vitals	

Client: **B6**
Patient:

Patient History

01:51 AM	Treatment
01:51 AM	Vitals
02:58 AM	Treatment
02:58 AM	Vitals
02:58 AM	Vitals
03:04 AM	Treatment
03:04 AM	Vitals
03:04 AM	Treatment
03:10 AM	Treatment
03:10 AM	Vitals
03:10 AM	Treatment
03:10 AM	Vitals
03:59 AM	Treatment
03:59 AM	Vitals
04:55 AM	Vitals
05:00 AM	Vitals
05:16 AM	Treatment
05:55 AM	Treatment
05:55 AM	Vitals
06:02 AM	Purchase
07:01 AM	Treatment
07:01 AM	Vitals
07:13 AM	Treatment
07:13 AM	Vitals
07:14 AM	Vitals
07:14 AM	Treatment
07:14 AM	Treatment
07:14 AM	Vitals
07:21 AM	Vitals
07:28 AM	Treatment
07:28 AM	Vitals
08:11 AM	Purchase
08:12 AM	Treatment
08:12 AM	Vitals
08:14 AM	Purchase
08:31 AM	UserForm
09:06 AM	Treatment
09:06 AM	Vitals
09:06 AM	Treatment
09:06 AM	Vitals
09:15 AM	UserForm
09:43 AM	Purchase
09:43 AM	Purchase
09:44 AM	Purchase
09:44 AM	Purchase
09:59 AM	Treatment

B6

B6

Client: **B6**
Patient:

Patient History

09:59 AM	Vitals
10:06 AM	Purchase
10:06 AM	Treatment
10:10 AM	Purchase
10:34 AM	Treatment
10:34 AM	Vitals
11:24 AM	Treatment
11:25 AM	Treatment
11:25 AM	Vitals
11:25 AM	Purchase
11:27 AM	Treatment
11:27 AM	Treatment
11:27 AM	Vitals
11:27 AM	Treatment
11:27 AM	Vitals
11:50 AM	Treatment
11:50 AM	Vitals
01:22 PM	Treatment
01:22 PM	Vitals
01:26 PM	Treatment
01:26 PM	Vitals
01:55 PM	Treatment
01:55 PM	Vitals
02:24 PM	Prescription
02:26 PM	Prescription
02:27 PM	Prescription
02:29 PM	Prescription
02:34 PM	Purchase
02:55 PM	Appointment
03:31 PM	Treatment
03:31 PM	Vitals
03:34 PM	Treatment
03:34 PM	Vitals
03:34 PM	Treatment
03:34 PM	Treatment
03:34 PM	Vitals
03:57 PM	Treatment
03:57 PM	Vitals
10:54 AM	UserForm
11:01 AM	Treatment
11:02 AM	Purchase
11:24 AM	Vitals
11:53 AM	Purchase
12:10 PM	UserForm

B6

B6

Cardio Discharge - DCM CHF Form Saved to Record

Client:
Patient:

B6

Patient History

B6	12:51 PM	Prescription	B6
	12:51 PM	Purchase	
	02:36 PM	Prescription	
	02:36 PM	Purchase	
	09:30 AM	Prescription	
	09:32 AM	Purchase	
	03:55 PM	Prescription	
	03:55 PM	Purchase	
	02:35 AM	Vitals	
	02:35 AM	Vitals	
	02:35 AM	Vitals	
	03:34 AM	UserForm	
	04:09 AM	Treatment	
	05:10 AM	Purchase	
	05:11 AM	Purchase	
	05:11 AM	Purchase	
	05:12 AM	Vitals	
	05:12 AM	Purchase	
	05:13 AM	Purchase	
	05:19 AM	Treatment	
	05:25 AM	UserForm	
	10:56 AM	Appointment	
	02:06 PM	UserForm	
	02:15 PM	Vitals	
	02:33 PM	Treatment	
	02:36 PM	Purchase	
	02:48 PM	UserForm	
	03:07 PM	Purchase	
	03:52 PM	Prescription	
	03:56 PM	Prescription	
04:04 PM	Purchase		

Notice of Patient Admit

Date: [B6] 5:41:03 PM
Referring Doctor: [B6]
Client Name: [B6]
Patient Name: [B6]

Case No: [B6]

Dear Colleague,

Your patient presented to our Emergency service. Please make note of the following information to facilitate communication with our team.

The attending doctor is: [B6]
The reason for admission to the FHSA is: Suspect DCM.

If you have any questions regarding this particular case, please call 508-887-4988 to reach the Cardiology Service. Information is updated daily, by noon.

Thank you for your referral to our Emergency Service.

Cummings
Veterinary Medical Center
AT TUFTS UNIVERSITY

Foster Hospital for Small Animals
55 Willard Street
North Grafton, MA 01536
Telephone (508) 839-5395
Fax (508) 839-7951
<http://vetmed.tufts.edu/Daisy>

B6

B6 Female (Spayed)
Canine Golden Retriever Cream
B6

Daily Update From the Cardiology Service

Today's date: **B6**
Dear **B6**

Thank you for referring patients to the Foster Hospital for Small Animals at the Cummings School of Tufts University.

Your patient **B6** was admitted and is being cared for by the Cardiology Service.

Today, **B6**

- is in stable condition
- is still in the oxygen cage
- is critically ill
- might be discharged from the hospital today

Today's treatments include

- bloodwork planned/pending
- echocardiography
- cardiac catheter procedure planned
- treatment for DCM (primary vs secondary dietary induced)
- ongoing treatment for thrombosis
- ongoing treatment for arrhythmia

Additional plans:

Please allow 3-5 business days for reports to be finalized upon patient discharge.

Please call (508) 887-4696 before 5pm or email us at cardiovet@tufts.edu if you have any questions. Thank you!

Attending Clinician: **B6**
Faculty Clinician: **B6** DVM,DACVIM
Senior student:

Cummings
Veterinary Medical Center
AT TUFTS UNIVERSITY

Foster Hospital for Small Animals
55 Willard Street
North Grafton, MA 01536
Telephone (508) 839-5395
Fax (508) 839-7951
<http://vetmed.tufts.edu/>

B6

B6

Female (Spayed)

Canine Golden Retriever Cream

B6

B6

Dear **B6**,

Thank you for referring **B6** with their pet **B6**

If you have any questions, or concerns, please contact us at 508-887-4988.

Thank you,

B6

Cummings
Veterinary Medical Center
AT TUFTS UNIVERSITY

Foster Hospital for Small Animals
55 Willard Street
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Telephone (508) 839-5395
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<http://vetmed.tufts.edu/>

B6

B6 Female (Spayed)
Canine Golden Retriever Cream
B6

B6

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55 Willard Street
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Telephone (508) 839-5395
Fax (508) 839-7951
<http://vetmed.tufts.edu/>

B6

B6

Female (Spayed)

Canine, Golden Retriever, Cream

B6

B6

Dear **B6**,

Tonight **B6** presented to the ER for evaluation of an acutely developed dry non productive cough. She has a history of DCM and is being managed by our Cardiology Service for it. The owners are also concerned that she ingested foreign material on Christmas and her cough may be related to it.

TFAST revealed significant RV enlargement. Thoracic radiographs showed cardiac enlargement without pulmonary edema. Abdominal radiographs (insisted to be performed by owner) were unremarkable.

Hospitalization was recommended so she can be re-evaluated by Cardiology ASAP, but ultimately declined. She was **B6** discharged.

If you have any questions, or concerns, please contact us at 508-887-4988.

Thank you,

B6

DVM

Cummings
Veterinary Medical Center
AT TUFTS UNIVERSITY

Foster Hospital for Small Animals
55 Willard Street
North Grafton, MA 01536
Telephone (508) 839-5395
Fax (508) 839-7951
<http://vetmed.tufts.edu/>

B6

B6

Female (Spayed)

Canine, Golden Retriever, Cream

B6

B6

Dear **B6**

Thank you for referring **B6** with their pet **B6**

If you have any questions, or concerns, please contact us at 508-887-4988.

Thank you,

B6 DVM (Cardiology)



Tufts Cummings School Of Veterinary Medicine

200 Westboro Road
North Grafton, MA 01536

DUPLICATE

Name/DOB:	B6	Sex:		Provider:	B6
Patient ID:		Age:	6	Order Location:	V320559: Investigation into
Phone number:		Species:	Canine	Sample ID:	1902050104
Collection Date:	B6 12:44 PM	Breed:	Irish Wolfhound		
Approval date:	2:27 PM				

CBC, Comprehensive, Sm Animal (Research)

TEST	TIME	RESULT	REF. RANGE/FEMALES
SLOPEZ			
WBC (ADVIA)			4.40-15.10 K/uL
RBC (Advia)			5.80-8.50 M/uL
Hemoglobin (ADVIA)			13.3-20.5 g/dL
Hematocrit (Advia)			39-55 %
MCV (ADVIA)			64.5-77.5 fL
MCH (ADVIA)			21.3-25.9 pg
CHCM			
MCHC (ADVIA)			31.9-34.3 g/dL
RDW (ADVIA)			11.9-15.2
Platelet Count (Advia)			173-486 K/uL
B6	2:26 PM	platelets per 100x field (estimated count of 200,000-500,000/uL)	
Mean Platelet Volume (Advia)			8.29-13.20 fl
B6	1:09 PM	Platelet clumps (if present) and sample age (greater than 4 hours) can result in a falsely increased MPV.	
Platelet Crit			0.129-0.403 %
B6	1:09 PM	Platelet Crit is invalid when clumped platelets are present. Interpretation of PltCt is unclear in species other than canines.	
PDW			
Reticulocyte Count (Advia)			0.20-1.60 %
Absolute Reticulocyte Count (Advia)			14.7-113.7 K/uL
CHr			
MCVr			

Microscopic Exam of Blood Smear (Advia)

TEST	TIME	RESULT	REF. RANGE/FEMALES
SLOPEZ			
Seg Neuts (%)			43-86 %
Lymphocytes (%)			7-47 %
Monocytes (%)			1-15 %
Eosinophils (%)			0-16 %
Seg Neutrophils (Abs) Advia			2.800-11.500 K/uL
Lymphs (Abs) Advia			1.00-4.80 K/uL
Mono (Abs) Advia			0.10-1.50 K/uL
Eosinophils (Abs) Advia			0.00-1.40 K/uL
WBC Morphology			
Poikilocytosis			

Research Chemistry Profile - Small Animal (Cobas)

Sample ID: 1902050104/1
This report continues... (Final)

Reviewed by: _____



Tufts Cummings School Of Veterinary Medicine

200 Westboro Road
North Grafton, MA 01536

DUPLICATE

Name/DOB:	B6	Sex: F	Provider:	B6
Patient ID:		Age: 6	Order Location:	V320559: Investigation into
Phone number:		Species: Canine	Sample ID:	1902050104
Collection Date:	B6 12:44 PM	Breed: Irish Wolfhound		
Approval date:	2:27 PM			

Research Chemistry Profile - Small Animal (Cobas) (cont'd)

SMACHUNSKI		Ref. Range/Females
Glucose		67-135 mg/dL
Urea		8-30 mg/dL
Creatinine		0.6-2.0 mg/dL
Phosphorus		2.6-7.2 mg/dL
Calcium 2		9.4-11.3 mg/dL
Magnesium 2+		1.8-3.0 mEq/L
Total Protein		5.5-7.8 g/dL
Albumin		2.8-4.0 g/dL
Globulins	L	2.3-4.2 g/dL
A/G Ratio	H	0.7-1.6
Sodium		140-150 mEq/L
Chloride		106-116 mEq/L
Potassium		3.7-5.4 mEq/L
tCO2(Bicarb)		14-28 mEq/L
AGAP		8.0-19.0
NA/K		29-40
Total Bilirubin		0.10-0.30 mg/dL
Alkaline Phosphatase		12-127 U/L
GGT		0-10 U/L
ALT		14-86 U/L
AST		9-54 U/L
Creatine Kinase		22-422 U/L
Cholesterol		82-355 mg/dL
Triglycerides		30-338 mg/dl
Amylase	L	409-1250 U/L
Osmolality (calculated)		291-315 mmol/L
Comments (Chemistry)		

B6

From: Rotstein, David </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0A3B17EBFCF14A6CB8E94F322906BADD-DROTSTEI>
To: Carey, Lauren; Ceric, Olgica; Glover, Mark; Jones, Jennifer L; Nemser, Sarah; Palmer, Lee Anne; Peloquin, Sarah; Queen, Jackie L; Rotstein, David
Sent: 6/12/2019 2:22:59 PM
Subject: Freeman DCM Report Updates
Attachments: Blue Buffalo Life Protection Formula Adult Chicken Recipe Grain-Free Dry Dog Food **B6**
B6 - EON-385697; Blue Buffalo Life Protection Formula Adult Chicken Recipe Grain-Free Dry Dog Food; **B6** - EON-390198; Earthborn grain free weight management dry: Lisa Freeman - EON-370708; Earthborn grain free weight management dry: Lisa Freeman - EON-390207; **B6** Pro Form Lamb and Rice Adult Maintenance Dry: Lisa Freeman - EON-380706; **B6** Pro Form Lamb and Rice Adult Maintenance Dry: Lisa Freeman - EON-390164; Pure Balance Salmon and Pea dry: Lisa Freeman - EON-370760; Pure Balance Salmon and Pea dry: Lisa Freeman - EON-390200; Taste of the Wild Sierra Mountain dry: Lisa Freeman - EON-376361; Taste of the Wild Sierra Mountain Dry: Lisa Freeman - EON-380714; Taste of the Wild Sierra Mountain Dry: Lisa Freeman - EON-390196; Taste of the Wild Sierra Mountain dry: Lisa Freeman - EON-390197; Wellness Core grain-free ocean fish dry-Wellness core grain free turkey: Lisa Freeman - EON-380742; Wellness Core grain-free ocean fish dry-Wellness core grain free turkey: Lisa Freeman - EON-390201; Wellness CORE Grain-Free Ocean Whitefish dry-Wellness Core grain free turkey: Lisa Freeman - EON-380743; Wellness CORE Grain-Free Ocean Whitefish dry-Wellness Core grain free turkey: Lisa Freeman - EON-380745; Wellness CORE Grain-Free Ocean Whitefish dry-Wellness Core grain free turkey: Lisa Freeman - EON-390203; Wellness CORE Grain-Free Ocean Whitefish dry-Wellness Core grain free turkey: Lisa Freeman - EON-390205

David Rotstein, DVM, MPVM, Dipl. ACVP
CVM Vet-LIRN Liaison
CVM OSC/DC/CERT
7519 Standish Place
240-506-6763 (BB)



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Medical Record for 4/17/2019

Client: **B6**
Address: **B6**

Patient: **B6**
Breed: Golden Retriever
DOB: **B6**

Species: Canine
Sex: Male
(Neutered)

Home Phone: **B6**
Work Phone:
Cell Phone: **B6**

Referring Information

B6
Client: **B6**
Patient:

Initial Complaint:

Cardiology New - possibly going to enroll in DCM study

SOAP Text **B6** 1:32PM - Rush, John

Disposition/Recommendations

Client:
Patient:

B6

Client: **B6**
 Patient: **B6**

Cummings
Veterinary Medical Center
 AT TUFTS UNIVERSITY

Foster Hospital for Small Animals
 55 Willard Street
 North Grafton, MA 01536
 (508) 839-5395

Client: **B6**
 Veterinarian:
 Patient ID: **B6**
 Visit ID:

Patient: **B6**
 Species: Canine
 Breed: Golden Retriever
 Sex: Male (Neutered)
 Age: **B6** Years Old

Lab Results Report

CBC, Comprehensive, Sm Animal (Re **B6 3:28:16 PM Accession ID: **B6**)**

Test	Results	Reference Range	Units
RDW (ADVIA)	B6	11.9 - 15.2	
MPV (ADVIA)		8.29 - 13.2	fl
RETICS (ABS) ADVIA		14.7 - 113.7	K/uL
PDW		0 - 0	%
MCVR		0 - 0	fl
WBC (ADVIA)		4.4 - 15.1	K/uL
HGB(ADVIA)		13.3 - 20.5	g/dL
HCT(ADVIA)		39 - 55	%
CHR		0 - 0	pg
MCHC(ADVIA)		31.9 - 34.3	g/dL
CHCM		0 - 0	g/dl
PLT(ADVIA)		173 - 486	K/uL
MCH(ADVIA)		21.3 - 25.9	pg
RBC(ADVIA)		5.8 - 8.5	M/uL
MCV(ADVIA)		64.5 - 77.5	fL
RETIC(ADVIA)		0.2 - 1.6	%
PLTCRT		0.129 - 0.403	%

Microscopic Exam of Blood Smear (A **B6 3:28:16 PM Accession ID: **B6**)**



B6

Client: **B6**
 Patient: **B6**

Test	Results	Reference Range	Units
WBC MORPHOLOGY		0 - 0	
No Morphologic Abnormalities			
SEGS (AB)ADVIA	B6	2.8 - 11.5	K/uL
SEGS%		43 - 86	%
RBC MORPHOLOGY		0 - 0	
No morphologic abnormalities			
L YMPHS%		7 - 47	%
L YMPHS (ABS)ADVIA		1 - 4.8	K/uL
MONOS (ABS)ADVIA		0.1 - 1.5	K/uL
MONOS%		1 - 15	%
EOS%		0 - 16	%
EOS (ABS)ADVIA		0 - 1.4	K/uL

Research Chemistry Profile - Small A **B6** 3:28:16 PM **Accession ID: B6**

Test	Results	Reference Range	Units
SODIUM	B6	140 - 150	mEq/L
ALT		14 - 86	U/L
UREA		8 - 30	mg/dL
POTASSIUM		3.7 - 5.4	mEq/L
ALK PHOS		12 - 127	U/L
AGAP		8 - 19	
A/G RATIO		0.7 - 1.6	
CREATININE		0.6 - 2	mg/dL
CHLORIDE		106 - 116	mEq/L
TRIGLYCERIDES		30 - 338	mg/dl
ALBUMIN		2.8 - 4	g/dL
MAGNESIUM 2+		1.8 - 3	mEq/L
T BILIRUBIN		0.1 - 0.3	mg/dL
GLUCOSE		67 - 135	mg/dL
NA/K		29 - 40	
PHOSPHORUS		2.6 - 7.2	mg/dL
AST		9 - 54	U/L
CK		22 - 422	U/L
AMYLASE		409 - 1250	U/L
GGT		0 - 10	U/L
OSMOLALITY (CALCULATED)	291 - 315	mmol/L	



Client: **B6**
Patient: **B6**

CHOLESTEROL	B6	82 - 355	mg/dL
tCO2 (BICARB)	B6	14 - 28	mEq/L
CALCIUM2	B6	9.4 - 11.3	mg/dL
GLOBULINS	B6	2.3 - 4.2	g/dL
T. PROTEIN	B6	5.5 - 7.8	g/dL



5/29

B6

Printed Monday, April 22, 2019

Client: **B6**
Patient: **B6**

RX B6 10mg give Tab 1 in AM, 1/2 in PM

Tufts University
Foster Hospital for Small Animals
Hospital for Large Animals
55 Willard Street • North Grafton, MA 01536 • (508) 839-5395

B6

Signature

John Rush DVM

Please Print

DEA #: _____

License #: _____

INTERCHANGE IS MANDATED UNLESS THE
PRACTITIONER INDICATES "NO SUBSTITUTION"
IN ACCORDANCE WITH THE LAW

[Empty rectangular box for stamp or additional information]

Client: **B6**
 Patient: **B6**

Diet Hx: **B6**

#44016

CARDIOLOGY DIET HISTORY FORM
 Please answer the following questions about your pet

Pet's name: **B6** Owner's name: **B6** Today's date: **B6**

1. How would you assess your pet's appetite? (mark the point on the line below that best represents your pet's appetite)
 Example: **Poor** _____ | _____ **Excellent**
Poor _____ | _____ **Excellent**

2. Have you noticed a change in your pet's appetite over the last 1-2 weeks? (check all that apply)
 Eats about the same amount as usual Eats less than usual Eats more than usual
 Seems to prefer different foods than usual Other _____

3. Over the last few weeks, has your pet (check one)
 Lost weight Gained weight Stayed about the same weight Don't know

1. Please list below ALL pet foods, people food, treats, snack, dental chews, rawhides, and any other food item that your pet currently eats and that you have fed in the last 2 years.

Please provide enough detail that we could go to the store and buy the exact same food - examples are shown in the table

Food (include specific product and flavor)	Form	Amount	How often?	Dates fed
Nutro Grain Free Chicken, Lentil, & Sweet Potato Adult	dry	1 1/2 cup	2x/day	Jan 2016-present
85% lean hamburger	microwaved	3 oz	1x/week	June -Aug 2016
Pupperoni original beef flavor	treat	1/2	1x/day	Sept 2016-present
Rawhide	treat	6 inch twist	1x/week	Dec 2018-present
B. Buf. - Regular Turkey & Chicken	Dry	1 1/2 C	2x/day	2/10 - 3/8
Blue Buffalo - grain free chicken	Dry	1 1/2 C	2x/day	8/1/2018 to 8/2018
Blue Buf. - Limited ingredient dry-chicken	Dry	1 1/2 C	2x/day	9/2018 - present

*Any additional diet information can be listed on the back of this sheet

2. Do you give any dietary supplements to your pet (for example: vitamins, glucosamine, fatty acids, or any other supplements)? Yes No If yes, please list which ones and give brands and amounts:

	Brand/Concentration	Amount per day
Taurine <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	_____	_____
Carnitine <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	_____	_____
Antioxidants <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	_____	_____
Multivitamin <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	_____	_____
Fish oil <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	_____	_____
Coenzyme Q10 <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	_____	_____
Other (please list): Example: Vitamin C	Nature's Bounty	500 mg tablets - 1 per day

3. How do you administer pills to your pet?
 I do not give any medications
 I put them directly in my pet's mouth without food
 I put them in my pet's dog/cat food
 I put them in a Pill Pocket or similar product
 I put them in foods (list foods): piece of chicken

Client: **B6**
 Patient: **B6**

Research cbc/chem **B6**



Tufts Cummings School Of Veterinary Medicine

200 Westboro Road
 North Grafton, MA 01536

DUPLICATE

Name/DOB:	B6	Sex:	CM	Provider:	Dr. John Rush
Patient ID:	B6	Age:	12	Order Location:	Foster Hospital for Small Animals
Phone number:		Species:	Canine	Sample ID:	1904170138
Collection Date:	B6 3:28 PM	Breed:	Golden Retriever		
Approval date:	B6 6:15 PM				

CBC, Comprehensive, Sm Animal (Research)

SMACHUNSKI		Ref. Range/Males
WBC (ADVIA)	B6	4.40-15.10 K/uL
RBC (Advia)	B6	5.80-8.50 M/uL
Hemoglobin (ADVIA)	B6	13.3-20.5 g/dL
Hematocrit (Advia)	B6	39-55 %
MCV (ADVIA)	B6	64.5-77.5 fL
MCH (ADVIA)	B6	21.3-25.9 pg
CHCM	B6	
MCHC (ADVIA)	B6	31.9-34.3 g/dL
RDW (ADVIA)	B6	11.9-15.2
Platelet Count (Advia)	B6	173-486 K/uL
B6 6:15 PM	B6 plts per 100x field (estimated count of 90,000-180,000/uL)	
Mean Platelet Volume (Advia)	B6	8.29-13.20 fl
B6 4:15 PM	Platelet clumps (if present) and sample age (greater than 4 hours) can result in a falsely increased MPV.	
Platelet Crit	B6	0.129-0.403 %
B6 4:15 PM	Platelet Crit is invalid when clumped platelets are present. Interpretation of PltCt is unclear in species other than canines.	
PDW	B6	
Reticulocyte Count (Advia)	B6	0.20-1.60 %
Absolute Reticulocyte Count (Advia)	B6	14.7-113.7 K/uL
CHr	B6	
MCVr	B6	

Microscopic Exam of Blood Smear (Advia)

SMACHUNSKI		Ref. Range/Males
Seg Neuts (%)	B6	43-86 %
Lymphocytes (%)	B6	7-47 %
Monocytes (%)	B6	1-15 %
Eosinophils (%)	B6	0-16 %
Seg Neutrophils (Abs) Advia	B6	2.800-11.500 K/uL
Lymphs (Abs) Advia	B6	1.00-4.80 K/uL
Mono (Abs) Advia	B6	0.10-1.50 K/uL
Eosinophils (Abs) Advia	B6	0.00-1.40 K/uL
WBC Morphology	No Morphologic Abnormalities	
RBC Morphology	No morphologic abnormalities	

Research Chemistry Profile - Small Animal (Cobas)

Sample ID: 1904170138/1
 This report continues... (Final)

Reviewed by: _____

Client: **B6**
Patient: **B6**

Research cbc/chem **B6**



Tufts Cummings School Of Veterinary Medicine

200 Westboro Road
North Grafton, MA 01536

DUPLICATE

Name/DOB:	B6	Sex:	CM	Provider:	Dr. John Rush
Patient ID:		Age:	12	Order Location:	Foster Hospital for Small Animals
Phone number:		Species:	Canine	Sample ID:	1904170138
Collection Date:	B6 3:28 PM	Breed:	Golden Retriever		
Approval date:	6:15 PM				

Research Chemistry Profile - Small Animal (Cobas) (cont'd)

		Ref. Range/Males
SMACHUNSKI		
Glucose		67-135 mg/dL
Urea		8-30 mg/dL
Creatinine		0.6-2.0 mg/dL
Phosphorus		2.6-7.2 mg/dL
Calcium 2		9.4-11.3 mg/dL
Magnesium 2+	L	1.8-3.0 mEq/L
Total Protein		5.5-7.8 g/dL
Albumin		2.8-4.0 g/dL
Globulins		2.3-4.2 g/dL
A/G Ratio		0.7-1.6
Sodium		140-150 mEq/L
Chloride		106-116 mEq/L
Potassium	B6	3.7-5.4 mEq/L
tCO2(Bicarb)		14-28 mEq/L
AGAP		8.0-19.0
NA/K		29-40
Total Bilirubin		0.10-0.30 mg/dL
Alkaline Phosphatase		12-127 U/L
GGT		0-10 U/L
ALT		14-86 U/L
AST		9-54 U/L
Creatine Kinase		22-422 U/L
Cholesterol		82-355 mg/dL
Triglycerides		30-338 mg/dl
Amylase		409-1250 U/L
Osmolality (calculated)		291-315 mmol/L

Sample ID: 1904170138/2
REPRINT: Orig. printing on **B6** (Final)

Reviewed by: _____
Page 2

Client: **B6**
Patient: **B6**

B6 NT-proBNP **B6**

B6

Client: **B6** Patient: **B6**

Client: **B6**
Patient: **B6**
Species: CANINE
Breed: GOLDEN_RETRIEVE
Gender: MALE NEUTERED
Age: 12Y

Date: **B6**
Requisition #: **B6**
Accession: **B6**
Ordered by: RUSH

B6
TUFTS UNIVERSITY
200 WESTBORO RD
NORTH GRAFTON, Massachusetts 01536
508-839-5395
Account #88933

CARDIOPET proBNP CANINE

Test	Result	Reference Range	Low	Normal	High
CARDIOPET proBNP -CANINE	B6	0 - 900 pmol/L	HIGH		B6

Comments:
B6

Please note: Complete interpretive comments for all concentrations of cardiopet proBNP are available in the online directory of services. Serum specimens received at room temperature may have decreased NT-proBNP concentrations.

Client: **B6**
Patient:

Vitals Results

B6	1:37:54 PM	Weight (kg)	38.0000
-----------	------------	-------------	---------

Client: **B6**
Patient:

ECG from Cardio

B6

B6

2:29:36 PM

Page 1 of 2

Tufts University
Tufts Cummings School of Vet Med
Cardiology

12-lead Standard Placement

B6

Client:
Patient:

B6

ECG from Cardio

B6

B6

2:29:36 PM

Page 2 of 2

Tufts University
Tufts Cummings School of Vet Med
Cardiology

B6

Client: **B6**
Patient:

ECG from Cardio

B6

B6 2:32:10 PM

Tufts University
Tufts Cummings School of Vet Med
Cardiology

B6

Client: **B6**
Patient: **B6**

ECG from Cardio

B6

B6

2:34:20 PM

Tufts University
Tufts Cummings School of Vet Med
Cardiology

B6

Client: **B6**
Patient:

ECG from Cardio

B6

B6

2:34:46 PM

Page 1 of 2

Tufts University
Tufts Cummings School of Vet Med
Cardiology

12 Lead, Standard Placement

B6

Client: **B6**
Patient:

ECG from Cardio

B6

B6 2:34:46 PM Page 2 of 2
Tufts University
Tufts Cummings School of Vet Med
Cardiology

B6

Client:
Patient: **B6**

B6 rads

B6

Client: **B6**
Patient:

Patient History

B6	01:32 PM	UserForm	B6
	01:37 PM	Vitals	
	02:00 PM	Treatment	
	02:34 PM	Purchase	
	02:34 PM	Purchase	
	02:34 PM	Purchase	
	02:45 PM	Purchase	
	02:45 PM	Purchase	
	03:14 PM	UserForm	
	03:15 PM	Prescription	
	03:16 PM	Prescription	
	03:20 PM	Purchase	
	03:49 PM	Prescription	
	03:51 PM	Email	

Discharge Instructions

Patient

Name: B6

Species: Canine

Gold Male (Neutered) Golden Retriever

Birthdate: B6

Owner

Name: B6

Address: B6

Patient ID: B6

Attending Cardiologist:

John E. Rush DVM, MS, DACVIM (Cardiology), DACVECC

B6

Cardiology Resident:

B6

Cardiology Technician:

B6

Student:

Admit Date: B6 1:19:29 PM

Discharge Date: B6

Diagnoses: Chronic valvular disease with mitral regurgitation, Reduced contractile function/myocardial failure, pericardial effusion (small volume), congestive heart failure with pulmonary edema (suspected), atrial and ventricular arrhythmias

Clinical findings:

Your dog has a leak at one of the heart valves, the mitral valve, and this leak has resulted in a heart murmur and enlargement of the heart. This problem with the heart valve is a common one in dogs, due to aging changes to the valve that result in thickening and a subsequent leak of the valve. B6 also had reduced contractile function of the heart - this could be just related to end stage heart disease from the leaky valve, or may be in part related to a limited ingredient diet. The heart enlargement has now progressed to the point where fluid is backing up into the lungs causing pulmonary edema, a condition called congestive heart failure. We also found some irregular heart beats but do not seem to be frequent enough to warrant treatment at this time. However, they may eventually lead to collapse (syncope). We will re-assess the addition of this medication at the next recheck appointment.

There is a small amount of fluid around the heart (pericardial effusion) - we suspect this is due to heart failure, and we cannot see a mass that might have cause the fluid, but sometimes there is a small mass we cannot find.

We cannot do anything to change the thickening or leak at the valve, but we can use cardiac medications and some changes to the diet to make B6 comfortable and have him breathing easier. Unfortunately, this is a progressive disease and the treatment options cannot reverse the damage to the valve.

Diagnostic test results:

- o **Chest radiograph (x-ray) findings:** We did not have access to the chest x-ray at the time of the cardiac exam.
- o **Echocardiogram findings:** The left atrium and left ventricle are very enlarged, with a large leak at the mitral valve. The vigor of contraction of the heart is reduced compared to most dogs with mitral valve disease. Slight fluid build up in the sac surrounding the heart (the pericardium).
- o **ECG findings:** The ECG has frequent premature heart beats (arrhythmia) from both the upper chambers and the lower chambers of the heart.
- o **Labwork findings:** Bloodwork is pending and we will call with results of these tests in a few days.

Monitoring at home:

We would like you to monitor **B6** breathing rate and effort at home, ideally during sleep or at a time of rest. The doses of drugs will be adjusted based on the breathing rate and effort. In general, most dogs with heart failure that is well controlled have a breathing rate at rest of less than 35 breaths per minute. In addition, the breathing effort, noted by the amount of belly wall motion used for each breath, is fairly minimal if heart failure is controlled. An increase in breathing rate or effort will usually mean that you should give an extra dose of furosemide (Lasix). If difficulty breathing is not improved within 30-60 minutes after giving extra furosemide then we recommend that a recheck exam be scheduled and/or that **B6** be evaluated by an emergency clinic. There are instructions for monitoring breathing, and a form to help keep track of breathing rate and drug doses, on the Tufts HeartSmart web site (<http://vet.tufts.edu/heartsmart/at-home-monitoring/>). We also want you to watch for weakness or collapse, a reduction in appetite, worsening cough, or distention of the belly as these findings indicate that we should do a recheck examination. If you notice an episode of collapse, it is okay to help the dog get back up; however, most dogs will get up on their own in about 20 minutes. If an episode of collapse occurs, we would like to know about it right away.

Recommended Medications:



Diet suggestions:

Dogs with heart failure accumulate more fluid in their body if they eat large amounts of sodium (salt). Sodium can be found in all foods, but some foods are lower in sodium than others. Many treats, most people foods, and the supplements used to give pills often have more sodium than is desirable - a sheet that has suggestions for low sodium treats can be found on the HeartSmart web site. In addition, your dog's usual diet may have more sodium than recommended - we want your dog to eat their usual diet for the first 5 to 10 days so we can make sure they are tolerating medications well, but after that time

we would recommend slowly introducing one of the lower sodium diets on the HeartSmart list (25% of the new diet and 75% old diet for 2-3 days, then 50:50, etc.). Hopefully you can find a diet on the list that B6 likes to eat. Alternatively, you can research the amount of sodium in your dog's current diet to ensure that the sodium content is similar to those on the list. The HeartSmart web site also has some information on supplements such as fish oil, taurine, and other supplements that you might have questions about (<http://vet.tufts.edu/heartsmart/diet/>).

- o The FDA is currently investigating an apparent association between diet and a type of heart disease called dilated cardiomyopathy. The exact cause is still unclear, but it appears to be associated with boutique diets and those containing exotic ingredient or are grain-free. Therefore, we are currently recommending that dogs do not eat these types of diets.
- o We recommend switching B6 to commercial diet made by a well-established company that is not grain-free and does not contain any exotic ingredients, such as kangaroo, duck, lamb, venison, lentils, peas, beans, buffalo, tapioca, barley, and chickpeas.
- o The FDA issued a statement regarding this issue (<https://www.fda.gov/AnimalVeterinary/NewsEvents/CVMUpdates/ucm613305.htm>) and a recent article published by Dr. Lisa Freeman on the Cummings School's Petfoodology blog can further explain these findings (<http://vetnutrition.tufts.edu/2018/06/a-broken-heart-risk-of-heart-disease-in-boutique-or-grain-free-diets-and-exotic-ingredients/>).
- o Our nutritionists have compiled a list of dog foods that are good options for dogs with heart disease.

Dry Food Options:

Royal Canin Early Cardiac (veterinary diet)

Royal Canin Boster

Purina Pro Plan Adult Weight Management

Purina Pro Plan Bright Mind Adult Small Breed Formula

Canned Food Options:

Hill's Science Diet Adult 1-6 Healthy Cuisine Roasted Chicken, Carrot, and Spinach Stew

Royal Canin Mature 8+

If your dog has special nutritional needs or requires a homecooked diet, we recommend you schedule an appointment with our nutritionists (508-887-4696).

Exercise Recommendations:

For the first 7 to 10 days after starting medications for heart failure we recommend very limited activity. Leash walk only is ideal, and short walks to start. Once heart failure is better controlled then slightly longer walks are acceptable. If B6 is lagging behind or needs to stop then this was too long a walk and shorter walks are advised. High energy activities (repetitive ball chasing, running fast off a leash) are generally not advised at this stage of heart failure.

Recheck Visits: A recheck visit is scheduled for B6 at B6 at noon. At this visit we will want to recheck B6 breathing effort and heart function, do a blood test to recheck kidney values, and recheck an ECG. A recheck echocardiogram is recommended in 3 months. Your other dog B6 should get a blood test at your local veterinarian's office to check for levels of NT-proBNP. This is a protein that is released by the heart when it is stretched. If this value is normal, there is a low chance that she has a cardiac disease. However, if this value is at least moderately elevated, we might like to take a look at her. Please send us the result when you receive it.

Thank you for entrusting us with B6 care. Please contact our Cardiology liaison at (508)-887-4696 or email us at cardiovet@tufts.edu for scheduling and non-emergent questions or concerns.

Please visit our HeartSmart website for more information

<http://vet.tufts.edu/heartsmart/>

Prescription Refill Disclaimer:

For the safety and well-being of our patients, your pet must have had an examination by one of our veterinarians within the past year in order to obtain prescription medications.

Ordering Food:

Please check with your primary veterinarian to purchase the recommended diet(s). If you wish to purchase your food from us,

please call 7-10 days in advance (508-887-4629) to ensure the food is in stock. Alternatively, veterinary diets can be ordered from online retailers with a prescription/veterinary approval.

Clinical Trials:

Clinical trials are studies in which our veterinary doctors work with you and your pet to investigate a specific disease process or a promising new test or treatment. Please see our website: vet.tufts.edu/cvmc/clinical-studies

Case: B6

Owner: B6

Discharge Instructions

Cummings Veterinary Medical Center

AT TUFTS UNIVERSITY

Cardiology Liaison: 508-887-4696

B6

Patient ID: B6

B6

Canine

Years Old Male (Neutered) Golden Retriever

Gold

Cardiology Appointment Report ENROLLED IN DCM DIET STUDY

Date: B6

Attending Cardiologist:

John E. Rush DVM, MS, DACVIM (Cardiology), DACVECC (primary)

B6

Cardiology Resident:

B6

Cardiology Technician:

B6

Presenting Complaint:

Presented to rDVM for cough for a month. Went to two vets yesterday. Suspicion of pericardial effusion vs DCM. Took radiographs and showed enlarged heart. Started pimobendan yesterday.

Concurrent Diseases:

Pretty healthy dog. Occasional vomiting early on in life. Seasonal allergies

General Medical History:

Over last month has been slowing down. Eating less. Does not want to go upstairs with family.

Diet and Supplements:

Blue buffalo limited ingredient for about a year. Blue buffalo for first couple years of his life and started vomiting then switched to grain free. Switched to Blue Buffalo Chicken limited ingredient almost a year ago.

Cardiovascular History:

Prior CHF diagnosis?	NO
Prior heart murmur?	YES
Prior ATE?	NO
Prior arrhythmia?	NO
Monitoring respiratory rate and effort at home?	NO
Cough?	YES

Shortness of breath or difficulty breathing?

Maybe (panting has increased)

Syncope or collapse?

NO

Sudden onset lameness?

NO

Exercise intolerance?

NO

Current Medications Pertinent to CV System:

Heartgard chew

Flea and tick is seasonal

Pimobendan 10mg PO BID

Cardiac Physical Examination:

B6

Muscle condition:

Normal

Mild muscle loss

Moderate cachexia

Marked cachexia

Cardiovascular Physical Exam:

Murmur Grade:

None

I/VI

II/VI

III/VI

IV/VI

V/VI

VI/VI

Murmur location/description: Left apical murmur

Jugular vein:

Bottom 1/3 of the neck

Middle 1/3 of the neck

1/2 way up the neck

Top 2/3 of the neck

Arterial pulses:

Weak

Fair

Good

Strong

Bounding

Pulse deficits

Pulsus paradoxus

Other:

Arrhythmia:

None

Sinus arrhythmia

Premature beats

Bradycardia

Tachycardia

Gallop:

Yes

No

Intermittent

Pronounced

Other:

Pulmonary assessments:

Eupneic to

Mild dyspnea slightly blue hue to the

Pulmonary crackles

Wheezes

- tongue
- Marked dyspnea
- Normal *BY* sounds

- Upper airway stridor

Abdominal exam:

- Normal
- Hepatomegaly
- Abdominal distension

- Mild ascites
- Marked ascites

Problems:

Cardiac murmur, arrhythmia, cough, possible DCM vs pericardial disease

Diagnostic plan:

- Echocardiogram
- Chemistry profile
- ECG
- Renal profile
- Blood pressure

- Dialysis profile
- Thoracic radiographs
- NT-proBNP
- Troponin I
- Other tests:

B6

B6

Assessment and recommendations:

Advanced DMVD with myocardial failure. Large breed dogs are more predisposed to have worsening contractile function when affected by DMVD. However, there may also be a component of either DCM or diet-induced cardiomyopathy, so at this point it is unclear which would be the underlying cause of the systolic dysfunction. We believe that B6 is in mild CHF, B6

B6

Recommend switch diet to one of the diets listed in the discharge instruction; check with Dr. Freeman if the dog will not eat any of these. As some Golden Retrievers with diet-induced cardiomyopathy are taurine deficient and may respond to Taurine supplementation, (750 to 1000mg BID) Taurine should be started until have the levels results back. Recommend recheck blood work and ECG in 2 weeks. The arrhythmia might not be severe enough to require specific antiarrhythmic treatment today, but it is close, and the dog may be at risk of sudden death. If the arrhythmia is worse then we might star B6

Final Diagnosis:

- DMVD with severe LA enlargement;
- Decreased contractile function - r/o secondary to advanced DMVD vs. concomitant DCM vs. component of diet-induced DCM.

Heart Failure Classification Score:

ISACHC Classification:

- | | |
|-----------------------------|--|
| <input type="checkbox"/> Ia | <input checked="" type="checkbox"/> IIIa |
| <input type="checkbox"/> Ib | <input type="checkbox"/> IIIb |
| <input type="checkbox"/> II | |

ACVIM Classification:

- | | |
|-----------------------------|---------------------------------------|
| <input type="checkbox"/> A | <input checked="" type="checkbox"/> C |
| <input type="checkbox"/> B1 | <input type="checkbox"/> D |
| <input type="checkbox"/> B2 | |

M-Mode

IVSd	B6	cm
LVIDd		cm
LVPWd		cm
IVSs		cm
LVIDs		cm
LVPWs		cm
EDV(Teich)		ml
ESV(Teich)		ml
EF(Teich)		%
%FS		%

SV(Teich)
Max LA
TAPSE
EPSS

B6

ml
cm
cm
cm

M-Mode Normalized

IVSdN
LVIDdN
LVPWdN
IVSsN
LVIDsN
LVPWsN

B6

(0.290 - 0.520)
(1.350 - 1.730) !
(0.330 - 0.530)
(0.430 - 0.710) !
(0.790 - 1.140) !
(0.530 - 0.780)

2D

SA LA
Ao Diam
SA LA / Ao Diam
IVSd
LVIDd
LVPWd
EDV(Teich)
IVSs
LVIDs
LVPWs
ESV(Teich)
EF(Teich)
%FS
SV(Teich)
LV Major
LV Minor
Sphericity Index
LVld A4C
LVEDV MOD A4C
LVls A4C
LVESV MOD A4C
LVEF MOD A4C
SV MOD A4C
R-R
HR

B6

cm
cm

cm
cm
cm
ml
cm
cm
cm
ml
%
%
ml
cm
cm

cm
ml
cm
ml
%
ml
ms
BPM

Doppler

MR Vmax
MR maxPG
MV E Vel
MV DecT
MV Dec Slope
MV A Vel
MV E/A Ratio
E'
E/E'

B6

m/s
mmHg
m/s
ms
m/s
m/s

m/s

A'
S'
AV Vmax
AV maxPG
PV Vmax
PV maxPG
PRend Vmax
PRend PG
TR Vmax
TR maxPG

B6

m/s
m/s
m/s
mmHg
m/s
mmHg
m/s
mmHg
m/s
mmHg

Client: **B6**
Patient: **B6**

Recheck chem **B6**



Tufts Cummings School Of Veterinary Medicine

200 Westboro Road
North Grafton, MA 01536

Name/DOB: B6	Sex: CM	Provider: Dr. John Rush
Patient ID: B6	Age: 12	Order Location: V320559: Investigation into
Phone number:	Species: Canine	Sample ID: 1904300091
Collection Date: B6 12:52 PM	Breed: Golden Retriever	
Approval date: B6 1:33 PM		

Research Chemistry Profile - Small Animal (Cobas)

		Ref. Range/Males
CSTCYR		
Glucose		67-135 mg/dL
Urea		8-30 mg/dL
Creatinine		0.6-2.0 mg/dL
Phosphorus		2.6-7.2 mg/dL
Calcium 2		9.4-11.3 mg/dL
Magnesium 2+	L	1.8-3.0 mEq/L
Total Protein		5.5-7.8 g/dL
Albumin		2.8-4.0 g/dL
Globulins		2.3-4.2 g/dL
A/G Ratio		0.7-1.6
Sodium		140-150 mEq/L
Chloride		106-116 mEq/L
Potassium	B6	3.7-5.4 mEq/L
tCO2(Bicarb)		14-28 mEq/L
AGAP		8.0-19.0
NA/K		29-40
Total Bilirubin		0.10-0.30 mg/dL
Alkaline Phosphatase		12-127 U/L
GGT		0-10 U/L
ALT		14-86 U/L
AST		9-54 U/L
Creatine Kinase		22-422 U/L
Cholesterol		82-355 mg/dL
Triglycerides		30-338 mg/dl
Amylase		409-1250 U/L
Osmolality (calculated)		291-315 mmol/L

Sample ID: 1904300091/1
END OF REPORT (Final)

Reviewed by: _____

Client: **B6**
 Patient: **B6**

Diet Hx **B6**

CARDIOLOGY DIET HISTORY FORM
 Please answer the following questions about your pet

Pet's name **B6** Owner's name: **B6** Today's date: **B6**

1. How would you assess your pet's appetite? (mark the point on the line below that best represents your pet's appetite)

Example: **Poor** _____ | _____ **Excellent**
Poor _____ | _____ **Excellent**

2. Have you noticed a change in your pet's appetite over the last 1-2 weeks? (check all that apply)

Eats about the same amount as usual Eats less than usual Eats more than usual
 Seems to prefer different foods than usual Other **appetite has improved since he began meds**

3. Over the last few weeks, has your pet (check one)

Lost weight Gained weight Stayed about the same weight Don't know

1. Please list below ALL pet foods, people food, treats, snack, dental chews, rawhides, and any other food item that your pet currently eats and that you have fed in the last 2 years. - **Completed history last visit so I just included his current food here.**

Please provide enough detail that we could go to the store and buy the exact same food - examples are shown in the table

Food (include specific product and flavor)	Form	Amount	How often?	Dates fed
Nutro Grain Free Chicken, Lentil, & Sweet Potato Adult	dry	1 1/2 cup	2x/day	Jan 2016-present
85% lean hamburger	microwaved	3 oz	1x/week	June-Aug 2016
Pupperoni original beef flavor	treat	1/2	1x/day	Sept 2016-present
Rawhide	treat	6 inch twist	1x/week	Dec 2018-present
Pro Action Pro Plan Pro Plan weight management - few pieces pc chicken	dry	1/2 c	2 x day	Started 4/22 - present
Milkbone brand sm. dog biscuits	bone	few pc.	2 x daily	? - present
		1 pc.	3 x daily	? - present

*Any additional diet information can be listed on the back of this sheet

2. Do you give any dietary supplements to your pet (for example: vitamins, glucosamine, fatty acids, or any other supplements)? Yes No If yes, please list which ones and give brands and amounts:

	Brand/Concentration	Amount per day
Taurine <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No see file		
Camitine <input type="checkbox"/> Yes <input type="checkbox"/> No		
Antioxidants <input type="checkbox"/> Yes <input type="checkbox"/> No		
Multivitamin <input type="checkbox"/> Yes <input type="checkbox"/> No		
Fish oil <input type="checkbox"/> Yes <input type="checkbox"/> No		
Coenzyme Q10 <input type="checkbox"/> Yes <input type="checkbox"/> No		
Other (please list): Example: Vitamin C	Nature's Bounty	500 mg tablets - 1 per day

3. How do you administer pills to your pet?

I do not give any medications
 I put them directly in my pet's mouth without food
 I put them in my pet's dog/cat food
 I put them in a Pill Pocket or similar product
 I put them in foods (list foods): **small piece of chicken**

Client: **B6**
Patient: **B6**

Amino Acid Lab taurine panel **B6**

29882 OPL
OUP

Amino Acid Laboratory Sample Submission Form

Amino Acid Laboratory, 1089 Veterinary Medicine Drive Davis, Ca 95616

Telephone: 530-752-5058, Fax: 530-752-4698

Email: labs@vetmed.tufts.edu

www.vetmed.tufts.edu/labs/amino-acid-laboratory

B6
Canine
3:54 PM
SHIP w ICE PACKS, TAURINE
PANEL
Lithium Heparin
LubH

Veterinarian Contact: **B6**

Clinic/Company Name: Tufts Cummings School of Vet. Med. - Clinical Pathology Laboratory

Address: 200 Westboro Road, North Grafton MA 015369

Email: Clinpath@tufts.edu cardiovet@tufts.edu

Telephone: 508-887-4669 Fax: 508-839-7936

Billing Contact: **B6** Email: **B6**

Billing Contact Phone: **B6** Tax ID: _____

Patient Name: **B6** Species: Canine

Breed: Golden Ret. Owner's Name: **B6**

Current Diet: Blue Buffalo Chicken LID

Sample type: Plasma Whole Blood Urine Food Other _____

Test: Taurine Complete Amino Acids Other: _____

Taurine Results (lab use only)

Plasma: **B6** Whole Blood: **B6** Urine: _____ Food: _____

B6

	Plasma (nMol/ml)		Whole Blood (nMol/ml)	
	Normal Range	No known risk for deficiency	Normal Range	No known risk for deficiency
Cat	80-120	>40	300-600	>200
Dog	60-120	>40	200-350	>150

* Please note with the recent increase in the number of dogs screened for taurine deficiency, we are seeing dogs with values within the reference ranges (or above the "no known risk for deficiency range") yet are still exhibiting signs of cardiac disease. Veterinarians are welcome to contact our laboratory for assistance in evaluating your patient's results.

Client: **B6**
Patient:

Troponin 5/31/2019



Gastrointestinal Laboratory
Dr. J.M. Steiner
Department of Small Animal Clinical Sciences
Texas A&M University
4474 TAMU
College Station, TX 77843-4474



Website User ID: lisa.freeman@tufts.edu OF **B6**

GI Lab Assigned Clinic ID: 23523

Dr. Rush
Tufts Cummings School of Vet Med - Cardiology/Nutrition
200 Westboro Road
North Grafton, MA 01536
USA

Phone: 508 887 4696
Fax:
Animal Name: **B6**
Owner Name:
Species: Canine
Date Received: **B6**

Tufts Cummings School of Vet Med -
Cardiology/Nutrition Tracking Number:
444016

GI Lab Accession: **B6**

Test	Result	Reference Interval	Assay Date
Ultra-Sensitive Troponin I Fasting	B6 ng/mL	≤0.06	B6

B6

Comments:

GI Lab Contact Information

Phone: (979) 862-2861
Fax: (979) 862-2864

Email: g_ilab@cvm.tamu.edu
vetmed.tamu.edu/g_ilab

Client: **B6**
Patient: **B6**

Chem **B6**



Tufts Cummings School Of Veterinary Medicine

200 Westboro Road
North Grafton, MA 01536

DUPLICATE

Name/DOB:	B6	Sex:	CM	Provider:	B6
Patient ID:	B6	Age:	9	Order Location:	V320559: Investigation into
Phone number:		Species:	Canine	Sample ID:	1903140161
Collection Date:	B6 4:02 PM	Breed:	Doberman Pinscher		
Approval date:	B6 6:30 PM				

Research Chemistry Profile - Small Animal (Cobas)

		Ref. Range/Males
DNOYES		
Glucose		67-135 mg/dL
Urea	H	8-30 mg/dL
Creatinine	H	0.6-2.0 mg/dL
Phosphorus		2.6-7.2 mg/dL
Calcium 2	H	9.4-11.3 mg/dL
Magnesium 2+		1.8-3.0 mEq/L
Total Protein		5.5-7.8 g/dL
Albumin		2.8-4.0 g/dL
Globulins		2.3-4.2 g/dL
A/G Ratio		0.7-1.6
Sodium		140-150 mEq/L
Chloride	L	106-116 mEq/L
Potassium		3.7-5.4 mEq/L
tCO2(Bicarb)		14-28 mEq/L
AGAP	H	8.0-19.0
NA/K		29-40
Total Bilirubin	H	0.10-0.30 mg/dL
Alkaline Phosphatase	H	12-127 U/L
GGT		0-10 U/L
ALT	H	14-86 U/L
AST	H	9-54 U/L
Creatine Kinase		22-422 U/L
Cholesterol	H	82-355 mg/dL
Triglycerides		30-338 mg/dl
Amylase		409-1250 U/L
Osmolality (calculated)	H	291-315 mmol/L
Comments (Chemistry)		

Sample ID: 1903140161/1
REPRINT: Orig. printing on **B6** (Final)

Reviewed by: _____

Client: **B6**
 Patient: **B6**

Diet Hx: **B6**

CARDIOLOGY DIET HISTORY FORM

Please answer the following questions about your pet

Pet's name: **B6** Owner's name: **B6** Today's date: **B6**

1. How would you assess your pet's appetite? (mark the point on the line below that best represents your pet's appetite)
 Example: Poor _____ Excellent
 Poor _____ Excellent

2. Have you noticed a change in your pet's appetite over the last 1-2 weeks? (check all that apply)
 Eats about the same amount as usual Eats less than usual Eats more than usual
 Seems to prefer different foods than usual Other _____

3. Over the last few weeks, has your pet (check one)
 Lost weight Gained weight Stayed about the same weight Don't know

4. Please list below ALL pet foods, people food, treats, snack, dental chews, rawhides, and any other food item that your pet currently eats. Please include the brand, specific product, and flavor so we know exactly what you pet is eating.

Examples are shown in the table - please provide enough detail that we could go to the store and buy the exact same food.

Food (include specific product and flavor)	Form	Amount	How often?	Fed since
Nutro Grain Free Chicken, Lentil, & Sweet Potato Adult	dry	1 1/2 cup	2x/day	Jan 2018
85% lean hamburger	microwaved	3 oz	1x/week	Jan 2015
Pupperoni original beef flavor	treat	1/2	1x/day	Aug 2015
Rawhide	treat	6 inch twist	1x/week	Dec 2015
Salmon / RICE	2c	2x/day	Nov 2018	
Salmon / RICE		2c	2x/day	Nov 2018
Chicken / RICE				Dec 2018
Rice of RICE				Jan 2019
Dr. Marty's Balance Diet		2c	2x/day	Feb (10 days)
People food - eating sweet potato (doesn't want rice anymore)		1/2c	2x/day	Feb 11, 2019
Loves salmon - sweet potato		1/2c	2x/day	
appetite dropped by a bit -				
Still eating a diet of people food -				

*Any additional diet information can be listed on the back of this sheet - I can wait a diet daily - diary - I keep fed **B6** act feeds in case he go home

5. Do you give any dietary supplements to your pet (for example: vitamins, glucosamine, fatty acids, or any others)? Yes No
 If yes, please list which ones and give brands and amounts:
 Brand/Concentration Amount per day

Taurine Yes No _____
 Carnitine Yes No _____
 Antioxidants Yes No _____
 Multivitamin Yes No _____
 Fish oil Yes No _____
 Coenzyme Q10 Yes No _____
 Other (please list):
 Example: Vitamin C Nature's Bounty 500 mg tablets - 1 per day

6. How do you administer pills to your pet?
 I do not give any medications
 I put them directly in my pet's mouth without food
 I put them in my pet's dog/cat food
 I put them in a Pill Pocket or similar product I use the chicken or Peanut Butter
 I put them in foods (list foods):
 HE never takes them in pill packets -
 the AM - I always hv. 2 put pill packet down throat
 but PM he eats them

Client: **B6**
Patient: **B6**

Diet Hx **B6**

When we took **B6** home initially he refused to eat!
We tried the dry food, and Hills canned food as prescribed -
He ate NOTHING! We tried to give him his old food - he refused!
By the 4th day I got worried - tried chicken breasts - No!
He refused to eat - I could get him to take
1cc cubes & drink water only -

B6 prescribed the medicine **B6**
By the 5th day home - and after the **B6** he finally
ate a can of urgent care hills diet it smelled like
cat food & came in the same small can -

* He then rejected the prescribed diet of dog food again
and began eating: Salmon/Rice or chicken/Rice/ or
Beef/Rice/ or Scrambled eggs! Then my husband
ordered Dr. Marky's - for about ^{or 10 days} ~~2~~ weeks he ate this
then he began rejecting this and is regularly eating

People food - chicken - carrots - potatoes - Beef
Salmon - he no longer wants
rice - ZC - 2x daily

In the past 3 days **B6** his appetite has
dropped off - he is only eating 1x a day
almost 2 1/2 - 3C People food

I keep a detailed handwritten record from the day **B6** came home with
exactly what he has eaten / how many times he pees / or poops / his walks /
I can e-mail that to you!

Client: **B6**
Patient: **B6**

Notes from owner **B6**

MEMORANDUM

TO: **B6**

TUFTS UNIVERSITY - Cummings School of Veterinary Medicine

Re: **B6** - Cummings Patient ID No. **B6** Doberman Pinscher b. **B6**

EXPERIENCE WITH PROTOCOL FOR DILATED CARDIOMYOPATHY (DCM)

RESEARCH REVIEW VOLUNTEER

Antecedents - On Sunday, **B6** **B6** came running back to me retrieving a tennis ball and let out a yelp for no apparent reason. He dropped the ball and walked around somewhat disoriented - an apparent hypoxic event. We brought him into the house and kept a close watch on him with no signs of distress. The next morning when he seemed somewhat lethargic, I put a stethoscope on him and was surprised that his heart rate was very rapid. I also detected a gurgle in his abdomen. We took him to our local vet **B6** diagnosed him as having DCM and recommended that he be taken to Tufts. As we had had him at Tufts before, we immediately agreed and our vet made contact with Tufts and told us that they would be expecting us.

I might also note, retrospectively that approximately six months earlier, he was running in the backyard and let out an "idiopathic yelp", but without any disorientation or unusual behavior.

In the intervening six months and perhaps some months before he had numerous incidents of head tremors which were described by our vet as benign and idiopathic - but perhaps are not idiopathic and may be symptomatic of cardiovascular output issues.

Bode was admitted to Tufts on **B6** and spent 1-1/2 days in the ICU with our interfacing with Dr. **B6**. A medicinal regime was put in place (with minor modifications over the first few weeks in consultation with **B6**). The current dosages are as follows:

B6

- 2x daily
- 2x daily
- 2x daily
- 1x daily (a.m.)
- 1x daily (p.m.)

We left Tufts with a prognosis of a 4-8 month potential survival with reasonable quality of life, but with sudden death a possibility at any time. We were also told that while DCM can be managed for an indeterminate period it is not a reversible condition.

His heart rate remained very high **B6** for most of the first two months as did his resting respiration rate **B6**. Over the past two months his respiration rate has been quite

Client: B6
Patient: B6

Notes from owner B6

normal and his heart rate has not been visibly rapid (although I was surprised at the heart rate shown on the Kardia ecg app when I recorded it today at B6).

BEHAVIORAL CHANGES.

There have been numerous behavioral changes.

1. He sleeps a lot more than pre-incident.
2. His appetite has diminished considerably and B6 has had to be very creative to assure adequate nutrition. We started him out on the diet recommended by the Nutrition Dept consisting of Purina Pro Plan Adult Weight Management and Hill's Science Diet Adult Beef & Barley Entree. He basically refused this diet after our trying various ways to entice him to eat this. He also refused his prior diet of Earthborn Holistic Adult Weight Management Kibbles and Wellness grain free Beef, Chicken, Lamb, or Turkey. He kept losing weight and after consulting with B6 he suggested we feed him whatever it takes to maintain body mass. We started out with roasted chicken and rice. Whatever we fed him he seemed to lose interest in rather quickly. At one point we resorted to Hills Science Urgent Care a/d to stimulate his appetite. We now tend to feed him baked salmon, hamburger, steak, turkey, pork, halibut, etc. It is generally difficult to get him to eat other than at our dinner hour when he indicates he'll have the same thing we are having. We have also had some intermittent success with Dr. Marty's freeze dried raw meat, fish, poultry and eggs.

This is a dog that lived for food and exercise. He ate anything that we put in front of him with gusto and always had his head on my arm at meal time. He always wanted a dog biscuit when he came in from outside. Now he often has no interest in such a treat or will refuse 3 choices hoping to get what might be his current favorite.

3. We have had and continue to have considerable trouble with diarrhea. He'll be good for a few days then bad for a few days - but quite difficult to permanently stabilize.
4. He is not as assertive as he was pre-treatment as instead of bounding out the door and running around the property being a watchdog, he now walks out the door and waits to be sure I am with him.

QUALITY OF LIFE

I would say that once his respiration stabilized and his apparent heart rate appeared non burdensome, he has had a good quality of life. He thoroughly enjoys his walks and we take him out for 15 minute to 45 minute walks when the weather is reasonably comfortable. On colder days, if he stops walking due to me chatting with somebody, he will start shivering after a few minutes; but as long as he is moving he is fine. When a vehicle pulls into the driveway he goes into watch dog mode and barks loudly - although he misses some of the delivery trucks that do not ring the bell (which he never missed before). He maintains his very gentle charming self when not sleeping and enjoys a little ball playing in the house. He bounds up to the second floor bedroom as if everything is just fine.

Client: B6
Patient: B6

Notes from owner: B6

MANAGEMENT

The two biggest management issues have been (1) diet and diarrhea and (2) frequent urination around the clock. B6 stays up with him until 12:00 - 2:00 a.m. and I get the graveyard shift with a wake-up generally between 2:00 and 4:00 a.m. where I accompany him outside for five to ten minutes with perhaps a wind chill of 10 degrees below zero. This is a feature of th B6 which has kept his lungs clear and his respiratory rate comfortable.

QUESTIONS

We are most interested in your evaluation and any suggestions that you might have for us.

Would any of the supplements that are prescribed for humans such as CoQ10, magnesium or arginine be of any value?

Would a raw food diet be of any benefit?

We are very grateful for the B6 days we have had with our pal. We were not sure he would last until we got back to B6 when we left Cummings. B6 was very responsive to any questions and suggested modifications to the protocol based on conditions presented once we were home. All the staff that we interacted with at Tufts were top notch.

Client: **B6**
Patient: **B6**

IDEXX BNP - 3/14/2019

B6

Client: **B6** Patient: **B6**

Client: **B6**
Patient: **B6**
Species: CANINE
Breed: DOBERMAN_PINSCH
Gender: MALE NEUTERED
Age: 9Y

Date: **B6**
Requisition #: 1A
Accession #: **B6**
Ordered by: **B6**

B6
TUFTS UNIVERSITY
200 WESTBORO RD
NORTH GRAFTON, Massachusetts 01536
508-839-5395
Account #88933

CARDIOPET proBNP - CANINE

Test	Result	Reference Range	Low	Normal	High
CARDIOPET proBNP - CANINE	B6	0 - 900 pmol/L	HIGH		B6

Comments

B6

Please note: Complete interpretive comments for all concentrations of Cardiotet proBNP are available in the online directory of services. Serum specimens received at room temperature may have decreased NT-proBNP concentrations.

Client: [B6]
Patient: [B6]

[B6] records

[B6]

14:10

[B6]

[B6]

PAGE 01/05

[B6]

Attention:

[B6]

In regards to our [B6] visit with:

PATIENT: [B6] Canine

ACCT No

[B6]

OWNER:

Patient Medical History:

[B6] is a 9y CM dobie who is evaluated today for inappetance that is likely induced by his current cardiac medications, as it has begun to improve since adjusting medications 4-5 days ago. He is currently happily eating a variety of human products and his people plan to start introducing some of the dog foods previously recommended by the nutrition department at Tufts. His DCM is being managed by cardiology at Tufts as well and a thyroid panel, leptospirosis panel are currently pending. Based on those results the plan is to check an amiodarone level provided the abdominal ultrasound he was sent here for does not reveal any underlying cause for his appetite. He was diagnosed with DCM and hospitalized for this about 4 months ago.

Current Medications:

[B6]

[B6]

Treatment Plan:

AUS - see report.

UA: 1.014, negative sediment, negative protein, no bacteria seen (cystocentesis)

In house cytology in dermal lesion: grossly is cream colored material, very few cells - few neutrophils and squamous cells, no mast cells or other concerning cells seen.

Pending Leptospirosis and thyroid testing at [B6] - if both are normal likely cardiologist will recommend a [B6] level be done.

Client: [B6]
Patient: [B6]

[B6] records

[B6]

14:10

[B6]

[B6]

PAGE 02/05

Client Instructions:

We love your sweet boy and are happy not to have seen anything concerning in his abdomen today! We agree with the suspicion that his cardiac medications have led to the reduced appetite which has already started to improve. We discussed the concern for deficiencies in his current diet of a variety of healthy human food and you have reached out to the nutritionist at Tufts to discuss a supplement. You are also cautiously optimistic that he will eat some dog food with his improvement and will start to try and introduce the diets recommended by Tufts.

Please continue with his cardiac medications as previously directed.

Please let [B6] know how things are going with him and if there is anything else we can help with for his care!

Thank you for letting us assist you in [B6] care.

Sincerely,

[B6] DVM DACVIM

Attachments: w/s report, discharge instruction

Transcription: [B6] Edits: [B6]

If [B6] is scheduled to return to [B6] for further services, please forward any new medical history and lab work to [B6] or fax to [B6]

Client: **B6**
Patient:

B6 records

B6 14:10 **B6**

B6

PAGE 03/06

B6

Organ / Tissue	Comments
Liver/Gall Bladder/Ducts	B6
Stomach	
Small Intestines	
Pancreas	
Spleen	
Adrenal Glands	
Kidneys/ Ureters	
Bladder	
Reproductive	
Lymph Nodes	

General Comments: **B6**

Procedure Performed by: **B6** DVM DACVIM

Client:
Patient:

B6

B6 records

B6

14:10

B6

B6

PAGE 04/06

B6

Medical Discharge Instructions

B6

B6

Patient Update:

B6 is a 9y CM dobie who is evaluated today for inappetence that is likely induced by his current cardiac medications as it has begun to improve since adjusting medications 4-5 days ago. He is currently happily eating a variety of human products and his people plan to start introducing some of the previously recommended dog foods by the nutrition department at Tufts. His DCM is being managed by cardiology at Tufts as well and a thyroid panel, leptospirosis panel are currently pending. Based on those results the plan is to check an amiodarone level provided the abdominal ultrasound he was sent here for does not reveal any underlying cause for his appetite. He was diagnosed with DCM and hospitalized for this about 4 months ago.

Weight:

88.70 lbs.

Current Medications:

B6

Plan:

AUS - see report.

UA: 1.014, negative sediment, negative protein, no bacteria seen (cystocentesis)

In house cytology in dermal lesion: grossly is cream colored material, very few cells - few neutrophils and squamous cells, no mast cells or other concerning cells seen.

Pending Leptospirosis and thyroid testing **B6** if both are normal likely cardiologist will recommend **B6** (w/ bc done.

Discharge Instructions:

We love your sweet boy and are happy not to have seen anything concerning in his abdomen today! We agree with the suspicion that his cardiac medications have led to the reduced appetite which has already started to improve. We discussed the concern for deficiencies in his current diet of a variety of healthy human food and you have reached out to the nutritionist at Tufts to discuss a supplement. You are also cautiously optimistic that he will eat some dog food with his improvement and will start to try and introduce the diets recommended by Tufts.

B6

Client: **B6**
Patient:

B6 records

B6

14:10

B6

B6

PAGE 05/06

Please continue with his cardiac medications as previously directed.

Please let **B6** know how things are going with him and if there is anything else we can help with for his care!

Please call our office at **B6** if you have any questions or concerns before your next scheduled progress exam. If you have a medical emergency outside of our normal office hours, please contact your regular veterinarian, or consult the list of emergency clinics below.

B6 *DVM, DACVIM*

B6

B6

Client: **B6**
Patient:

B6 records

B6 14:10

B6

B6

PAGE 06/06

B6

Urinalysis

Date: **B6**

Doctor: **B6**

Cysto
Catheter
Freecatch

B6

B6

Breed: Doberman Pinscher
Color: Black & Tan
Sex: Neutered Male Wt: 88.7 lbs
Birthday: **B6** Age: 9y

Gross Examination: Color: Straw Appearance: Clear
Pellet: _____ Specific Gravity: 1.014

Strip Reading: Urobili (mg/dL): normal 2 4 8
Glucose (mg/dL): negative 50 100 250 500 1000
Ketone (mg/dL): negative trace 15(+) 40(++) 80(+++) 160(++++)
Bilirubin: negative + ++ +++
Protein (mg/dL): negative trace 30(+) 100(++) 300(+++) 2000(++++)
Blood: negative Non-Hemolyzed trace moderate
Hemolyzed trace small(+) moderate(++) large(+++)
pH: 5 6 6.5 7 8 9

Sediment Analysis: WBC: none RBC: none Bacteria: none
Casts: none
Crystals: rare amorph
Epithelium: none
Notes: _____

SCANNED

Client: **B6**
Patient: **B6**

B6 **B6**

03/21/2019 3:39:07 PM -0400 FAXCOM

PAGE 1 OF 1

B6

B6

REPORT OF LABORATORY EXAMINATION

Client: **B6** Owner: **B6**

Recvd Date: **B6** 3:40:00 PM Animal: **B6**
Admitted By: **B6** Species: **B6** Canine
Ordered By: N/A Age: 8 years
Encounter: 02617248 Tag/Reg ID: **B6**
CR#: AP Other ID: MRN: **B6**
Breed: Doberman Pinscher
Gender: Male, Castrated

Pending Order Summary

Received Date: **B6** Order Name: Endocrinology Interpretation Status: Ordered

Endocrinology

Endocrine Results

Collected Date/Time (If Provided)	Procedure	Ref Range	Units
B6 11:00:00	Total Thyroxine (TT4) (RIA)	[11-60]	nmol/L
B6	Total Triiodothyronine (TT3) (RIA) *	[0.8-2.1]	nmol/L
	Free T4 by dialysis (RIA)	[6-42]	pmol/L
	T4 Autoantibody (RIA)	[0-20]	%
	T3 Autoantibody (RIA)	[0-10]	%
	Thyroid Stimulating Hormone (CLIA)	[0.00-0.58]	ng/mL
	Thyroglobulin Autoantibody (ELISA) *	[0-35]	%

B6 11:00:00 AM Total Triiodothyronine (TT3) (RIA):
The MSU VDL's thyroid testing will no longer include measurement of free T3. Endocrinology laboratory will continue to assess T3, the active form of thyroid hormone, as total T3.

B6 11:00:00 AM Thyroglobulin Autoantibody (ELISA):
B6 Negative
Inconclusive
Positive

L = Low Result; H = High Result; @ = Critical Result; * = Corrected Result; ^ = Interpretive Data; # = Result Footnote

Print Date/Time: **B6** 3:39 PM

Page 1 of 1
B6

Client: B6
Patient: B6

B6 B6

From B6

Case

B6

B6

Final Report

B6

Case#: 19-33388
Accessioned: B6
Report Generated: B6 @ 3:35 PM by AS1
Results Last Modified: B6 @ 3:35 PM

Case ID	Owner	Coordinator	Breed	Species	Sex / Fixed	Age
B6	B6	B6	Doberman Pinscher	Canine (dog)	Male - Neutered /	B6 Years

Microbiology

Lepto Titer Verified: B6 3:27 PM by VDS

Animal	L autumn	L brat	L can	L crit	L hard	L ist	L rom
B6				B6			

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B6

Client: **B6**
Patient:

B6 - **B6**

B6



B6
PET OWNER: **B6**
SPECIES: Canine
BREED: Doberman Pinscher
GENDER: Male
AGE: 8 Years
PATIENT ID: **B6**

B6

ACCOUNT #:
ATTENDING VET: **B6** DVM

LAB ID:
ORDER ID: 25743
DATE OF RECEIPT
DATE OF RESULT: **B6**

B6 services: **B6**

B6

Hematology

B6

11:29 AM

B6
12:41 PM

B6
11:14 AM

TEST	RESULT	REFERENCE VALUE
RBC	B6	5.65 - 8.87 M/ μ L
Hematocrit		37.3 - 61.7 %
Hemoglobin		13.1 - 20.5 g/dL
MCV		61.6 - 73.5 fL
MCH		21.2 - 25.9 pg
MCHC		32.0 - 37.9 g/dL
RDW		13.6 - 21.7 %
% Reticulocyte		%
Reticulocytes		10 - 110 K/ μ L

B6

B6

B6

Client: **B6**
Patient: **B6**

B6 **B6**

B6

B6

PET OWNER: **B6**

DATE OF RESULT: **B6**

LAB ID:

Hematology (continued)

TEST	RESULT	REFERENCE VALUE		
Reticulocyte	B6	22.3 - 29.6 pg	B6	B6
Hemoglobin				
WBC		5.05 - 16.76 K/ μ L		
% Neutrophils		%		
% Lymphocytes		%		
% Monocytes		%		
% Eosinophils		%		
% Basophils		%		
Neutrophils		2.95 - 11.64 K/ μ L		
Lymphocytes		1.05 - 5.1 K/ μ L		
Monocytes		0.16 - 1.12 K/ μ L		
Eosinophils		0.06 - 1.23 K/ μ L		
Basophils		0 - 0.1 K/ μ L		
Platelets		148 - 484 K/ μ L		
PDW		9.1 - 19.4 fL		
MPV		8.7 - 13.2 fL		
Plateletcrit		0.14 - 0.46 %		
RBC Run				

B6

- RETICS
- RBC_FRAG
- PLT
- RBC
- WBC

Download

WBC Run

B6

- EOS
- MONO
- BASO
- LYM
- URBC
- NEU

Download

Client: **B6**
Patient: **B6**

B6 - **B6**



B6 PET OWNER: **B6** DATE OF RESULT: **B6** LAB ID:

Chemistry

B6 11:36 AM 11:29 AM **B6** 12:49 PM **B6** 11:21 AM

TEST	RESULT	REFERENCE VALUE
Glucose	B6	70 - 143 mg/dL
Creatinine	B6	0.5 - 1.8 mg/dL
BUN	B6	7 - 27 mg/dL
BUN: Creatinine Ratio	B6	
Phosphorus	B6	2.5 - 6.8 mg/dL
Calcium	B6	7.9 - 12.0 mg/dL
Sodium	B6	144 - 160 mmol/L
Potassium	B6	3.5 - 5.8 mmol/L
Chloride	B6	109 - 122 mmol/L
Total Protein	B6	5.2 - 8.2 g/dL
Albumin	B6	2.2 - 3.9 g/dL
Globulin	B6	2.5 - 4.5 g/dL
Albumin: Globulin Ratio	B6	
ALT	B6	10 - 125 U/L
ALP	B6	23 - 212 U/L
GGT	B6	0 - 11 U/L
Bilirubin - Total	B6	0.0 - 0.9 mg/dL
Cholesterol	B6	110 - 320 mg/dL
Amylase	B6	500 - 1,500 U/L
Lipase	B6	200 - 1,800 U/L

Client: **B6**
Patient: **B6**

B6 **B6**

Client: **B6**
Patient: **B6**
Species: Canine
Breed:

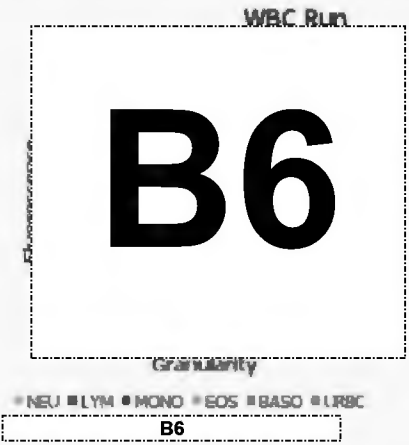
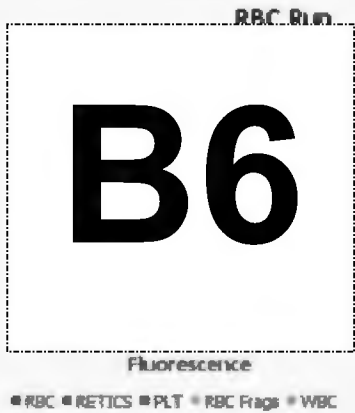
Gender: Male/Castrated
Weight:
Age: 8 Years
Doctor:

B6

Test Results Reference Interval LOW NORMAL HIGH

ProCyt Dx: **B6** (10:18 AM) **B6** 11:28 AM

RBC	B6	5.65 - 8.07	B6
HCT		37.3 - 61.7	
HGB		13.1 - 20.5	
MCV		81.0 - 73.5	
MCH		21.2 - 25.9	
MCHC		32.0 - 37.8	
RDW		13.6 - 21.7	
%RETIC			
RETIC		18.0 - 110.0	
RETIC-HGB		22.3 - 28.8	
WBC		5.05 - 18.78	
%NEU			
%LYM			
%MONO			
%EOS			
%BASO			
NEU	2.95 - 11.94	HE	
LYM	1.05 - 5.10	LC	
MONO	0.18 - 1.12		
EOS	0.08 - 1.23		
BASO	0.00 - 0.10	HE	
PLT	148 - 484		
MPV	8.7 - 13.2		
PDW	8.1 - 18.4		
PCT	0.14 - 0.48		



Printed: **B6** 10:26 AM

Page 1 of 2

B6

Client: **B6**
Patient:

B6 **B6**

Client: **B6** Gender: Male/Castrated
Patient Name: **B6** Weight
Species: Canine Age: 8 Years
Breed: Doctor.

B6

Test	Results	Reference Interval	LOW	NORMAL	HIGH
Catalyst Dx	B6	10:25 AM)			B6 11:36 AM
GLU	B6	70 - 143			
CREA		0.5 - 1.9	HIGH		
BUN		7 - 27	HIGH		
BUN/CREA					
PHOS		2.5 - 6.8			
CA		7.9 - 12.0			
TP		5.2 - 8.2			
ALB		2.2 - 3.9			
GLOB		2.5 - 4.5			
ALB/GLOB					
ALT		0 - 125	HIGH		
ALKP		2.3 - 21.2	HIGH		
AST		0 - 11	HIGH		
TBL		0.0 - 0.9			
CHOL		110 - 320			
AMYL	500 - 1500				
LIPA	200 - 1800				
VetLyte	B6	10:19 AM)			
Na	B6	144 - 160			
K	B6	3.5 - 5.8			
Cl	B6	109 - 122			

B6

Printed: **B6** 10:26 AM

Page 2 of 2

B6

Client: **B6**
Patient: **B6**

Troponin B6



Gastrointestinal Laboratory
Dr. J.M. Steiner
Department of Small Animal Clinical Sciences
Texas A&M University
4474 TAMU
College Station, TX 77843-4474



Website User ID: clinpath@tufts.edu

GI Lab Assigned Clinic ID: 11405

B6
Tufts University Clinical Pathology Lab
Attn: **B6**
200 Westboro Road
North Grafton, MA 01536
USA

Phone: 508 887 4669
Fax: 9 508 839 7936
Animal Name: **B6**
Owner Name:
Species: Canine
Date Received: **B6**

Clinical Pathology Tracking Number: 329174

GI Lab Accession: **B6**

Test	Result	Control Range	Assay Date
Ultra-Sensitive Troponin I Fasting	B6 ng/mL	≤0.06	B6

B6

Comments:

Client: **B6**
Patient:

Troponin B6

**Important
Notices:**

Internal Medicine Conference

Join us for a unique continuing education event in Phuket, Thailand Oct 7th - 11th, 2019. For details see <http://texasimconference.tamu.edu>

Ongoing studies

Cobalamin Supplementation Study- Dogs and cats with cobalamin deficiency with normal PLI, and either normal or low (consistent with EPI) TLI to compare the efficacy of oral vs parenteral cobalamin supplementation. Contact Dr. Chang at chchang@cvm.tamu.edu for further information.

Chronic Pancreatitis with Uncontrolled Diabetes Mellitus- Seeking dogs with chronic pancreatitis and uncontrolled diabetes mellitus for enrollment into a drug trial (medication provided at no cost). Contact Dr. Sue Yee Lim at slim@cvm.tamu.edu or Dr. Sina Marsilio at smarsilio@cvm.tamu.edu

Dogs with Primary Hypertipidemia- Prescription diet naïve dogs newly diagnosed with primary hyperlipidemia are eligible to be enrolled in a dietary trial. Contact Dr. Lawrence at ylawrence@cvm.tamu.edu for more information.

Dogs with Chronic Pancreatitis- Dogs with chronic pancreatitis (cPLI >40.0 µg/L) and hypertriglyceridemia (>300 mg/dl) are eligible to be enrolled in a dietary trial. Contact Dr. Lawrence at ylawrence@cvm.tamu.edu

Chronic enteropathies in dogs- Please fill out this brief form <http://tinyurl.com/tbd-enroll> to see if your patient qualifies.

Feline Chronic Pancreatitis- Cats with chronic pancreatitis for more than 2 weeks and fPLI >10 µg/L are eligible for enrollment into a treatment trial investigating the efficacy of prednisolone or cyclosporine. Please contact Dr. Yamkate for further information at pyamkate@cvm.tamu.edu.

We can not accept packages that are marked "Bill Receiver"

Use our preprinted shipping labels to save on shipping. Call 979-862-2861 for assistance. The GI Lab is not here to accept packages on the weekend. Samples may be compromised if you ship for arrival on Saturday or Sunday or if shipped via US Mail.

GI Lab Contact Information

Phone: (979) 862-2861

Fax: (979) 862-2864

Email: gilab@cvm.tamu.edu

vetmed.tamu.edu/gilab

Client: **B6**
Patient: **B6**

B6 - **B6**

B6



B6

PET OWNER: **B6**
SPECIES: **Canine**
BREED: **Doberman Pinscher**
GENDER: **Male**
AGE: **8 Years**
PATIENT ID: **B6**

B6
ACCOUNT #:
ATTENDING VET:

LAB ID:
ORDER ID: **24138**
DATE OF RECEIPT:
DATE OF RESULT: **B6**

B6 Services: **B6**

Chemistry

B6

11:10 AM

11:02 AM



B6
10:25 AM



B6
11:36 AM

TEST	RESULT	REFERENCE VALUE
Glucose	B6	70 - 143 mg/dL
Creatinine		0.5 - 1.8 mg/dL
BUN		7 - 27 mg/dL
BUN: Creatinine Ratio		
Phosphorus		2.5 - 6.8 mg/dL
Calcium		7.9 - 12.0 mg/dL
Sodium		144 - 160 mmol/L
Potassium		3.5 - 5.8 mmol/L
Chloride		109 - 122 mmol/L
Total Protein		5.2 - 8.2 g/dL
Albumin		2.2 - 3.9 g/dL
Globulin		2.5 - 4.5 g/dL
Albumin: Globulin Ratio		
ALT		10 - 125 U/L
ALP		23 - 212 U/L
GGT		0 - 11 U/L
Bilirubin - Total		0.0 - 0.9 mg/dL
Cholesterol		110 - 320 mg/dL
Amylase		500 - 1,500 U/L
Lipase		200 - 1,800 U/L

B6

B6

B6

Client: **B6**
Patient:

NC State Genetics **B6**

NC State College of Veterinary Medicine

Veterinary Cardiac Genetics Laboratory

1060 William Moore Dr., RB 326
Raleigh, NC 27607
vcgl@lists.ncsu.edu
(919) 513-3314



To request swab collection kits, please visit
<https://cvm.ncsu.edu/genetics/cheek-swab-request/>

Doberman Pinscher Dilated Cardiomyopathy (DCM) Genetic Testing

Dilated cardiomyopathy mutation (DCM) is a form of heart disease in the Doberman pinscher dog. It is an inherited disease, and our laboratory has identified two mutations responsible for the development of DCM. Dogs that are positive for both mutations are at the highest risk of developing DCM

Owner Name: **B6**

NCSU Doberman DCM1 (PDK4) Result: **Negative**

Dog's Name: **B6**

NCSU Doberman DCM2 Result: **Negative**

ID #: **B6**

Below is an explanation for each possible test result so you can better understand all the possible results and make informed breeding decisions:

Negative Result for both DCM1 and DCM2:	The absence of both mutations in a Doberman indicates that the risk of developing DCM is low. It is still possible for a dog to develop heart disease. However, a negative result for both DCM1 and DCM2 indicates that a dog does not have either mutation known to cause DCM.
Positive result for NCSU DCM1 only:	About 40% of dogs with this mutation will develop DCM. Dogs that are positive for only DCM1 will not necessarily develop significant heart disease.
Breeding recommendations:	Dogs are positive for DCM1 should NEVER be bred to a dog that is positive for NCSU DCM 2 since this will lead to dogs that are highest risk of developing DCM. Dogs that are positive homozygous for DCM1 should ideally not be bred.
Positive Result for NCSU DCM2 only:	About 50% of dogs with this mutation will develop DCM. Dogs that are positive for only DCM2 will not necessarily develop significant heart disease.
Breeding recommendations:	Dogs are positive for DCM2 should NEVER be bred to a dog that is positive for NCSU DCM1 (PDK4) since this will lead to dogs that are highest risk of developing DCM. Dogs that are positive homozygous for DCM2 should ideally not be bred.
Positive result for both NCSU DCM1 and NCSU DCM2:	Dogs that positive for BOTH DCM1 & DCM2 are at a very HIGH risk of developing DCM and should be carefully monitored by your veterinarian for signs of disease. Annual evaluation by a cardiologist with an echocardiogram and Holter monitor after 3 years of age is recommended.
Breeding recommendations:	Dogs that are positive for both DCM1 & DCM2 are at the HIGHEST risk of developing DCM and should ideally not be bred since they can pass both traits on. They should never be bred to a dog that is positive for either test.



As always, breeding decisions should be made carefully. Removal of a significant number of dogs from the breeding population could be very bad for the Doberman Pinscher breed. Remember that dogs that carry this mutation may also carry other important good genes that we do not want to lose from the breed.



Cummings

Veterinary Medical Center

AT TUFTS UNIVERSITY

Cardiology Liaison: 508-887-4696

B6

Patient ID: **B6**

Canine

B6 years Old Male (Neutered) Doberman
Pinscher
Black/Tan

Cardiology Appointment Report ENROLLED IN DCM DIET STUDY

Date: **B6**

Attending Cardiologist:

John E. Rush DVM, MS, DACVIM (Cardiology), DACVECC

B6

Cardiology Resident:

B6

Cardiology Technician:

B6

Presenting Complaint:

recheck DCM

Concurrent Diseases:

B6

General Medical History:

Has improved from time of discharge overall but sleeping more, dysrexic, and diarrhea. No pain/discomfort that they've appreciated. Used to "live to eat" but now have to change what they feed every couple days. Appetite seems to improve after getting medications some days. Diarrhea seems to cycle (well-formed stool for 4-5 days, then soft for a few days, sometimes liquid, then constipated for a day or two). Lost weight initially but has been stable last 3 months in terms of body condition. Increased head tremors in last 2 weeks, seem to resolve when attention redirected.

Diet and Supplements:

Tried multiple diets suggested by Nutrition Service but have currently been feeding whatever he will eat (see memo O wrote)

Cardiovascular History:

Prior CHF diagnosis? Y

Prior heart murmur? Y - I/V

Prior ATE? N

Prior arrhythmia? Y - afib

Monitoring respiratory rate and effort at home? Y (mid 20s-30s since increasing Lasix)

Cough? N

Shortness of breath or difficulty breathing? N

Syncope or collapse? Not since 11/4/18 (event that prompted hospitalization)

Sudden onset lameness? N

Exercise intolerance? N

Current Medications Pertinent to CV System:

B6

Cardiac Physical Examination:

B6

Muscle condition:

- | | |
|--|---|
| <input type="checkbox"/> Normal | <input checked="" type="checkbox"/> Moderate cachexia |
| <input checked="" type="checkbox"/> Mild muscle loss | <input type="checkbox"/> Marked cachexia |

Cardiovascular Physical Exam:

Murmur Grade:

- | | |
|--|--------------------------------|
| <input checked="" type="checkbox"/> None | <input type="checkbox"/> IV/VI |
| <input type="checkbox"/> I/VI | <input type="checkbox"/> V/VI |
| <input type="checkbox"/> II/VI | <input type="checkbox"/> VI/VI |
| <input type="checkbox"/> III/VI | |

Jugular vein:

- Bottom 1/3 of the neck
- Middle 1/3 of the neck

- 1/2 way up the neck
- Top 2/3 of the neck

Arterial pulses:

- Weak
- Fair
- Good
- Strong

- Bounding
- Pulse deficits
- Pulsus paradoxus
- Other:

Arrhythmia: slow afib?

- None
- Sinus arrhythmia
- Premature beats

- Bradycardia
- Tachycardia

Gallop:

- Yes
- No
- Intermittent

- Pronounced
- Other:

Pulmonary assessments:

- Eupneic
- Mild dyspnea
- Marked dyspnea
- Normal BV sounds

- Pulmonary crackles
- Wheezes
- Upper airway stridor

Abdominal exam:

- Normal
- Hepatomegaly
- Abdominal distension

- Mild ascites
- Marked ascites

Problems:

-DCM

Diagnostic plan:

- Echocardiogram
- Chemistry profile
- ECG
- Renal profile
- Blood pressure

- Dialysis profile
- Thoracic radiographs
- NT-proBNP
- Troponin I
- Other tests:

B6

Mitral inflow:

- E waves present only - AFib

ECG findings:

Heart rate: 150bpm

B6

Assessment and recommendations:

Findings consistent with mild improvement in contractile function and decrease in LA size. It is unclear whether it is secondary to better control of ventricular rate, better management of DCM with pimobendan, or diet-induced DCM with improvement on systolic function.

Blood work revealed marked azotemia (B6), increased liver values (B6 B6) and cholesterol also elevated (B6). Liver enzymes and cholesterol elevation could be secondary to amiodarone hepatic +/- thyroid toxicity, with concurrent overzealous diuresis; however the combination of elevated kidney and liver values could also be consistent with leptospirosis. Recommend B6 level, abdominal ultrasound, total and free T4 and TSH.

B6

{40-60 mg BID} will likely be tolerated in its place. Recommend recheck echocardiogram for diet study in 3 months.

Final Diagnosis:

Dilated cardiomyopathy with atrial fibrillation - r/o primary DCM vs. diet induced DCM.

Azotemia - rule out secondary to furosemide vs primary renal disease vs infection

Elevated LFT - rule out B6 toxicity vs primary hepatopathy vs infection {leptospirosis v other}

Heart Failure Classification Score:

ISACHC Classification:

- Ia
- Ib
- II
- IIIa
- IIIb

ACVIM Classification:

- A
- B1
- B2
- C
- D

M-Mode

IVSd	B6	cm
LVIDd		cm
LVPWd		cm
IVSs		cm
LVIDs		cm
LVPWs		cm
EDV(Teich)		ml
ESV(Teich)		ml
EF(Teich)		%
%FS		%
SV(Teich)		ml
Max LA		cm
TAPSE		cm
EPSS		cm

M-Mode Normalized

IVSdN	B6	(0.290 - 0.520)
LVIDdN		(1.350 - 1.730)
LVPWdN		(0.330 - 0.530)
IVSsN		(0.430 - 0.710)
LVIDsN		(0.790 - 1.140) !
LVPWsN		(0.530 - 0.780)

2D

SA LA	B6	cm
Ao Diam		cm
SA LA / Ao Diam		
IVSd		cm
LVIDd		cm
LVPWd		cm
EDV(Teich)		ml
IVSs		cm
LVIDs		cm
LVPWs		cm
ESV(Teich)		ml
EF(Teich)		%
%FS		%
SV(Teich)		ml
IVSd		cm
LVIDd		cm
EDV(Teich)		ml
LVPWd		cm
IVSs		cm
LVIDs		cm
ESV(Teich)		ml
EF(Teich)		%
ESV(Cube)		ml
EF(Cube)		%

%FS
SV(Teich)
SI(Teich)
SV(Cube)
SI(Cube)
LVPWs
LV Major
LV Minor
Sphericity Index
LVld LAX
LVAd LAX
LVEDV A-L LAX
LVEDV MOD LAX
LVls LAX
LVAs LAX
LVESV A-L LAX
LVESV MOD LAX
HR
EF A-L LAX
LVEF MOD LAX
SV A-L LAX
SV MOD LAX
CO A-L LAX
CO MOD LAX
R-R
HR
CO A-L LAX
CO MOD LAX

Doppler

E'
S'
IVRT
AV Vmax
AV maxPG

B6

B6

%
ml
ml/m
ml
ml/m
cm
cm
cm
cm
cm
ml
ml
ml
cm
cm
ml
ml
BPM
%
%
ml
ml
l/min
l/min
ms
BPM
l/min
l/min

m/s
m/s
ms
m/s
mmHg



Tufts Cummings School Of Veterinary Medicine

200 Westboro Road
North Grafton, MA 01536

DUPLICATE

Name/DOB: **B6**

Patient ID:

Sex: F

Provider: **B6**

Order Location: V320559: Investigation into

Phone number:

Age: 6

Sample ID: 1902050104

Collection Date: **B6** 12:44 PM

Species: Canine

Approval date: 2:27 PM

Breed: Irish Wolfhound

CBC, Comprehensive, Sm Animal (Research)

		Ref. Range/Females
SLOPEZ		
WBC (ADVIA)	B6	4.40-15.10 K/uL
RBC (Advia)		5.80-8.50 M/uL
Hemoglobin (ADVIA)		13.3-20.5 g/dL
Hematocrit (Advia)		39-55 %
MCV (ADVIA)		64.5-77.5 fL
MCH (ADVIA)		21.3-25.9 pg
CHCM		
MCHC (ADVIA)		31.9-34.3 g/dL
RDW (ADVIA)		11.9-15.2
Platelet Count (Advia)		173-486 K/uL
B6 2:26 PM	platelets per 100x field (estimated count of 200,000-500,000/uL)	
Mean Platelet Volume (Advia)	B6	8.29-13.20 fl
B6 1:09 PM	Platelet clumps (if present) and sample age (greater than 4 hours) can result in a falsely increased MPV.	
Platelet Crit	B6	0.129-0.403 %
B6 1:09 PM	Platelet Crit is invalid when clumped platelets are present. Interpretation of PltCt is unclear in species other than canines.	
PDW	B6	
Reticulocyte Count (Advia)		0.20-1.60 %
Absolute Reticulocyte Count (Advia)		14.7-113.7 K/uL
CHr		
MCVr		

Microscopic Exam of Blood Smear (Advia)

		Ref. Range/Females
SLOPEZ	B6	
Seg Neuts (%)		43-86 %
Lymphocytes (%)		7-47 %
Monocytes (%)		1-15 %
Eosinophils (%)		0-16 %
Seg Neutrophils (Abs) Advia		2.800-11.500 K/uL
Lymphs (Abs) Advia		1.00-4.80 K/uL
Mono (Abs) Advia		0.10-1.50 K/uL
Eosinophils (Abs) Advia		0.00-1.40 K/uL
WBC Morphology		
Poikilocytosis		

Research Chemistry Profile - Small Animal (Cobas)

Sample ID: 1902050104/1
This report continues... (Final)

Reviewed by: _____



Tufts Cummings School Of Veterinary Medicine

200 Westboro Road
North Grafton, MA 01536

DUPLICATE

Name/DOB: **B6**

Patient ID:

Sex: F

Provider: **B6**

Order Location: V320559: Investigation into

Phone number:

Age: 6

Sample ID: 1902050104

Collection Date: **B6** 12:44 PM

Species: Canine

Approval date: 2:27 PM

Breed: Irish Wolfhound

Research Chemistry Profile - Small Animal (Cobas) (cont'd)

SMACHUNSKI

Ref. Range/Females

Glucose

67-135 mg/dL

Urea

8-30 mg/dL

Creatinine

0.6-2.0 mg/dL

Phosphorus

2.6-7.2 mg/dL

Calcium 2

9.4-11.3 mg/dL

Magnesium 2+

1.8-3.0 mEq/L

Total Protein

5.5-7.8 g/dL

Albumin

2.8-4.0 g/dL

Globulins

2.3-4.2 g/dL

A/G Ratio

0.7-1.6

Sodium

140-150 mEq/L

Chloride

106-116 mEq/L

Potassium

3.7-5.4 mEq/L

tCO2(Bicarb)

14-28 mEq/L

AGAP

8.0-19.0

NA/K

29-40

Total Bilirubin

0.10-0.30 mg/dL

Alkaline Phosphatase

12-127 U/L

GGT

0-10 U/L

ALT

14-86 U/L

AST

9-54 U/L

Creatine Kinase

22-422 U/L

Cholesterol

82-355 mg/dL

Triglycerides

30-338 mg/dl

Amylase

409-1250 U/L

Osmolality (calculated)

291-315 mmol/L

Comments (Chemistry)

L
H

B6

L

Sample ID: 1902050104/2

REPRINT: Orig. printing on **B6** (Final)

Reviewed by: _____

Page 2

Client:
Patient:

B6

ECG from ~~carotid~~

B6

B6

10:41:01 AM

Tufts University
Tufts Cummings School of Vet Med
Cardiology

12 Lead: Standard Placement

B6

Client: **B6**
Patient:

ECG from cardio

B6

B6

10:41:30 AM

Page 1 of 2

Tufts University
Tufts Cummings School of Vet Med
Cardiology

12 Lead: Standard Placement

B6

Client: **B6**
Patient: **B6**

ECG from cardio

B6

B6 10:41:30 AM Page 2 of 2
Tufts University
Tufts Cummings School of Vet Med
Cardiology

B6

Client: **B6**
Patient: **B6**

Diet history: **B6**

427813

CARDIOLOGY DIET HISTORY FORM

Please answer the following questions about your pet

Pet's name: **B6** Owner's name: **B6** Today's date: **B6**

1. How would you describe your pet's appetite? (mark the point on the line below that best represents your pet's appetite)
Example: **Excellent**
Poor _____ Excellent

2. Have you noticed a change in your pet's appetite over the last 1-2 weeks? (check all that apply)
 Eats about the same amount as usual Eats less than usual Eats more than usual
 Seems to prefer different foods than usual Other _____

3. Over the last few weeks, has your pet (check one)
 Lost weight Gained weight Stayed about the same weight Don't know

1. Please list below ALL pet foods, people food, treats, snack, dental chews, rawhides, and any other food item that your pet currently eats and that you have fed in the last 2 years.

Please provide enough detail that we could go to the store and buy the exact same food - examples are shown in the table

Food (include specific product and flavor)	Form	Amount	How often?	Dates fed
Nutro Grain Free Chicken, Lentil, & Sweet Potato Adult	dry	1 1/2 cup	2x/day	Jan 2016-present
85% lean hamburger	microwaved	3 oz	1x/week	June -Aug 2016
Pupperoni original beef flavor	treat	1/2	1x/day	Sept 2016-present
Rawhide	treat	6 inch twist	1x/week	Dec 2018-present
Purina Performance ^{Farm} Pro Lamb + Rice	Dry	3 cups	2x/day	March 2017-March 2019
Purina Pro Plan Weight Management	Dry	3-4 cups	2x/day	March 2019-Present

*Any additional diet information can be listed on the back of this sheet

2. Do you give any dietary supplements to your pet (for example: vitamins, glucosamine, fatty acids, or any other supplements)? Yes No If yes, please list which ones and give brands and amounts:

	Brand/Concentration	Amount per day
Taurine	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	_____
Carnitine	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	_____
Antioxidants	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	_____
Multivitamin	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	_____
Fish oil	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	_____
Coenzyme Q10	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	_____
Other (please list):		
Example: Vitamin C	Nature's Bounty	500 mg tablets - 1 per day
_____	_____	_____
_____	_____	_____
_____	_____	_____

3. How do you administer pills to your pet?
 I do not give any medications
 I put them directly in my pet's mouth without food
 I put them in my pet's dog/cat food
 I put them in a Pill Pocket or similar product
 I put them in foods (list foods): put in a slice of cheese

Client: **B6**
Patient: **B6**

B6 NT-proBNP **B6**

B6

Client: **B6** Patient: **B6**

Client: **B6**
Patient: **B6**
Species: CANINE
Breed: IRISH_WOLFHOUND
Gender: FEMALE S PAVED
Age: 6Y

Date: **B6**
Requisition #: 427813
Accession #: **B6**
Ordered by: **B6**

B6
TUFTS UNIVERSITY
200 WESTBORO RD
NORTH GRAFTON, Massachusetts 01536
508-839-5395
Account #88933

CARDIOPET proBNP- CANINE

Test	Result	Reference Range	Low	Normal	High
CARDIOPET proBNP - CANINE	B6	0 - 900 pmol/L	HIGH		B6

Comments

B6

Please note: Complete interpretive comments for all concentrations of cardiopet proBNP are available in the online directory of services. Serum specimens received at room temperature may have decreased NT-proBNP concentrations.

Client: **B6**
Patient: **B6**

Troponin **B6**



Gastrointestinal Laboratory
Dr. J.M. Steiner
Department of Small Animal Clinical Sciences
Texas A&M University
4474 TAMU
College Station, TX 77843-4474



Website User ID: **B6**

GI Lab Assigned Clinic ID: 23523

Tufts Cummings School of Vet Med - Cardiology/Nutrition
200 Westboro Road
North Grafton, MA 01536
USA

Phone: 508 887 4696
Fax:
Animal Name: **B6**
Owner Name:
Species: Canine
Date Received: **B6**

Tufts Cummings School of Vet Med -
Cardiology/Nutrition Tracking Number:
427813

GI Lab Accession: **B6**

<u>Test</u>	<u>Result</u>	<u>Reference Interval</u>	<u>Assay Date</u>
Ultra-Sensitive Troponin I Fasting	B6 ng/mL	≤0.06	B6

B6

Comments:

GI Lab Contact Information

Phone: (979) 862-2861
Fax: (979) 862-2864

Email: gilab@cvm.tamu.edu
vetmed.tamu.edu/gilab

Client: **B6**
Patient: **B6**

Plasma taurine **B6**

30670

B6
B6
CAPSULE
2:14 PM
TAURINE (PLASMA)
Lithium Heparin

Amino Acid Laboratory Sample Submission Form

Amino Acid Laboratory, 1089 Veterinary Medicine Drive, Davis, Ca 95616

Telephone: 530-752-5058, Fax: 530-752-4698

Email: ucd.aminoacid.lab@ucdavis.edu

www.vetmed.ucdavis.edu/labs/amino-acid-laboratory

Veterinarian Contact: **B6**

Clinic/Company Name: Tufts Cummings School of Vet. Med. - Clinical Pathology Laboratory

Address: 200 Westboro Road, North Grafton, MA 015369

Email: Clinpath@tufts.edu cardiovet@tufts.edu

Telephone: 508-887-4669 Fax: 508-839-7936

Billing Contact: **B6** Email: **B6**

Billing Contact Phone: **B6** Tax ID: _____

Patient Name: **B6** Species: Canine

Breed: Irish Wolfhound Owner's Name: **B6**

Current Diet: Poulin Lamb and Rice dry * Sample from **B6** stored in -80 freezer

Sample type: Plasma Whole Blood Urine Food Other _____

Test: Taurine Complete Amino Acids Other: _____

Taurine Results (lab use only)

Plasma: **B6** Whole Blood: _____ Urine: _____ Food: _____

++ OD **B6**

	Plasma (nMol/ml)		Whole Blood (nMol/ml)	
	Normal Range	No known risk for deficiency	Normal Range	No known risk for deficiency
Cat	80-120	>40	300-600	>200
Dog	60-120	>40	200-350	>150

* Please note with the recent increase in the number of dogs screened for taurine deficiency, we are seeing dogs with values within the reference ranges (or above the "no known risk for deficiency range") yet are still exhibiting signs of cardiac disease. Veterinarians are welcome to contact our laboratory for assistance in evaluating your patient's results.

Discharge Instructions

Patient

Name: B6
Species: Canine
Gray Female Irish Wolfhound
Birthdate: B6

Owner

Name: B6
Address: B6

Patient ID: B6

Attending Cardiologist:

John E. Rush DVM, MS, DACVIM (Cardiology), DACVECC

B6

Cardiology Resident:

B6

Cardiology Technician:

B6

Student: B6

Date: B6

Diagnoses:

Slightly decreased cardiac contractility - stable to a bit improved

B6

Clinical Findings:

Thank you for bringing B6 to the Tufts Cardiology Service for a recheck through the DCM study.

You report that B6 is doing much better at home, and her breathing has improved since started B6. You did note that she had a B6 which appears to be healing well today. B6 echocardiogram today demonstrated that the contractility of her heart is still slightly abnormal, but appears to be a bit better than on her previous exam. The chambers in her heart are normal sized and the walls of the chambers are normal thickness. Her ECG (electrocardiogram) did not show any arrhythmias (irregular heart beats).

B6 did not show any signs of worsening cardiac disease on examination today. We submitted blood today to recheck these tests, and will call or email you when we get the results.

Monitoring at Home:

Please monitor B6 for changes in appetite, vomiting, diarrhea, coughing, difficulty breathing, exercise intolerance, lethargy, or any other changes. If you note any of these, please contact us or bring her to see a veterinarian as soon as possible.

Diet Suggestions:

Please continue feeding **B6** the Purina Proplan food.

Exercise Recommendations:

B6 does not need any exercise restriction at this time. If you notice that she is not tolerating exercise, stop and contact a veterinarian.

Medications:

Continue **B6** previously directed.

Recheck Visits: We have scheduled **B6** for a recheck examination and echo on August 12th at 11:30am.

Thank you for entrusting us with **B6** care, she is such a great patient! Please contact our Cardiology liaison at (508)-887-4696 or email us at cardiovet@tufts.edu for scheduling and non-emergent questions or concerns.

Please visit our HeartSmart website for more information

<http://vet.tufts.edu/heartsmart/>

Prescription Refill Disclaimer:

For the safety and well-being of our patients, your pet must have had an examination by one of our veterinarians within the past year in order to obtain prescription medications.

Ordering Food:

Please check with your primary veterinarian to purchase the recommended diet(s). If you wish to purchase your food from us, please call 7-10 days in advance (508-887-4629) to ensure the food is in stock. Alternatively, veterinary diets can be ordered from online retailers with a prescription/veterinary approval.

Clinical Trials:

Clinical trials are studies in which our veterinary doctors work with you and your pet to investigate a specific disease process or a promising new test or treatment. Please see our website: vet.tufts.edu/cvmc/clinical-studies

Case **B6**

Owner **B6**

Discharge Instructions

B6

Patient ID: B6
B6 Canine
B6 Years Old Female Irish Wolfhound
Gray

Cardiology Appointment Report
DCM STUDY

Date: B6

Attending Cardiologist:

John E. Rush DVM, MS, DACVIM (Cardiology), DACVECC

B6

Cardiology Resident:

B6

Cardiology Technician:

B6

Student: B6 V20

Presenting Complaint: DCM study 3m recheck

Concurrent Diseases: B6

General Medical History: 1st evaluated in 12/18 for acute resp distress B6 Echo showed mildly deac contractile fxn, no cardiomegaly. Has occasional VPCs. Had bronchoscopy, TTW, chest rads and course of ABX in april for B6

B6

Diet and Supplements:

Purina ProPlan - 2c BID
No supplements

Cardiovascular History:

Prior CHF diagnosis? n
Prior heart murmur? n
Prior ATE? n
Prior arrhythmia? y VPCs
Monitoring respiratory rate and effort at home? n - but usually very slow RR - "has to check if still breathing"

Cough? no
Shortness of breath or difficulty breathing? no
Syncope or collapse? no
Sudden onset lameness? no
Exercise intolerance? no

Current Medications Pertinent to CV System:

B6

Muscle condition:

- | | |
|--|--|
| <input type="checkbox"/> Normal | <input type="checkbox"/> Moderate cachexia |
| <input checked="" type="checkbox"/> Mild muscle loss | <input type="checkbox"/> Marked cachexia |

Cardiovascular Physical Exam:

Murmur Grade:

- | | |
|--|--------------------------------|
| <input checked="" type="checkbox"/> None | <input type="checkbox"/> IV/VI |
| <input type="checkbox"/> I/VI | <input type="checkbox"/> V/VI |
| <input type="checkbox"/> II/VI | <input type="checkbox"/> VI/VI |
| <input type="checkbox"/> III/VI | |

Jugular vein:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Bottom 1/3 of the neck | <input type="checkbox"/> 1/2 way up the neck |
| <input type="checkbox"/> Middle 1/3 of the neck | <input type="checkbox"/> Top 2/3 of the neck |

Arterial pulses:

- | | |
|--|---|
| <input type="checkbox"/> Weak | <input type="checkbox"/> Bounding |
| <input type="checkbox"/> Fair | <input type="checkbox"/> Pulse deficits |
| <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Pulsus paradoxus |
| <input type="checkbox"/> Strong | <input type="checkbox"/> Other: |

Arrhythmia:

- | | |
|---|--------------------------------------|
| <input checked="" type="checkbox"/> None | <input type="checkbox"/> Bradycardia |
| <input type="checkbox"/> Sinus arrhythmia | <input type="checkbox"/> Tachycardia |
| <input checked="" type="checkbox"/> Premature beats - possible rare, only heard by one person | |

Gallop:

- | | |
|--|-------------------------------------|
| <input type="checkbox"/> Yes | <input type="checkbox"/> Pronounced |
| <input checked="" type="checkbox"/> No | <input type="checkbox"/> Other: |

Intermittent

Pulmonary assessments:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Eupneic | <input type="checkbox"/> Pulmonary crackles |
| <input type="checkbox"/> Mild dyspnea | <input type="checkbox"/> Wheezes |
| <input type="checkbox"/> Marked dyspnea | <input type="checkbox"/> Upper airway stridor |
| <input checked="" type="checkbox"/> Normal BV sounds | |

Abdominal exam:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Normal | <input type="checkbox"/> Mild ascites |
| <input type="checkbox"/> Hepatomegaly | <input type="checkbox"/> Marked ascites |
| <input type="checkbox"/> Abdominal distension | |

Problems:

DCM-like changes

Arrhythmias

Diagnostic plan:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Echocardiogram | <input type="checkbox"/> Dialysis profile |
| <input type="checkbox"/> Chemistry profile | <input type="checkbox"/> Thoracic radiographs |
| <input checked="" type="checkbox"/> ECG | <input checked="" type="checkbox"/> NT-proBNP |
| <input type="checkbox"/> Renal profile | <input checked="" type="checkbox"/> Troponin I |
| <input type="checkbox"/> Blood pressure | <input checked="" type="checkbox"/> Other tests: DCM study |

B6

Assessment and recommendations:

Echocardiogram reveals mildly reduced contractile function, but there may be slight improvement in vigor of contraction today. No arrhythmia was observed compared to relatively frequent VPCs last time. It is unclear whether these improvements are related to daily variation, better control of (B6), or actual improvement in cardiac status. Blood work submitted for DCM study. Recheck in 3 months for echo and blood work +/- EKG for study.

Final Diagnosis:

Mild decreased of the contractile function r/o variant of normal vs. DCM (diet related vs. breed related)

M-Mode

IVSd	B6	cm
LVIDd		cm
LVPWd		cm
IVSs		cm
LVIDs		cm
LVPWs		cm
EDV(Teich)		ml
ESV(Teich)		ml
EF(Teich)		%
%FS		%
SV(Teich)		ml
Ao Diam		cm
LA Diam		cm
LA/Ao		
Max LA		cm
TAPSE	cm	

M-Mode Normalized

IVSdN	B6	{0.290 - 0.520}
LVIDdN		{1.350 - 1.730}
LVPWdN		{0.330 - 0.530}
IVSsN		{0.430 - 0.710}
LVIDsN		{0.790 - 1.140}
LVPWsN		{0.530 - 0.780}
Ao Diam N		{0.680 - 0.890}
LA Diam N		{0.640 - 0.900} !

2D

SA LA	B6	cm
Ao Diam		cm
SA LA / Ao Diam		
IVSd		cm
LVIDd		cm
LVPWd		cm
EDV(Teich)		ml
IVSs		cm
LVIDs		cm
LVPWs		cm
ESV(Teich)		ml
EF(Teich)		%
%FS		%
SV(Teich)		ml
LVLd AAC		cm

LVEDV MOD A4C
LVLSA4C
LVESV MOD A4C
LVEF MOD A4C
SV MOD A4C

B6

ml
cm
ml
%
ml

Doppler

MV E Vel
MV DecT
MV Dec Slope
MV A Vel
MV E/A Ratio
E'
E/E'
A'
S'
AV Vmax
AV maxPG
PV Vmax
PV maxPG

B6

m/s
ms
m/s
m/s

m/s

m/s
m/s
m/s
mmHg
m/s
mmHg

Client: **B6**
Patient: **B6**

UCDavis Taurine Panel

PL: 24421
WB: 24422

Amino Acid Laboratory Sample Submission Form

Amino Acid Laboratory, 1089 Veterinary Medicine Drive, Davis, Ca 95616
Telephone: 530-752-5058, Fax: 530-752-4698
Email: ucd.aminoacid.lab@ucdavis.edu
www.vetmed.ucdavis.edu/labs/amino-acid-laboratory

Veterinarian Contact: **B6**

Clinic/Company Name: Tufts Cummings School of Vet. Med. - Clinical Pathology Laboratory

Address: 200 Westboro Road, North Grafton MA 015369

Email: Clinpath@tufts.edu / cardiovet@tufts.edu

Telephone: 508-887-4669 Fax: 508-839-7936

Billing Contact: **B6** Email: **B6**

Billing Contact Phone: **B6** Tax ID: _____

Patient Name: **B6** Species: Golden

Breed: Golden Owner's Name: **B6**

Current Diet: Beneful - was on grain free taste of food and
maintains balance

Sample type: Plasma Whole Blood Urine Food Other

Test: Taurine Complete Amino Acids Other: _____

Taurine Results (lab use only)

Plasma: **B6** Whole Blood: **B6** Urine: _____ Food: _____

	Plasma (nMol/ml)		Whole Blood (nMol/ml)	
	Normal Range	No known risk for deficiency	Normal Range	No known risk for deficiency
Cat	80-120	>40	300-600	>200
Dog	60-120	>40	200-350	>150

* Please note with the recent increase in the number of dogs screened for taurine deficiency, we are seeing dogs with values within the reference ranges (or above the "no known risk for deficiency range") yet are still exhibiting signs of cardiac disease. Veterinarians are welcome to contact our laboratory for assistance in evaluating your patient's results.

Client: **B6**
Patient: **B6**

Prescription: **B6**

B6 16:48 From: **B6** **B6** Page: 1/2
OK To Ship

VETERINARY PRESCRIPTION AUTHORIZATION FAX FORM

Pharmacy (toll free) Fax

B6

B6



ATTENTION ATTENTION VETERINARIAN: Your patient has requested a prescription. Please complete and fax back. If you have any questions, please call: **B6**

SECTION A: PET OWNER – please print information below

OWNER **B6** PET'S NAME **B6**
 First Name Last Name Customer Number – (optional)
 BILLING ADDRESS **B6** SHIPPING ADDRESS (if different)
 Address
B6
 City State Zip
 PHONE **B6** EMAIL
 PREFERRED SHIPPING METHOD
 Ground Second Day Air Overnight

SECTION B: VETERINARIAN – please print prescription info (or attach RX below) and fax to **B6**

**** This Area for Prescriber Use Only ****

PRESCRIBER
 Office Name **B6** License# DEA # (for controls)

CLINIC
 Address
 City State Zip
 PHONE 508-839-5395 FAX 508-839-7951
 Bill to Office Patient Ship to Office Patient
 Email

PET'S NAME **B6** SPECIES canine WEIGHT 55 LB SEX AGE 7

COMPOUNDED MEDICATION **B6**

DOSAGE FORM **B6** STRENGTH 15 MG

AND INITIAL DIRECTIONS: ONE 1/2 TABLET(S) BY MOUTH Twice a day

QTY 60 TABS REFILL 11

B6

PLEASE SIGN

prohibited. If you have received this telecopy in error, please notify the sender immediately to arrange the return of this document.

Client: **B6**
Patient: **B6**

BNP

B6

Client: **B6** Patient: **B6**

B6

Client: **B6**
Patient: **B6**
Species: CANINE
Breed: GOLDEN_RETRIEVE
Gender:
Age: 7Y

Date: **B6**
Requisition #: **B6**
Accession #: **B6**
Ordered by: **B6**

TUFTS UNIVERSITY
200 WESTBORO RD
NORTH GRAFTON, Massachusetts 01536
508-839-5395

Account #88933

CARDIOPET proBNP- CANINE

Test	Result	Reference Range	Low	Normal	High
CARDIOPET proBNP -CANINE	B6	0 - 900 pmol/L	HIGH	B6	

Comments

B6

Please note: Complete interpretive comments for all concentrations of cardiopet proBNP are available in the online directory of services. Serum specimens received at room temperature may have decreased NT-proBNP concentrations.

Result is greater than 10000 pmol/L

Client: **B6**
Patient: **B6**

Texas A and M Troponin



Gastrointestinal Laboratory
Dr. J.M. Steiner
Department of Small Animal Clinical Sciences
Texas A&M University
4474 TAMU
College Station, TX 77843-4474



Website User ID: Cardiovet@tamu.edu OR clinpath@tamu.edu

GI Lab Assigned Clinic ID: 11405

B6
Tufts University-Clinical Pathology Lab
Attn: **B6**
200 Westboro Road
North Grafton, MA 01536
USA

Phone: 508 887 4669
Fax: 9 508 839 7936
Animal Name: **B6**
Owner Name:
Species: Canine
Date Received: **B6**

GI Lab Accession: 13484

<u>Test</u>	<u>Result</u>	<u>Reference Interval</u>	<u>Assay Date</u>
Ultra-Sensitive Troponin I Fasting	B6 ng/mL	≤0.06	B6

B6

Comments:

GI Lab Contact Information

Phone: (979) 862-2861
Fax: (979) 862-2864

Email: gilab@cvm.tamu.edu
vetmed.tamu.edu/gilab

Client: **B6**
Patient: **B6**

Diet Hx **B6**

427078

CARDIOLOGY DIET HISTORY FORM
Please answer the following questions about your pet

Pet's name **B6** Owner's name **B6** Today's date **B6**

1. How would you assess your pet's appetite? (mark the point on the line below that best represents your pet's appetite)

Example: Poor _____ | _____ Excellent
Poor _____ | _____ Excellent

2. Have you noticed a change in your pet's appetite over the last 1-2 weeks? (check all that apply)

Eats about the same amount as usual Eats less than usual Eats more than usual
 Seems to prefer different foods than usual Other _____

3. Over the last few weeks, has your pet (check one)
 Lost weight Gained weight Stayed about the same weight Don't know

1. Please list below ALL pet foods, people food, treats, snack, dental chews, rawhides, and any other food item that your pet currently eats and that you have fed in the last 2 years.

Please provide enough detail that we could go to the store and buy the exact same food - examples are shown in the table

Food (include specific product and flavor)	Form	Amount	How often?	Dates fed
Nutro Grain Free Chicken, Lentil, & Sweet Potato Adult	dry	1 1/2 cup	2x/day	Jan 2016-present
85% lean hamburger	microwaved	3 oz	1x/week	June -Aug 2016
Pupperoni original beef flavor	treat	1/2	1x/day	Sept 2016-present
Rawhide	treat	6 inch twist	1x/week	Dec 2018-present
Purina One true blend turkey + venison	dry	1 cup	2x/day	Dec 2018
Alpo treats	treat	S/day	→	Dec 2018

*Any additional diet information can be listed on the back of this sheet

2. Do you give any dietary supplements to your pet (for example: vitamins, glucosamine, fatty acids, or any other supplements)? Yes No If yes, please list which ones and give brands and amounts:

	Brand/Concentration	Amount per day
Taurine	NOW	2 500mg twice/day
Carnitine		
Antioxidants		
Multivitamin		
Fish oil		
Coenzyme Q10		
Other (please list): Example: Vitamin C	Nature's Bounty	500 mg tablets - 1 per day

3. How do you administer pills to your pet?

I do not give any medications
 I put them directly in my pet's mouth without food
 I put them in my pet's dog/cat food
 I put them in a Pill Pocket or similar product
 I put them in foods (list foods): _____

Client: **B6**
Patient: **B6**

Chem 21 **B6**



Tufts Cummings School Of Veterinary Medicine

200 Westboro Road
North Grafton, MA 01536

Name/DOB:	B6	Sex: U	Provider: B6
Patient ID:	B6	Age: 7	Order Location: V320559: Investigation into
Phone number:		Species: Canine	Sample ID: 1905160125
Collection Date:	B6 8:55 PM	Breed: Golden Retriever	
Approval date:	B6 6:36 PM		

Research Chemistry Profile - Small Animal (Cobas)

		Ref. Range/-
SMACHUNSKI		
Glucose		67-135 mg/dL
Urea		8-30 mg/dL
Creatinine		0.6-2.0 mg/dL
Phosphorus		2.6-7.2 mg/dL
Calcium 2		9.4-11.3 mg/dL
Magnesium 2+		1.8-3.0 mEq/L
Total Protein		5.5-7.8 g/dL
Albumin		2.8-4.0 g/dL
Globulins	L	2.3-4.2 g/dL
A/G Ratio	H	0.7-1.6
Sodium		140-150 mEq/L
Chloride		106-116 mEq/L
Potassium		3.7-5.4 mEq/L
tCO2(Bicarb)	B6	14-28 mEq/L
AGAP		8.0-19.0
NA/K		29-40
Total Bilirubin		0.10-0.30 mg/dL
Alkaline Phosphatase		12-127 U/L
GGT		0-10 U/L
ALT		14-86 U/L
AST		9-54 U/L
Creatine Kinase		22-422 U/L
Cholesterol		82-355 mg/dL
Triglycerides	L	30-338 mg/dl
Amylase		409-1250 U/L
Osmolality (calculated)		291-315 mmol/L

Sample ID: 1905160125/1
END OF REPORT (Final)

Reviewed by: _____

Client: **B6**
Patient: **B6**

B6 NT-proBNP **B6**

B6

Client: **B6** Patient: **B6**

B6

Client: **B6**
Patient: **B6**
Species: CANINE
Breed: GOLDEN_RETRIEVE
Gender: FEMALE S PAYED
Age: 7Y

Date: **B6**
Requisition #: 1A
Accession #: **B6**
Ordered by: **B6**

TUFTS UNIVERSITY
200 WESTBORO RD
NORTH GRAFTON, Massachusetts 01536
508-839-5395
Account #88933

CARDIOPET proBNP - CANINE

Test	Result	Reference Range	Low	Normal	High
CARDIOPET proBNP - CANINE	B6	0 - 900 pmol/L		HIGH	B6

Comments:

B6

Please note: Complete interpretive comments for all concentrations of cardiopet proBNP are available in the online directory of services. Serum specimens received at room temperature may have decreased NT-proBNP concentrations.

Result is greater than **B6** pmol/L

Client: **B6**
Patient: **B6**

B6 script submitted

B6 11:07 From: **B6** Page: 1/1

B6

Pharmacy Fax: **B6**

Prescription Refill Request



FAXED

(This fax contains sensitive patient information. If you are not the intended party, please destroy this fax)

Date printed / faxed **B6**

B6

TO: **B6**
55 WILLARD ST NORTH GRAFTON, MA 01536
Phone 508-839-5395
Fax 508-887-4275

FROM: **B6**

Phone:
Fax:

Patient: **B6**

Phone: **B6**
Birthdate: **B6** Age 7
Rx # 00119389
Quantity 60
Current Drug **B6**

Date written:
Last refill: **B6** Prescription expiration date: **B6**
Directions: GIVE 1 TABLET BY MOUTH EVERY 12 HOURS

Suggested formula: **B6** If approved, please initial: _____
B6 DOSETAB TABLET **B6**
#90 GIVE 1 TABLET BY MOUTH THREE TIMES DAILY

OWNER STATES DOSE FREQUENCY HAS INCREASED TO TID

Refill Response: Fax back to the pharmacy at **B6**

May Refill:
____ PRN, or 11 Time(s) as Consistent with State Law or Until **B6**
Authorized by _____ **B6** Date: **B6**

Comments or Questions: _____

Client: **B6**
Patient:

Troponin **B6**



Gastrointestinal Laboratory
Dr. J.M. Steiner
Department of Small Animal Clinical Sciences
Texas A&M University
4474 TAMU
College Station, TX 77843-4474



Website User ID: lisa.freeman@tufts.edu OR **B6**

GI Lab Assigned Clinic ID: 23523

B6
Tufts Cummings School of Vet Med - Cardiology/Nutrition
200 Westboro Road
North Grafton, MA 01536
USA

Phone: 508 887 4696

Fax:
Animal Name: **B6**
Owner Name:

Species: Canine

Date Received: **B6**

Tufts Cummings School of Vet Med -
Cardiology/Nutrition Tracking Number:
427078

GI Lab Accession: **B6**

Test	Result	Reference Interval	Assay Date
Ultra-Sensitive Troponin I Fasting	B6 ng/mL	≤0.06	B6

B6

Comments:

GI Lab Contact Information

Phone: (979) 862-2861
Fax: (979) 862-2864

Email: gilab@cvm.tamu.edu
vetmed.tamu.edu/gilab

Discharge Instructions

Patient

Name: B6
Species: Canine
Blonde Female (Spayed) Golden Retriever
Birthdate: B6

Owner

Name: B6
Address: B6

Patient ID: B6

Attending Cardiologist:

John E. Rush DVM, MS, DACVIM (Cardiology), DACVECC

B6

Cardiology Resident:

B6

Cardiology Technician:

B6

Student: B6 V19

Admit Date: B6

Discharge Date: B6

Diagnoses:

Dilated cardiomyopathy (DCM);
Intermittent ventricular arrhythmia.

Case summary:

Thank you for bringing B6 to the Tufts Cardiology Service for a recheck visit. On examination today, B6 had mild abdominal effort when breathing and had an intermittent arrhythmia when we were listening to her heart. On echocardiogram, her dilated cardiomyopathy (DCM) similar to when we last saw her in November. However, on electrocardiogram (ECG), B6 had an intermittent arrhythmia called ventricular bigeminy where one part of her heart has electrical activity that is abnormal. On chest X-rays, the lungs look slightly worse.

While she was here today, we were worried about how B6 was breathing, so we gave her an extra injectable dose of B6 and an extra oral dose (B6) which seemed to help her. This makes us believe that she needs some adjustments in her medications, as described below.

Monitoring at home:

- We would like you to monitor her breathing rate and effort at home, ideally during sleep or at a time of rest. The doses of drugs will be adjusted based on the breathing rate and effort.
- In general, most dogs with heart failure that is well controlled have a breathing rate at rest of less than 36 breaths

per minute. In addition, the breathing effort, noted by the amount of belly wall motion used for each breath, is fairly minimal if heart failure is controlled.

- An increase in breathing rate or effort will usually mean that you should give an extra dose of **B6** if difficulty breathing is not improved by within 30-60 minutes after giving ext **B6** then we recommend that a recheck exam be scheduled and/or that your dog be evaluated by an emergency clinic.
- There are instructions for monitoring breathing, and a form to help keep track of breathing rate and drug doses, on the Tufts HeartSmart web site (<http://vet.tufts.edu/heartsmart/at-home-monitoring/>).
- We also want you to watch for weakness or collapse, a reduction in appetite, worsening cough, or distention of the belly as these findings indicate that we should do a recheck examination.
- If you have any concerns, please call or have your dog evaluated by a veterinarian. Our emergency clinic is open 24 hours/day.

Recommended Medications:

B6

Diet suggestions:

Dogs with heart failure accumulate more fluid in their body if they eat large amounts of sodium (salt). Sodium can be found in all foods, but some foods are lower in sodium than others. Many pet treats, people foods, and supplements used to give pills often have more sodium than is desirable - a sheet that has suggestions for low sodium treats can be found on the HeartSmart web site (<http://vet.tufts.edu/heartsmart/diet/>)

Your dog's usual diet may also have more sodium than recommended - we want him/her to continue to eat his/her normal diet for the first 7 to 14 days so we can make sure he is tolerating medications well, but after that time we would recommend slowly introducing one of the lower sodium diets on the HeartSmart list (25% of the new diet and 75% old diet for 2-3 days, then 50/50, etc.). Hopefully you can find a diet on the list that your dog likes to eat. Alternatively, if you are attached to the current diet you can research the amount of sodium in the diet to ensure that the sodium content is similar to those on the list.

- The FDA is currently investigating an apparent association between diet and a type of heart disease called dilated cardiomyopathy. The exact cause is still unclear, but it appears to be associated with boutique diets and those containing exotic ingredient or are grain-free. Therefore, we are currently recommending that dogs do not eat these types of diets.

- We recommend switching B6 to commercial diet made by a well-established company that is not grain-free and does not contain any exotic ingredients, such as kangaroo, duck, lamb, venison, lentils, peas, beans, buffalo, tapioca, barley, and chickpeas.
- The FDA issued a statement regarding this issue (<https://www.fda.gov/AnimalVeterinary/NewsEvents/CVMUpdates/uom613305.htm>) and a recent article published by Dr. Lisa Freeman on the Cummings School's Pet Foodology blog can further explain these findings (<http://vetnutrition.tufts.edu/2018/06/a-broken-heart-risk-of-heart-disease-in-boutique-or-grain-free-diets-and-exotic-ingredients/>).
- Our nutritionists have compiled a list of dog foods that are good options for dogs with heart disease.

If your dog has special nutritional needs or requires a homecooked diet, we recommend you schedule an appointment with our nutritionists (508-887-4696).

Exercise Recommendations:

B6 can continue to have controlled leash walks. However, if you find that she is lagging behind or needs to stop on a walk then this was too long a walk and shorter walks are advised in the future. Repetitive or strenuous high energy activities (repetitive ball chasing, running fast off-leash, etc.) are generally not advised at this stage of heart failure.

Recheck Visits:

A recheck visit is recommended at B6, when we will recheck her echocardiogram and perform some blood tests.

Thank you for entrusting us with B6's care. Please contact our Cardiology liaison at (508)-887-4696 or email us at cardiovet@tufts.edu for scheduling and non-emergent questions or concerns.

Please visit our HeartSmart website for more information

<http://vet.tufts.edu/heartsmart/>

Prescription Refill Disclaimer:

For the safety and well-being of our patients, your pet must have had an examination by one of our veterinarians within the past year in order to obtain prescription medications.

Ordering Food:

Please check with your primary veterinarian to purchase the recommended diet(s). If you wish to purchase your food from us, please call 7-10 days in advance (508-887-4629) to ensure the food is in stock. Alternatively, veterinary diets can be ordered from online retailers with a prescription/veterinary approval.

Clinical Trials:

Clinical trials are studies in which our veterinary doctors work with you and your pet to investigate a specific disease process or a promising new test or treatment. Please see our website: vet.tufts.edu/cvmc/clinical-studies

Case B6

Owner B6

Discharge Instructions

Radiology Request & Report

Patient

Name: B6
Species: Canine
Blonde Female (Spayed) Golden
Retriever
Birthdate: B6

Owner

Name: B6
Address: B6

Patient ID: B6
Date of request: B6

Attending Clinician: B6 DVM (Resident - Cardiology)

Student: B6 V19

Date of exam: B6

Patient Location: Ward/Cage: cardio room

Weight (kg) 25.70

Sedation

- Inpatient
- Outpatient Time:
- Waiting
- Emergency

- BAG
- OBAG
- 1/2 dose OBAG
- DexDomitor/Butorphanol
- Anesthesia to sedate/anesthetize

Examination Desired: Thoracic rads RL + DV

Presenting Complaint and Clinical Questions you wish to answer:

Cardiology Recheck DCM. History of CHF on October 2018. Shortness of breath today. Worse DCM on echo today.

Pertinent History:

B6

Conclusions:

-Moderate to marked generalized cardiomegaly with moderate to marked left atrial enlargement are consistent with previous diagnosis of dilated cardiomyopathy. On this study, cardiogenic edema is thought less likely. Follow-up radiographs can be consider to monitor this possibility.
-Mild non-specific hepatomegaly.

Radiologists

Primary: [B6] DVM

Reviewing:

Dates

Reported [B6]

Finalized:

Cummings Veterinary Medical Center

AT TUFTS UNIVERSITY

Cardiology Liaison: 508-887-4696

B6

Patient ID: **B6**

B6 Canine
Years Old Female (Spayed) Golden Retriever
Blonde

Cardiology Appointment Report ENROLLED IN DCM STUDY

Date: **B6**

Attending Cardiologist:

John E. Rush DVM, MS, DACVIM (Cardiology), DACVECC

B6

Cardiology Resident:

B6

Cardiology Technician:

B6

Student: **B6** V19

Presenting Complaint:

Recheck DCM with a history of CHF

Concurrent Diseases:

None

General Medical History:

Diagnosed with DCM and CHF on **B6** enrolled in DCM study.

In the past week or so she is not as energized, not as interactive with O which is abnormal for her, going to sleep a lot earlier, slowing down significantly on her daily walk. Coughing/gagging again, about twice a day which also started about a week ago. Breathing sounds like she is wheezing on occasion especially when sleeping, also started in the last week. O unsure of respiratory rate during these episodes, though she does seem to have abdominal effort. Great appetite still, drinks a lot but has been since starting meds. Only change in routine is that O has been home more frequently in the last week or so.

Around christmas she had an episode where she collapsed on a walk and was unconscious. She had spit out some **B6** pills that day. Took some time to get back on track but had been normal up until this last week.

Diet and Supplements:

Purina true instinct turkey blend dry, 1 "scoop" twice a day, alpo dog treats daily
No supplements

Cardiovascular History:

Prior CHF diagnosis? yes

Prior heart murmur? yes

Prior ATE? no

Prior arrhythmia? no

Monitoring respiratory rate and effort at home? Yes, not super consistent about checking it, but when they do check it is around 24 on average, never above 40

Cough? Yes

Shortness of breath or difficulty breathing? Yes

Syncope or collapse? Yes in december

Sudden onset lameness? No, limps on a back leg occasionally, gets worse throughout the day, waxes and wanes

Exercise intolerance? Yes

Current Medications Pertinent to CV System:

B6

Recommended Taurine 1000mg PO q12h - have not started

Cardiac Physical Examination:

B6

Muscle condition:

Normal

Mild muscle loss

Moderate cachexia

Marked cachexia

Cardiovascular Physical Exam:

Murmur Grade:

None

I/VI

II/VI

IV/VI

V/VI

VI/VI

III/VI

Murmur location/description: left apical systolic

Jugular vein:

- Bottom 1/3 of the neck
- Middle 1/3 of the neck

- 1/2 way up the neck
- Top 2/3 of the neck

Arterial pulses:

- Weak
- Fair
- Good
- Strong

- Bounding
- Pulse deficits
- Pulsus paradoxus
- Other:

Arrhythmia:

- None
- Sinus arrhythmia
- Premature beats

- Bradycardia
- Tachycardia

Gallop:

- Yes
- No
- Intermittent

- Pronounced
- Other:

Pulmonary assessments:

- Eupneic
- Mild dyspnea
- Marked dyspnea
- Normal BV sounds

- Pulmonary crackles
- Wheezes
- Upper airway stridor

Abdominal exam:

- Normal
- Hepatomegaly
- Abdominal distension-mild cranial distension, non-painful on palpation, no masses/organomegaly/fluid wave noted

- Mild ascites
- Marked ascites

Problems:

DCM with a hx of CHF 10/31/18

Diagnostic plan:

- Echocardiogram
- Chemistry profile
- ECG
- Renal profile
- Blood pressure

- Dialysis profile
- Thoracic radiographs
- NT-proBNP
- Troponin I
- Other tests:

B6

Doppler findings:

1+ MR;

2+ TR;

Mitral inflow:

- Summated
- Normal
- Delayed relaxation

- Pseudonormal
- Restrictive

B6

Assessment and recommendations:

Findings consistent with poor but stable systolic dysfunction and cardiac size. Thoracic radiographs suggest mild active CHF and ECG reveals frequent ventricular arrhythmias which were not present before.

B6

recommended. NT-proBNP and Troponin were submitted. It is unclear at this point whether patient has primary DCM or diet-induced cardiomyopathy. However, it has been only 4 months and current diet should be maintained and additionally today Taurine 1000mg BID was started. Recommend recheck echocardiogram in 3 months or sooner in case patient develops clinical signs consistent with worsening of the disease.

Final Diagnosis:

- DCM with marked LA enlargement r/o primary DCM vs. diet-induced;
- Suspected active CHF.

Heart Failure Classification Score:

ISACHC Classification:

- Ia
- Ib
- II
- IIIa
- IIIb

ACVIM Classification:

- A
- C

- B1
- B2

D

M-Mode

IVSd	B6	cm
LVIDd		cm
LVPWd		cm
IVSs		cm
LVIDs		cm
LVPWs		cm
EDV(Teich)		ml
ESV(Teich)		ml
EF(Teich)		%
%FS		%
SV(Teich)		ml
Ao Diam		cm
LA Diam		cm
LA/Ao		
Max LA		cm
TAPSE		cm
EPSS	cm	

M-Mode Normalized

IVSdN	B6	{0.290 - 0.520}
LVIDdN		{1.350 - 1.730} !
LVPWdN		{0.330 - 0.530}
IVSsN		{0.430 - 0.710}
LVIDsN		{0.790 - 1.140} !
LVPWsN		{0.530 - 0.780}
Ao Diam N		{0.680 - 0.890} !
LA Diam N	{0.640 - 0.900} !	

2D

SA LA	B6	cm
Ao Diam		cm
SA LA / Ao Diam		
IVSd		cm
LVIDd		cm
LVPWd		cm
EDV(Teich)		ml
IVSs		cm
LVIDs		cm
LVPWs		cm
ESV(Teich)		ml
EF(Teich)		%
%FS		%
SV(Teich)		ml
LV Major		cm
LV Minor		cm

Sphericity Index
LVld LAX
LVAd LAX
LVEDV A-L LAX
LVEDV MOD LAX
LVls LAX
LVA_s LAX
LVESV A-L LAX
LVESV MOD LAX
HR
EF A-L LAX
LVEF MOD LAX
SV A-L LAX
SV MOD LAX
CO A-L LAX
CO MOD LAX

B6

cm
cm
ml
ml
cm
cm
ml
ml
BPM
%
%
ml
ml
l/min
l/min

Doppler
MR Vmax
MR maxPG
MV E Vel
MV DecT
MV Dec Slope
MV A Vel
MV E/A Ratio
E'
E/E'
A'
S'
AV Vmax
AV maxPG
PV Vmax
PV maxPG
TR Vmax
TR maxPG

B6

m/s
mmHg
m/s
ms
m/s
m/s

m/s

m/s
m/s
m/s
mmHg
m/s
mmHg
m/s
mmHg

B6

B6 Female (Spayed)
Canine Golden Retriever Blonde
Patient ID: **B6**

Outside Prescription Log

1. **B6**

2. **B6**

B6

4. **B6**

5. **B6**

6. **B6**

7.

B6

8. Date:

Clinician:

Prescription:

Pharmacy sent to:

Completed by:

Origin of request:

9. Date:

Clinician:

Prescription:

Pharmacy sent to:

Completed by:

Origin of request:

10. Date:

Clinician:

Prescription:

Pharmacy sent to:

Completed by:

Origin of request:

Discharge Instructions

Patient

Name: B6

Species: Canine

Blonde Female (Spayed) Golden

Retriever

Birthdate: B6

Owner

Name: B6

Address: B6

Patient ID: B6

Attending Cardiologist:

John E. Rush DVM, MS, DACVIM (Cardiology), DACVECC

B6

Cardiology Resident:

B6

Cardiology Technician:

B6

Student:

Admit Date: B6

Diagnoses:

- o Dilated cardiomyopathy (DCM)

Case summary:

Thank you for bringing B6 to the Tufts Cardiology Service for a recheck visit. We are happy to hear that B6 is doing well at home on her current medication regimen. On examination today, B6 vital parameters (heart rate and respiratory rate) were within normal limits. On echocardiogram, her dilated cardiomyopathy (DCM) is similar to when we last saw her in February (no worse). B6 respiratory rate and effort were increased during her echocardiogram and we administered an injectable dose of furosemide.

Today we drew blood to submit a serum chemistry and recheck NT-Pro-BNP and also collected urine for a urinalysis. We will call you tomorrow with the results of these tests.

Please continue to monitor B6 respiratory rate and effort at home. If it is increased in rate and effort, you can give one dose of B6 (another diuretic that is more potent than the furosemide). This medication can be used as a "rescue", and please let us know if you ever had to give her any dose. In case you notice that she is breathing with a respiratory rate higher than 32bpm (at rest), we can also take radiographs to look for signs of congestive heart failure.

When we call you tomorrow with bloodwork results we will discuss how her breathing has been at home.

Monitoring at home:

- We would like you to monitor her breathing rate and effort at home, ideally during sleep or at a time of rest. The doses of drugs will be adjusted based on the breathing rate and effort.
- In general, most dogs with heart failure that is well controlled have a breathing rate at rest of less than 36 breaths per minute. In addition, the breathing effort, noted by the amount of belly wall motion used for each breath, is fairly minimal if heart failure is controlled.
- An increase in breathing rate or effort will usually mean that you should give an extra dose of [B6]. If difficulty breathing is not improved by within 30-60 minutes after giving extra [B6] then we recommend that a recheck exam be scheduled and/or that your dog be evaluated by an emergency clinic.
- There are instructions for monitoring breathing, and a form to help keep track of breathing rate and drug doses, on the Tufts HeartSmart web site (<http://vet.tufts.edu/heartsmart/at-home-monitoring/>).
- We also want you to watch for weakness or collapse, a reduction in appetite, worsening cough, or distention of the belly as these findings indicate that we should do a recheck examination.
- If you have any concerns, please call or have your dog evaluated by a veterinarian. Our emergency clinic is open 24 hours/day.

Recommended Medications:

B6

Exercise Recommendations:

Continue to exercise restrict [B6] at home. Repetitive or strenuous high energy activities (repetitive ball chasing, running fast off-leash, etc.) are generally not advised at this stage of heart failure.

Recheck Visits:

A recheck visit is recommended at Tuesday, [B6] at 1pm, when we will recheck her echocardiogram and perform some blood tests.

Thank you for entrusting us with [B6] care. Please contact our Cardiology liaison at (508) 887-4696 or email us at cardiovet@tufts.edu for scheduling and non-emergent questions or concerns.

Please visit our HeartSmart website for more information

<http://vet.tufts.edu/heartsmart/>

Prescription Refill Disclaimer:

For the safety and well-being of our patients, your pet must have had an examination by one of our veterinarians within the past year in order to obtain prescription medications.

Ordering Food:

Please check with your primary veterinarian to purchase the recommended diet(s). If you wish to purchase your food from us, please call 7-10 days in advance (508-887-4629) to ensure the food is in stock. Alternatively, veterinary diets can be ordered from online retailers with a prescription/veterinary approval.

Clinical Trials:

Clinical trials are studies in which our veterinary doctors work with you and your pet to investigate a specific disease process or a promising new test or treatment. Please see our website: vet.tufts.edu/cvmc/clinical-studies

Case

B6

Owner

B6

Discharge Instructions

Cummings Veterinary Medical Center

AT TUFTS UNIVERSITY
Cardiology Liaison: 508-887-4696

B6

B6

Canine

Old Male (Neutered) English

Cocker Spaniel

Red/White BW: Weight (kg) 15.80

Cardiology Consultation ENROLLED IN DCM STUDY

Date: 1/22/2019

Weight: Weight (kg) 15.80

Requesting Clinician: **B6** DVM, MS, DACVS LA, DACVS SA

Attending Cardiologist:

John E. Rush DVM, MS, DACVIM (Cardiology), DACVECC

B6

Cardiology Resident:

B6

Thoracic radiographs available for review?

- Yes - in SS
- Yes - in PACS (from 12/6/18)
- No

Patient location: B ward

Presenting complaint and important concurrent diseases:

B6

B6

Current medications and doses:

B6

At-home diet: (name, form, amount, frequency)

Key indication for consultation: Murmur, left apex, 2-3/6

Questions to be answered:

New heart murmur heard on physical exam today. Safe to sedate for radiographs?

Is your consult time-sensitive? (e.g., anesthesia today, owner waiting, trying to get biopsy today)

- Yes (explain): radiographs today
- No

STOP - remainder of form to be filled out by Cardiology

B6

Muscle condition:

- Normal
- Mild muscle loss
- Moderate cachexia
- Marked cachexia

Cardiovascular Physical Exam

Murmur Grade:

- None
- I/VI
- II/VI
- III/VI
- IV/VI
- V/VI
- VI/VI

Murmur location/description: Left apical/mid cardiac systolic

Jugular vein:

- Bottom 1/3 of the neck
- Middle 1/3 of the neck
- Top 2/3 of the neck
- 1/2 way up the neck

Arterial pulses:

- Weak
- Fair
- Good
- Strong
- Bounding
- Pulse deficits
- Pulsus paradoxus
- Other (describe):

Arrhythmia:

- None
- Sinus arrhythmia
- Premature beats
- Bradycardia
- Tachycardia

Gallop:

- Yes
- No
- Intermittent
- Pronounced
- Other:

Pulmonary assessments:

- Eupneic
- Mild dyspnea
- Marked dyspnea
- Normal BV sounds
- Pulmonary Crackles
- Wheezes
- Upper airway stridor
- Other auscultatory findings:

Abdominal exam:

- Normal
- Hepatomegaly

- Abdominal distension
- Mild ascites

Echocardiogram Findings:

B6

Mitral inflow:

- Summated
- Normal
- Delayed relaxation
- Pseudonormal
- Restrictive

B6

Radiographic findings:

from 12/6: Enlarged cardiac silhouette with normal pulmonary parenchyma

Assessment and recommendations:

DCM (primary vs. diet related vs. toxin) with no LA enlargement. Given that the patient is on a lamb/grain free diet, we would recommend changing to a regular commercial diet. No medications are indicated at this time. The patient is enrolled in the DCM diet study. Recheck echocardiogram in 3 months per study schedule. For sedation today, we would recommend avoiding alpha-2 agonists.

B6

Final Diagnosis:

Asymptomatic DCM

Heart Failure Classification Score:

ISACHC Classification:

- Ia
- Ib
- II
- IIIa
- IIIb

ACVIM CHF Classification:

- A
- B1
- B2
- C
- D

M-Mode

IVSd

LVIDd

LVPWd

IVSs

LVIDs

LVPWs

EDV(Teich)

ESV(Teich)

EF(Teich)

%FS

SV(Teich)

Ao Diam

LA Diam

LA/Ao

Max LA

EPSS

B6

cm
cm
cm
cm
cm
ml
ml
%
%
ml
cm
cm
cm
cm

M-Mode Normalized

IVSdN

LVIDdN

LVPWdN

IVSsN

LVIDsN

LVPWsN

Ao Diam N

LA Diam N

B6

{0.290 - 0.520}
{1.350 - 1.730}
{0.330 - 0.530}
{0.430 - 0.710}
{0.790 - 1.140} !
{0.530 - 0.780}
{0.680 - 0.890}
{0.640 - 0.900}

2D

SA LA

Ao Diam

SA LA / Ao Diam

IVSd

LVIDd

LVPWd

EDV(Teich)

IVSs

LVIDs

LVPWs

ESV(Teich)

EF(Teich)

%FS

SV(Teich)

LVld LAX

LVAd LAX

LVEDV A-L LAX

LVEDV MOD LAX

LVLs LAX

B6

cm
cm
cm
cm
ml
cm
cm
cm
ml
%
%
ml
cm
cm
ml
ml
cm

LVA₆ LAX
LVESV A-L LAX
LVESV MOD LAX
HR
EF A-L LAX
LVEF MOD LAX
SV A-L LAX
SV MOD LAX
CO A-L LAX
CO MOD LAX

Doppler

MV E Vel
MV DecT
MV Dec Slope
MV A Vel
MV E/A Ratio
E'
E/E'
A'
S'
AV Vmax
AV maxPG
PV Vmax
PV maxPG

B6

cm
ml
ml
BPM
%
%
ml
ml
l/min
l/min

m/s
ms
m/s
m/s

m/s

m/s
m/s
m/s
mmHg
m/s
mmHg

Patient
Name:
Signalment:

B6 Old Red/White Male
(Neutered) English Cocker
Spaniel

Owner
Name:
Address:

B6

Patient ID:

B6

Contact Clinician:

B6

Alternate Clinician:
Student:

B6 V19

RE-EXAMINATION FORM

Date: 1/22/2019

Problem:

B6

History:

Thank you for bringing B6 to the Tufts Orthopedic Surgery Service for recheck radiographs (x-rays stabilization and B6 presented to the Tufts ER after he was B6

B6

You report that he is doing well at home, and is standing up and walking well. B6

Physical Examination:

B6

Procedures Performed & Future Plans:

Today B6 had a consult with our Cardiology department to evaluate his heart murmur prior to being sedated for radiographs. Cardiology found that B6 has a primary heart muscle disease called dilated cardiomyopathy (DCM). This disease is more common in large and giant breed dogs, and is characterized by thinning of the walls of the heart, reduced cardiac pump function, and enlargement of the upper chambers of the heart. This disease can be attributed to several factors; one potential cause of DCM is diet, especially diets that are grain-free or contain exotic ingredients. Based on B6's current diet and the findings of his cardiology evaluation, we recommend switching B6's diet; some recommendations are listed below. At this time B6 does not require any medications for his heart disease; however we recommend rechecking an echocardiogram (ultrasound of the heart) in 3 months. We also recommend starting B6 on a Taurine supplement, which may help the heart muscle. You have elected to enroll B6 in a study relating diet and dilated cardiomyopathy in dogs.

B6

Today we also drew blood to check B6 level. His level today was B6, which is higher than his previous level, but is within the reference range.

Medications:

1. B6

Home Instructions:

1. Activity Restriction: Since B6's radiographs look good we can begin to loosen his exercise restrictions. Since B6 has had decreased activity for the past few weeks, we want to gradually build up his exercise tolerance. You can gradually increase the length of his walks by 5 minutes every two weeks, until his next recheck.

2. Diet: The FDA is currently investigating an apparent association between diet and dilated cardiomyopathy. The exact cause is still unclear, but it appears to be associated with boutique diets and those containing exotic ingredient or are grain-free. Therefore, we are currently recommending that dogs do not eat these types of diets. We recommend switching B6 to commercial diet made by a well-established company that is not grain-free and does not contain any exotic ingredients, such as kangaroo, duck, lamb, venison, lentils, peas, beans, buffalo, tapioca, barley, and chickpeas. The FDA issued a statement regarding this issue

(<https://www.fda.gov/AnimalVeterinary/NewsEvents/CVMUpdates/uom613305.htm>) and a recent article published by Dr. Lisa Freeman on the Cummings School's Petfoodology blog can further explain these findings (<http://vetnutrition.tufts.edu/2018/06/a-broken-heart-risk-of-heart-disease-in-boutique-or-grain-free-diets-and-exotic-ingredients/>).

Our nutritionists have compiled a list of dog foods that are good options for dogs with heart disease.

Dry Food Options:

- Royal Canin Early Cardiac (veterinary diet)
- Royal Canin Bxer
- Purina Pro Plan Adult Weight Management
- Purina Pro Plan Bright Mind Adult Small Breed Formula

Canned Food Options:

- Hill's Science Diet Adult Beef and Barley Entree
- Hill's Science Diet Adult 1-6 Healthy Cuisine Roasted Chicken, Carrot, and Spinach Stew
- Royal Canin Mature 8+

If your dog has special nutritional needs or requires a homecooked diet, we recommend you schedule an appointment with our nutritionists (508-887-4696).

We would like to see B6. Please contact the Surgery Liaison at (508) 887-4794 to arrange your next appointment. If you have any problems or questions, please contact Dr. B6 DVM, MS, DACVS IA, DACVS SA as soon as possible. If it is an emergency, contact the emergency service at (508) 887-4623.

We have scheduled a recheck for B6 with our Cardiology service on Tuesday, 4/23/19 at 11:30am. Please contact our Cardiology liaison at (508)-887-4696 or email us at cardiovet@tufts.edu if you need to reschedule this appointment, or if you have any non-emergent questions or concerns.

You can schedule an appointment with our Nutrition service by calling 508-887-4696.

Prescription Refill Disclaimer:

For the safety and well-being of our patients, your pet must have had an examination by one of our veterinarians within the past year in order to obtain prescription medications.

Ordering Food:

Please check with your primary veterinarian to purchase the recommended diet(s). If you wish to purchase your food from us, please call 7-10 days in advance (508-887-4629) to ensure the food is in stock. Alternatively, veterinary diets can be ordered from online retailers with a

prescription/veterinary approval

Clinical Trials:

Clinical trials are studies in which our veterinary doctors work with you and your pet to investigate a specific disease process or a promising new test or treatment. Please see our website: vet.tufts.edu/cvmc/clinical-studies

Case: B6

Owner: B6 h

Discharge Instructions

Medical Record for 1/22/2019

Client:
Address:

B6

Patient: B6
Breed: English Cocker Spaniel
DOB: B6

Species: Canine
Sex: Male
(Neutered)

Referring Information

B6

Client: B6
Patient:

Initial Complaint:

B6

SOAP Text B6 11:31AM B6

Disposition/Recommendations

Client:
Patient:

B6

Client: **B6**
Patient:

Cummings
Veterinary Medical Center
AT TUFTS UNIVERSITY

Foster Hospital for Small Animals

55 Willard Street
North Grafton, MA 01536
(508) 839-5395

Client: **B6**
Veterinarian:
Patient ID:
Visit ID:

Patient:	B6
Species:	Canine
Breed:	English Cocker Spaniel
Sex:	Male (Neutered)
Age:	B6 Years Old

Lab Results Report

Phenobarbital	B6	11:31:00 AM	Accession ID:	B6
Test	Results	Reference Range	Units	
PHENOBARB	B6	10 - 40	ug/mL	



3/19

B6

Printed Monday, February 25, 2019

Client: **B6**
Patient:

IDEXX BNP - 1/23/2019

IDEXX Reference Laboratories

B6

Client: **B6**
Patient:
Species: CANINE
Breed: COCKER_SPANIEL
Gender: MALE
Age: 5Y

Date: 01/22/2019
Requisition #: 1
Accession: **B6**
Ordered by: **B6**

IDEXX VetConnect 1-888-433-9967
TUFTS UNIVERSITY
200 WESTBORO RD
NORTH GRAFTON, Massachusetts 01536
508-839-5395
Account #88933

CARDIOPET proBNP - CANINE

Test	Result	Reference Range	Low	Normal	High
CARDIOPET proBNP - CANINE	B6	0 - 900 pmol/L	HIGH		B6

Comments

1. **B6**

Please note: Complete interpretive comments for all concentrations of cardiopet proBNP are available in the online directory of services. Serum specimens received at room temperature may have decreased NT-proBNP concentrations.

Client: **B6**
Patient: **B6**

Discharge Checklist for Surgery **B6**

DISCHARGE CHECKLIST FOR SURGERY

Patient's Full Name **B6** Case # **B6**
Owner's Town **B6** Sx performed **B6**
Location of patient: *Board* Date of surgery **B6**
Dr. of record: **B6** Date of discharge: **B6**

- Pet is clean and dry
 - Catheter is removed and green bandage placed
 - Green bandage removed OR in rare instances owner instructed to remove
 - Biogard/Tegaderm is removed
 - Urinary catheter AND stay sutures are removed
 - Telemetry pads are removed
 - Orthopedic bandage removed, if applicable, otherwise instructions given to owner for bandage care.
 - d/c meds given to owner with instructions
 - owner informed when to start medications
 - owners meds returned
 - owner informed last time pet ate
 - collar/leash/personal belongings returned
 - e-collar given to owner, if necessary
 - recheck appointments not needed
- Or: Suture removal on _____
 Recheck x-rays on *in 6⁸ wks 3/26 10:00*
 bandage change on _____

This form MUST be placed on Leslie's desk after discharge. Thank you!

Date: **B6** me: *5* Student's name **B6**

Client: **B6**
Patient:

Taurine 1/22/19

Cummings School of Veterinary Medicine

Clinical Pathology Laboratory
200 Westboro Road
North Grafton, MA 01536

Name/DOB: **B6** Sex: CM Provider: **B6**
Patient ID: 343384 Age: 5 Order Location: V320559: Investigation into
Phone number: Species: Canine Sample ID: 1901220112
Collection Date: 1/22/2019 2:37 PM Breed: English Cocker Spaniel
Approval date: 1/31/2019 7:55 AM

TEST NAME	RESULT		RANGE	UNITS	REFERENCE RANGE
	IN RANGE	OUT OF RANGE			
Taurine Panel					TFRANK
Plasma Taurine 01/22/19 2:51 PM		B6 >40 nmol/mL=no risk for taurine deficiency		nmol/mL	60-120
Whole Blood Taurine 01/22/19 2:51 PM	B6	>200 nmol/ml=no risk for taurine deficiency		nmol/mL	200-350

Sample ID: 1901220112/1
END OF REPORT (Final)

Reviewed by: _____

Client: **B6**
Patient: **B6**

RDVM 2/2/19

B6

Saturday, February 02, 2019

Dr. **B6** in
Tufts Cummings Vet Medical Center
55 Willard St
North Grafton, MA 01536
FAX: (508) 839-7951

Re: **B6**
Spaniel, English Cocker, Neutered Male, **B6**
B6

Dear Dr. **B6**

B6

B6

B6

Client:
Patient:

B6

RDVM 2/2/19

Client: **B6**
Patient: **B6**

Amino Acid Labs Taurine Panel **B6**

B6

Amino Acid Laboratory Sample Submission Form

Amino Acid Laboratory, 1089 Veterinary Medicine Drive, Davis, Ca 95611
Telephone: 530-752-5058, Fax: 530-752-4698
Email: ucd.aminoacid.lab@ucdavis.edu
www.vetmed.ucdavis.edu/labs/amino-acid-laboratory

SHIP w ICE PACKS, TAURINE
PANEL
Lithium Heparin **B6**

Veterinarian Contact: Dr. **B6**

Clinic/Company Name: Tufts Cummings School of Vet. Med. - Clinical Pathology Laboratory

Address: 200 Westboro Road, North Grafton MA 015369

Email: Clinpath@tufts.edu cardiovet@tufts.edu

Telephone: 508-887-4669 Fax: 508-839-7936

Billing Contact: **B6** Email: **B6**

Billing Contact Phone: **B6** 7 Tax ID: _____

Patient Name: **B6** Species: canine

Breed: Cocker Owner's Name: **B6**

Current Diet: Acanu

Sample type: Plasma Whole Blood Urine Food Other _____

Test: Taurine Complete Amino Acids Other: _____

Taurine Results (lab use only)

Plasma: **B6** Whole Blood: **B6** confirmed Urine: _____ Food: _____

	Plasma (nMol/ml)		Whole Blood (nMol/ml)	
	Normal Range	No known risk for deficiency	Normal Range	No known risk for deficiency
Cat	80-120	>40	300-600	>200
Dog	60-120	>40	200-350	>150

* Please note with the recent increase in the number of dogs screened for taurine deficiency, we are seeing dogs with values within the reference ranges (or above the "no known risk for deficiency range") yet are still exhibiting signs of cardiac disease. Veterinarians are welcome to contact our laboratory for assistance in evaluating your patient's results.

Client: **B6**
Patient:

Amino Acid Labs Taurine Panel B6

UNIVERSITY OF CALIFORNIA, DAVIS

BERKELEY • DAVIS • IRVINE • LOS ANGELES • MERCED • RIVERSIDE • SAN DIEGO • SAN FRANCISCO



SANTA BARBARA • SANTA CRUZ

STERN CARDIAC GENETICS LABORATORY
JOSHUA A. STERN, DVM, PHD, DACVIM (CARDIOLOGY)
sterngenetics@ucdavis.edu; August 9, 2018

**FREQUENTLY REQUESTED INFORMATION REGARDING TAURINE & DILATED
CARDIOMYOPATHY IN GOLDEN RETRIEVERS**

Taurine reference ranges for Golden Retrievers: The Stern Lab suggests that the following clinical reference ranges be used for Golden Retrievers and be considered for other known taurine-sensitive breeds such as Newfoundlands or American Cocker Spaniels. This is primarily based on 3 observations :

1. Golden Retrievers with marginal taurine levels (defined below) have been diagnosed with dilated cardiomyopathy and have documented disease reversal after taurine supplementation and diet change.
2. Previously published work documents taurine sensitivity in Golden Retrievers.
3. The most recently published reference on normal blood taurine values shows higher levels than previously reported.

- o Normal whole blood taurine: >250nmol/mL
- o Normal plasma taurine: >70nmol/mL

- o Marginal whole blood taurine: 200-250nmol/mL
- o Marginal plasma taurine: 60-70nmol/mL

- o Low whole Blood taurine: <200nmol/mL
- o Low plasma taurine: <60nmol/mL

References:

- Kramer GA, Kittleson MD, Fox PR, Lewis J, Pion PD. Plasma taurine concentrations with normal dogs and in dogs with heart disease. *J Vet Intern Med* 1995;9:253-258.
- Belanger MC, Ouellet M, Queney G, Moreau M. Taurine-deficient dilated cardiomyopathy in a family of golden retrievers. *J Am Anim Hosp Assoc* 2005;41:284-291.
- Kittleson MD, Keene B, Pion PD, Loyer CG, MUST Study Investigators. Results of the multicenter spaniel trial (MUST): taurine- and carnitine-responsive dilated cardiomyopathy in American Cocker Spaniels with decreased plasma taurine concentration. *J Vet Intern Med* 1197;11:204-211.
- Backus RC, Choen G, Pion PD, Good KL, Rogers QR, Fascetti AJ. Taurine deficiency in Newfoundlands fed commercially available complete and balanced diets. *J Am Vet Med Assoc* 2003;223:1130-1136.
- Fascetti AJ, Reed JR, Rogers QR, Backus RC. Taurine deficiency in dogs with dilated cardiomyopathy: 12 cases (1997-2001). *J Am Vet Med Assoc* 2003;223:1137-1141.
- Freeman LM, Michel KE, Brown DJ, Kaplan PM, Stamoulis ME, Rosenthal SL, Keene BW, Rush JE. Idiopathic dilated cardiomyopathy in Dalmatians: nine cases (1990-1995). *J Am Vet Med Assoc* 1996;209:1592-1596.
- Delaney SJ, Kass PH, Rogers QR, Fascetti AJ. Plasma and whole blood taurine in normal dogs of varying size fed commercially prepared food. *J Anim Physiol a Anim Nutr* 2003;87:236-244.

Plasma vs. whole blood taurine testing:

If at all possible, we recommend that paired (plasma and whole blood) taurine samples be submitted for analysis. A low value on either or both tests is clinically relevant. If your dog is diagnosed with DCM, submitting paired taurine samples (plasma and whole blood) is imperative. We recommend that the UC Davis Amino Acid Laboratory be used for taurine testing, as this is where the literature utilized for our reference ranges was generated. <https://www.vetmed.ucdavis.edu/labs/amino-acid-laboratory>. If a single test is submitted the Stern Lab recommends that whole blood be submitted preferentially. This is due to the false elevation of taurine levels that is possible in plasma samples due to sample handling issues. This is an area of some debate between clinicians and conflicting information on preference for plasma vs. whole blood exists. This underscores the value of paired sampling.

Clinical Recommendations for Golden Retrievers based on taurine levels:

If taurine levels test <200nmol/mL in whole blood or <60nmol/mL in plasma

- An echocardiogram by a board-certified veterinary cardiologist is indicated
- After echocardiogram has been completed, a diet change is recommended.
 - If DCM is diagnosed, this patient may need a variety of cardiac medications that would be prescribed by the attending cardiologist.
 - If DCM is diagnosed, prescribed supplementation with oral taurine and l-carnitine is recommended.
 - Reevaluation of taurine levels is warranted after three months of diet change and supplementation.
 - Cardiology reevaluation schedules will be recommended by the attending clinician pending echocardiographic findings.
 - Many Golden Retrievers with taurine-deficient DCM in our study showed slow and steady improvement over a period of 6-12 months.

If taurine levels test 200 – 250nmol/mL in whole blood or 60-70nmol/mL in plasma

- An echocardiogram by a board-certified cardiologist is recommended.
- After echocardiogram has been completed, a diet change is recommended.
- We recognize that many dogs in this category may have normal echocardiograms and thus the value of screening should be carefully considered. If the dog is eating a diet that falls within the FDA warning or shares features with the diets identified in our study (see diets of concern section below), we encourage echocardiographic screening with greater enthusiasm.
- If an echocardiogram is not performed, a diet change is still recommended and a taurine level reevaluation after three months on the new diet should be considered.
- If DCM is diagnosed, this patient may need a variety of cardiac medications that would be prescribed by the attending cardiologist.
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If taurine levels test >250nmol/mL in whole blood or >70nmol/mL in plasma

- Diet change is recommended if you are feeding a diet that falls within the FDA warning or shares features with the diets identified in our study (see diets of concern section below)
- If your pet shows any signs of cardiac disease (trouble breathing, exercise intolerance, fainting/collapse, coughing) we recommend your veterinarian evaluate your pet.

Client: **B6**
Patient:

Amino Acid Labs Taurine Panel B6

Diets of Concern & Choosing a diet

The FDA alert called attention to several dietary ingredients that should be considered when evaluating whether your pet is at risk (for example legumes like peas and lentils, white or sweet potatoes). These findings were largely recapitulated in our current study of Golden Retrievers with low taurine levels and DCM. Our lab considers these ingredients to be of greatest concern when present within the first 5 listed ingredients on the dog food bag. Additionally, we noted a high percent of diets in our study were using protein sources other than chicken or beef and labeled as grain-free.

Points to consider when making a diet change:

- Choose a diet that does not contain the concerning components listed above
- Choose a diet that meets the WSAVA Global Nutrition Assessment Guidelines published as consensus by veterinary nutritionists from around the world:
 - <https://www.wsava.org/WSAVA/media/Arpita-and-Emma-editorial/Selecting-the-Best-Food-for-your-Pet.pdf>
- FDA alert found here:
 - <https://www.fda.gov/AnimalVeterinary/NewsEvents/CVMUpdates/ucm613305.htm>

Choosing a taurine or l-carnitine supplement:

Selecting supplements should be performed based upon those that match their stated contents and are readily available for absorption. Luckily a previous publication tested multiple taurine and l-carnitine supplements. Based upon this publication our laboratory recommends the following supplements as those meeting our quality criteria. (Bragg et al. 2009 J Am Vet Med Assoc; 234(2))

Tested taurine supplements that test within 5% of stated contents and if applicable disintegrated within 30 minutes

- Mega taurine caps by Twinlab (1000 capsule)
- Taurine by Swanson Health Products (500mg capsule)
- Taurine by NOW foods (500mg capsule)
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- L-carnitine 500 by Jarrow Formulas (500mg capsule)
- L-carnitine caps by Country Life (500mg capsule)
- Maxi L-carnitine by Solgar Vitamin and Herb (500mg tablet)
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The Stern lab does not recommend the empirical supplementation of taurine or l-carnitine to dogs without evidence of DCM and/or significant deficiency. If DCM is diagnosed we typically recommend dogs over 50lbs receive 1000mg of taurine every 12hrs and dogs under 50lbs receive 500mg of taurine every 12hours. We recommend L-carnitine at a dose of ~50mg/kg orally with food every 8hrs. Your veterinary cardiologist or family veterinarian should be consulted for prescribing the best dose for your dog.

Reporting to the FDA:

Understanding the basis of this condition requires a great deal of research and investigation. Clients with affected dogs can contribute their data to help propel this research forward. You can report cases of taurine deficiency, dilated cardiomyopathy, sudden cardiac death, or any combination of these events to the FDA by following the information found here:

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Additional questions or comments:
sterngenetics@ucdavis.edu
This document last updated: Aug. 20, 2018

Page 3 of 3

Client:
Patient:

B6

Amino Acid Labs Taurine Panel 1/22/19



CARDIOLOGY SERVICE UPDATES: DOG FOOD & DILATED CARDIOMYOPATHY

The Cardiology Service has developed this document in response to the alerts from the FDA. These alerts identify an associated risk for some grain-free diets containing certain ingredients (legumes like peas, pea components, lentils; white potatoes, sweet potatoes) and a diagnosis of dilated cardiomyopathy (DCM). The links provided throughout this document can be copied and pasted to obtain additional information.

FDA Alerts found here:

<https://www.fda.gov/AnimalVeterinary/NewsEvents/CVMUpdates/ucm613305.htm>

<https://www.fda.gov/AnimalVeterinary/ResourcesforYou/AnimalHealthLiteracy/ucm616279.htm>

What is Dilated Cardiomyopathy (DCM)?

DCM is a heart muscle disorder that results in a weak pump function and heart chamber enlargement. In the early stages of this disease pets may appear totally healthy with no apparent clinical signs. Later in the course of this disease, dogs may have a heart murmur, an arrhythmia (irregular heart beat), collapse episodes, weakness or tiredness with exercise, and even trouble breathing from congestive heart failure. While there are some breeds of dogs (like Dobermans) that have a genetic predisposition to development of DCM, there are also nutritional factors that may result in this disease.

What should I do?

If you are feeding a diet of concern based upon the FDA alert we recommend that you consult with your veterinarian or veterinary cardiologist. We provide 4 general points for guidance below:

1. An initial step is to **consider whether you are willing or interested in performing additional testing** to assess whether your pet is affected with DCM. If you believe your dog is at risk, showing any of the aforementioned clinical signs or would prefer to simply rule out any heart disease, we recommend that you first have your pet's taurine levels tested (both whole blood and plasma levels) as well as seek an echocardiogram by a board-certified veterinary cardiologist. Low taurine levels are associated with development of DCM in dogs and are sometimes a component of this current issue.

Information on taurine testing can be found here: <https://www.vetmed.ucdavis.edu/labs/amino-acid-laboratory>

2. At this time, **diet change is recommended when possible** and should be considered regardless of the results obtained from any testing. You can consult with your veterinarian in selecting a new diet that avoids the ingredients of concern listed by the FDA. When selecting this diet, we recommend that you choose a diet that is manufactured with rigorous quality control measures and research behind the formulation. A way to ensure that your diet meets these recommendations is to follow the following guidelines that were generated by a large number of the world's leading experts in veterinary nutrition.

Food selection guidelines found here:

<https://www.wsava.org/WSAVA/media/Arpita-and-Emma-editorial/Selecting-the-Best-Food-for-your-Pet.pdf>

3. If your pet is identified through testing to have a low blood taurine level or evidence of DCM by echocardiogram, we urge you to **report this information to the FDA**.

FDA reporting guidelines found here: <https://www.fda.gov/AnimalVeterinary/SafetyHealth/ReportaProblem/ucm182403.htm>

4. **Work with your veterinarian(s)** to determine the best course of action and medical treatments if indicated. In the case of a DCM diagnosis, diet change alone may not be sufficient and additional medications may be prescribed.

Please continue to monitor the FDA website and the UC Davis School of Veterinary Medicine Newsfeeds for updates and recommendations regarding this issue.

Client:
Patient:

B6

Diet history 2/13/19

_____	_____
_____	_____
_____	_____
_____	_____

3. How do you administer pills to your pet?

- I do not give any medications
- I put them directly in my pet's mouth without food
- I put them in my pet's dog/cat food
- I put them in a Pill Pocket or similar product
- I put them in foods (list foods): Mostly banana slices or pure peanut butter.

Client: **B6**
Patient:

Vitals Results

B6	3:10:53 PM	Nursing note	B6
	4:15:34 PM	Nursing note	

Client: **B6**
Patient:

ECG from Cardio

B6

B6

2:59:42 PM

Tufts University
Tufts Cummings School of Vet Med
Cardiology

B6

Client: **B6**
Patient:

ECG from Cardio

B6

B6

3:00:04 PM

Tufts University
Tufts Cummings School of Vet Med
Cardiology

B6

Client: **B6**
Patient:

Patient History

B6	1:28 AM	UserForm	B6
	1:31 AM	Purchase	
	1:36 AM	UserForm	
	1:41 AM	UserForm	
	1:46 PM	Treatment	
	1:47 PM	Purchase	
	2:08 PM	Prescription	
	2:10 PM	Prescription	
	2:13 PM	Prescription	
	2:28 PM	Deleted Reason	
	3:10 PM	Treatment	
	3:10 PM	Purchase	
	3:10 PM	Vitals	
	4:15 PM	Treatment	
	4:15 PM	Vitals	
	4:27 PM	Purchase	
	4:27 PM	Deleted Reason	
	4:27 PM	Deleted Reason	
	5:24 PM	Purchase	
	5:24 PM	Purchase	
5:24 PM	Purchase		
5:24 PM	Purchase		
6:02 PM	Purchase		
6:45 PM	Email		
9:35 AM	Purchase		
11:08 AM	Purchase		

Medical Record for **B6**

Client: **B6**
Address: **B6**

Patient: **B6**
Breed: English Cocker Spaniel
DOB: **B6**

Species: Canine
Sex: Male
(Neutered)

Home Phone: **B6**
Work Phone: **B6**
Cell Phone: **B6**

Referring Information

B6
Client: **B6**
Patient: **B6**

Initial Complaint:

B6

SOAP Text **B6** 11:31AM - **B6**

Disposition/Recommendations

Client:
Patient:

B6

Client: **B6**
Patient:

Cummings
Veterinary Medical Center
AT TUFTS UNIVERSITY

Foster Hospital for Small Animals

55 Willard Street
North Grafton, MA 01536
(508) 839-5395

Client: **B6**
Veterinarian:
Patient ID:
Visit ID:

Patient:	B6
Species:	Canine
Breed:	English Cocker Spaniel
Sex:	Male (Neutered)
Age:	B6 Years Old

Lab Results Report

Phenobarbital	B6	11:31:00 AM	Accession ID:	B6
Test	Results	Reference Range	Units	
PHENOBARB	B6	10 - 40	ug/mL	



3/19

B6

Printed Monday, February 25, 2019

Client: **B6**
Patient: **B6**

IDEXX BNP - 1/23/2019

IDEXX Reference Laboratories

Client: **B6** Patient: **B6**

Client: **B6**
Patient: **B6**
Species: CANINE
Breed: COCKER_SPANIEL
Gender: MALE
Age: 5Y

Date: **B6**
Requisition #: **B6**
Accession #: **B6**
Ordered by: **ev**

IDEXX VetConnect 1-888-433-9967
TUFTS UNIVERSITY
200 WESTBORO RD
NORTH GRAFTON, Massachusetts 01536
508-839-5395
Account #88933

CARDIOPET proBNP - CANINE

Test	Result	Reference Range	Low	Normal	High
CARDIOPET proBNP - CANINE	B6	0 - 900 pmol/L	HIGH		B6

Comments:

1. **B6**

Please note: Complete interpretive comments for all concentrations of cardiopet proBNP are available in the online directory of services. Serum specimens received at room temperature may have decreased NT-proBNP concentrations.

Client: **B6**
Patient: **B6**

Discharge Checklist for Surgery **B6**

DISCHARGE CHECKLIST FOR SURGERY

Patient's Full Name **B6** **B6**
Owner's Town **B6** Sx performed **B6**
Location of patient: *Board* Date of surgery **B6**
Dr. of record: **B6** Date of discharge **B6**

- Pet is clean and dry
 - Catheter is removed and green bandage placed
 - Green bandage removed OR in rare instances owner instructed to remove
 - Biogard/Tegaderm is removed
 - Urinary catheter AND stay sutures are removed
 - Telemetry pads are removed
 - Orthopedic bandage removed, if applicable, otherwise instructions given to owner for bandage care.
 - d/c meds given to owner with instructions
 - owner informed when to start medications
 - owners meds returned
 - owner informed last time pet ate
 - collar/leash/personal belongings returned
 - e-collar given to owner, if necessary
 - recheck appointments not needed
- Or: Suture removal on _____
 Recheck x-rays on *in 6⁸ wks 3/26 10:00*
 bandage change on _____

This form MUST be placed on Leslie's desk after discharge. Thank you!

Date **B6** Time: *5* Student's name **B6**

Client: **B6**
Patient:

Taurine: **B6**

Cummings School of Veterinary Medicine
Clinical Pathology Laboratory
200 Westboro Road
North Grafton, MA 01536

Name/DOB: **B6** Sex: CM Provider: **B6**
Patient ID: **B6** Age: 5 Order Location: V320559: Investigation into
Phone number: Species: Canine Sample ID: 1901220112
Collection Date: 1/22/2019 2:37 PM Breed: English Cocker Spaniel
Approval date: 1/31/2019 7:55 AM

TEST NAME	RESULT		RANGE	UNITS	REFERENCE RANGE
	IN RANGE	OUT OF RANGE			
Taurine Panel					TFRANK
Plasma Taurine 01/22/19 2:51 PM		B6 >40 nmol/mL=no risk for taurine deficiency	B6	nmol/mL	60-120
Whole Blood Taurine 01/22/19 2:51 PM	B6	>200 nmol/mL=no risk for taurine deficiency	B6	nmol/mL	200-350

Sample ID: 1901220112/1
END OF REPORT (Final)

Reviewed by: _____

Client: **B6**
Patient: **B6**

RDVM 2/2/19

B6

Saturday, February 02, 2019

Dr. **B6**
Tufts Cummings Vet Medical Center
55 Willard St
North Grafton, MA 01536
FAX: (508) 839-7951

Re: **B6**
Spaniel, English Cocker, Neutered Male; **B6**
B6

Dear Dr. **B6**

B6

B6

B6

Sincerely,
B6

Client:
Patient:

B6

RDVM 2/2/19

Client:
Patient:

B6

Amino Acid Labs Taurine Panel 1/22/19

26999 PL D
WB 5

B6

Amino Acid Laboratory Sample Submission Form

Amino Acid Laboratory, 1089 Veterinary Medicine Drive, Davis, Ca 95616
Telephone: 530-752-5058, Fax: 530-752-4698
Email: ucd.aminoacid.lab@ucdavis.edu
www.vetmed.ucdavis.edu/labs/amino-acid-laboratory

SHIP w ICE PACKS, TAURINE
PANEL
Lithium Heparin

B6

Veterinarian Contact: Dr. **B6**

Clinic/Company Name: Tufts Cummings School of Vet. Med. - Clinical Pathology Laboratory

Address: 200 Westboro Road, North Grafton MA 015369

Email: Clinpath@tufts.edu cardiovet@tufts.edu

Telephone: 508-887-4669 Fax: 508-839-7936

Billing Contact: **B6** Email: **B6**@tufts.edu

Billing Contact Phone: **B6** Tax ID: _____

Patient Name: **B6** Species: canine

Breed: Cocker Owner's Name: **B6**

Current Diet: Acanu

Sample type: Plasma Whole Blood Urine Food Other _____

Test: Taurine Complete Amino Acids Other: _____

Taurine Results (lab use only)

Plasma **B6** Whole Blood: **B6** *confirmed* Urine: _____ Food: _____

	Plasma (nMol/ml)		Whole Blood (nMol/ml)	
	Normal Range	No known risk for deficiency	Normal Range	No known risk for deficiency
Cat	80-120	>40	300-600	>200
Dog	60-120	>40	200-350	>150

* Please note with the recent increase in the number of dogs screened for taurine deficiency, we are seeing dogs with values within the reference ranges (or above the "no known risk for deficiency range") yet are still exhibiting signs of cardiac disease. Veterinarians are welcome to contact our laboratory for assistance in evaluating your patient's results.

Client: **B6**
Patient:

Amino Acid Labs Taurine Panel 1/22/19

UNIVERSITY OF CALIFORNIA, DAVIS

BERKELEY • DAVIS • IRVINE • LOS ANGELES • MERCED • RIVERSIDE • SAN DIEGO • SAN FRANCISCO



SANTA BARBARA • SANTA CRUZ

STERN CARDIAC GENETICS LABORATORY
JOSHUA A. STERN, DVM, PHD, DACVIM (CARDIOLOGY)
sterngenetics@ucdavis.edu; August 9, 2018

**FREQUENTLY REQUESTED INFORMATION REGARDING TAURINE & DILATED
CARDIOMYOPATHY IN GOLDEN RETRIEVERS**

Taurine reference ranges for Golden Retrievers: The Stern Lab suggests that the following clinical reference ranges be used for Golden Retrievers and be considered for other known taurine-sensitive breeds such as Newfoundlands or American Cocker Spaniels. This is primarily based on 3 observations :

1. Golden Retrievers with marginal taurine levels (defined below) have been diagnosed with dilated cardiomyopathy and have documented disease reversal after taurine supplementation and diet change.
2. Previously published work documents taurine sensitivity in Golden Retrievers.
3. The most recently published reference on normal blood taurine values shows higher levels than previously reported.

- o Normal whole blood taurine: >250nmol/mL
- o Normal plasma taurine: >70nmol/mL

- o Marginal whole blood taurine: 200-250nmol/mL
- o Marginal plasma taurine: 60-70nmol/mL

- o Low whole Blood taurine: <200nmol/mL
- o Low plasma taurine: <60nmol/mL

References:

- Kramer GA, Kittleson MD, Fox PR, Lewis J, Pion PD. Plasma taurine concentrations with normal dogs and in dogs with heart disease. *J Vet Intern Med* 1995;9:253-258.
- Belanger MC, Ouellet M, Queney G, Moreau M. Taurine-deficient dilated cardiomyopathy in a family of golden retrievers. *J Am Anim Hosp Assoc* 2005;41:284-291.
- Kittleson MD, Keene B, Pion PD, Loyer CG, MUST Study Investigators. Results of the multicenter spaniel trial (MUST): taurine- and carnitine-responsive dilated cardiomyopathy in American Cocker Spaniels with decreased plasma taurine concentration. *J Vet Intern Med* 1197;11:204-211.
- Backus RC, Choen G, Pion PD, Good KL, Rogers QR, Fascetti AJ. Taurine deficiency in Newfoundlands fed commercially available complete and balanced diets. *J Am Vet Med Assoc* 2003;223:1130-1136.
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Client:
Patient:

B6

Amino Acid Labs Taurine Panel 1/22/19

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Additional questions or comments:
sterngenetics@ucdavis.edu
This document last updated: Aug. 20, 2018

Page 3 of 3

Client:
Patient:

B6

Amino Acid Labs Taurine Panel 1/22/19



CARDIOLOGY SERVICE UPDATES: DOG FOOD & DILATED CARDIOMYOPATHY

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<https://www.fda.gov/AnimalVeterinary/ResourcesforYou/AnimalHealthLiteracy/ucm616279.htm>

What is Dilated Cardiomyopathy (DCM)?

DCM is a heart muscle disorder that results in a weak pump function and heart chamber enlargement. In the early stages of this disease pets may appear totally healthy with no apparent clinical signs. Later in the course of this disease, dogs may have a heart murmur, an arrhythmia (irregular heart beat), collapse episodes, weakness or tiredness with exercise, and even trouble breathing from congestive heart failure. While there are some breeds of dogs (like Dobermans) that have a genetic predisposition to development of DCM, there are also nutritional factors that may result in this disease.

What should I do?

If you are feeding a diet of concern based upon the FDA alert we recommend that you consult with your veterinarian or veterinary cardiologist. We provide 4 general points for guidance below:

1. An initial step is to **consider whether you are willing or interested in performing additional testing** to assess whether your pet is affected with DCM. If you believe your dog is at risk, showing any of the aforementioned clinical signs or would prefer to simply rule out any heart disease, we recommend that you first have your pet's taurine levels tested (both whole blood and plasma levels) as well as seek an echocardiogram by a board-certified veterinary cardiologist. Low taurine levels are associated with development of DCM in dogs and are sometimes a component of this current issue.

Information on taurine testing can be found here: <https://www.vetmed.ucdavis.edu/labs/amino-acid-laboratory>

2. At this time, **diet change is recommended when possible** and should be considered regardless of the results obtained from any testing. You can consult with your veterinarian in selecting a new diet that avoids the ingredients of concern listed by the FDA. When selecting this diet, we recommend that you choose a diet that is manufactured with rigorous quality control measures and research behind the formulation. A way to ensure that your diet meets these recommendations is to follow the following guidelines that were generated by a large number of the world's leading experts in veterinary nutrition.

Food selection guidelines found here:

<https://www.wsava.org/WSAVA/media/Arpita-and-Emma-editorial/Selecting-the-Best-Food-for-your-Pet.pdf>

3. If your pet is identified through testing to have a low blood taurine level or evidence of DCM by echocardiogram, we urge you to **report this information to the FDA**.

FDA reporting guidelines found here: <https://www.fda.gov/AnimalVeterinary/SafetyHealth/ReportaProblem/ucm182403.htm>

4. **Work with your veterinarian(s)** to determine the best course of action and medical treatments if indicated. In the case of a DCM diagnosis, diet change alone may not be sufficient and additional medications may be prescribed.

Please continue to monitor the FDA website and the UC Davis School of Veterinary Medicine Newsfeeds for updates and recommendations regarding this issue.

Client:
Patient:

B6

Diet history 2/13/19

_____	_____
_____	_____
_____	_____
_____	_____

3. How do you administer pills to your pet?

- I do not give any medications
- I put them directly in my pet's mouth without food
- I put them in my pet's dog/cat food
- I put them in a Pill Pocket or similar product
- I put them in foods (list foods): __Mostly banana slices or pure peanut butter.

Client: **B6**
Patient:

Vitals Results

B6	3:10:53 PM	Nursing note	B6
	4:15:34 PM	Nursing note	

Client:
Patient:

B6

ECG from Cardio

B6

B6

2:59:42 PM

Tufts University
Tufts Cummings School of Vet Med
Cardiology

B6

Client: **B6**
Patient:

ECG from Cardio

B6

B6

3:00:04 PM

Tufts University
Tufts Cummings School of Vet Med
Cardiology

B6

Client:
Patient:

B6

Patient History

B6	11:28 AM	UserForm	B6
	11:31 AM	Purchase	
	11:36 AM	UserForm	
	11:41 AM	UserForm	
	01:46 PM	Treatment	
	01:47 PM	Purchase	
	02:08 PM	Prescription	
	02:10 PM	Prescription	
	02:13 PM	Prescription	
	02:28 PM	Deleted Reason	
	03:10 PM	Treatment	
	03:10 PM	Purchase	
	03:10 PM	Vitals	
	04:15 PM	Treatment	
	04:15 PM	Vitals	
	04:27 PM	Purchase	
	04:27 PM	Deleted Reason	
	04:27 PM	Deleted Reason	
	05:24 PM	Purchase	
	05:24 PM	Purchase	
05:24 PM	Purchase		
05:24 PM	Purchase		
06:02 PM	Purchase		
04:45 PM	Email		
09:35 AM	Purchase		
11:08 AM	Purchase		

NC State College of Veterinary Medicine

Veterinary Cardiac Genetics Laboratory

1060 William Moore Dr., RB 326
Raleigh, NC 27607
vcgl@lists.ncsu.edu
(919) 513-3314



To request swab collection kits, please visit:
<https://cvm.ncsu.edu/genetics/cheek-swab-request/>

Boxer Arrhythmogenic Right Ventricular Cardiomyopathy (ARVC) Testing

Arrhythmogenic right ventricular cardiomyopathy (ARVC) is a fairly common form of heart disease in the boxer dog. It is inherited and our laboratory has identified a mutation responsible for the gene in some boxers. However, it should be noted that in human beings with the same disease, there are many different genetic mutations which can cause this disease. We do not yet know if this is the only mutation in the boxer or if there will be many different mutations. Please keep in mind that we are continually learning about this disease and recommendations will be altered as we obtain more information.

Owner Name:

B6

Boxer ARVC Result: **Negative**

Dog's Name:

ID #:

B6

Below is an explanation for each possible test result so you can better understand all the possible results and make informed breeding decisions:

Negative:	Negative dogs have two copies of the normal, unmutated gene. The absence of the mutation in a dog does not mean that it will never develop the disease. It means that it does not have the only known mutation that can cause ARVC in Boxers at this time.
Positive Heterozygous:	Positive Heterozygous dogs have 1 copy of the mutated gene and 1 copy of a normal gene. Dogs that are positive heterozygous should be carefully evaluated for signs of disease (Holter monitor and possibly an echocardiogram). If an arrhythmia is detected, possible treatment options should be discussed with your veterinarian.
Breeding recommendations:	Adult dogs that do not show signs of disease and that have other positive attributes could be bred to mutation negative dogs. Puppies may be screened for the mutation and over a few generations, mutation negative puppies may be selected to replace the mutation positive parent and gradually decrease the number of mutation positive dogs in the population.
Positive Homozygous:	Positive Homozygous dogs have 2 copies of the mutated gene. Dogs that are homozygous for the mutation appear to have more significant disease.
Breeding recommendations:	We recommend not breeding the homozygous dogs. Dogs that test positive homozygous will certainly pass on the mutation to their offspring.



As always, breeding decisions should be made carefully. Removal of a significant number of dogs from the breeding population could be very bad for the Boxer breed. Remember that dogs that carry this mutation may also carry other important good genes that we do not want to lose from the breed.





Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

Network Procedures for Owners

The purpose of this Network Procedure is to help you, the owner, understand how the Veterinary Laboratory Investigation and Response Network (Vet-LIRN) Program Office conducts case investigations (follow up to consumer complaints).

The following items are explained below:

- General Introduction
- Billing
- Step by Step Process
- Types of Services and Tests

1. General Introduction:

1.1. What is the goal of the case investigation?

The goal of the case investigation is to determine if the product is causing your pet's illness. Our case investigation **MAY NOT** provide a definitive diagnosis for your pet's illness, although we may rule out several other potential reasons for your pet's illness.

1.2. What is the focus of a case investigation?

Most case investigations focus on diagnostic samples (such as blood, urine or tissue from the pet), although we occasionally request and test pet food samples.

1.3. What is my veterinarian's role during the case investigation?

Your veterinarian helps our investigation into FDA- regulated products by providing information about your pet's medical history and by obtaining any diagnostic samples like blood, urine or tissue.

1.4. What will Vet-LIRN ask of me during a case investigation?

We may ask that your veterinarian perform certain tests or services or provide diagnostic samples to FDA or a Vet-LIRN cooperating laboratory.



Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

1.5. Will Vet-LIRN pay for tests or services requested?

Yes, we will pay veterinarians or laboratories *for tests or services requested by Vet-LIRN* and approved through our government purchasing system. We cannot, however, reimburse owners for tests already performed or not specifically requested by Vet-LIRN. We recommend that you discuss with your veterinarian which tests and services will be billed to you and which will be covered by Vet-LIRN. For instance, Vet-LIRN may request that your veterinarian perform a urinalysis on your pet while he or she is hospitalized. Vet-LIRN will pay for the collection and testing of the sample, but would not cover the cost of your pet's stay in the hospital.

1.6. Is the information received in the consumer complaint confidential?

Generally, the information received in the consumer complaint is not kept confidential. In most cases, only protected personal information (such as names and addresses) is withheld in an effort to prevent the complaint from being traced back to the individual who submitted it.

2. Billing:

2.1. Will Vet-LIRN pay for bills related to the case investigation?

Vet-LIRN will cover the cost of services and testing that we specifically request. You should understand that Vet-LIRN *CANNOT* reimburse owners for any veterinary bills. Services *MUST* be pre-authorized and paid directly to the veterinarian.

2.2. Will Vet-LIRN pay for testing that was not requested by Vet-LIRN?

No, we will only pay for testing that we request and authorize.

2.3. Will Vet-LIRN pay for treatments or private cremation?

No, we cannot pay for treatment or cremation.



Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

2.4. If I allow my veterinarian to submit my pet's body for testing, will I be able to have back his or her remains?

Each Vet-LIRN member laboratory has its own procedures for handling remains. Some Vet-LIRN member laboratories offer private cremation services for a fee payable directly to the laboratory. We advise you to discuss directly with the member laboratory the possibilities and costs for obtaining your pet's remains after examination are complete.

3. Step by Step Process:

Vet-LIRN will do the following during a case investigation:

- 3.1. Assign a case number which **MUST** be included in all correspondences
- 3.2. Discuss the case with you and your veterinarian
- 3.3. Request medical records from your veterinarian
- 3.4. Coordinate with your veterinarian and you to obtain and submit samples for testing
- 3.5. Provide results to your veterinarian who will discuss the results with you.

Vet-LIRN requests that:

- 3.6. Any follow-up veterinary visits related to the investigation are reported to Vet-LIRN
- 3.7. Additional laboratory reports are reported to Vet-LIRN by your veterinarian.

4. Types of Services and Tests:

4.1. What may a veterinary examination include once the case investigation is started?

A veterinary examination may include:

- an office visit and physical examination to assess your animals current health
- collection of clinical samples from your animal (blood, urine, feces).

4.2. Will your animal be tested more than once?



Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

It is possible that Vet-LIRN may request additional tests or examinations depending on results from initial testing.

4.3. Will Vet-LIRN need to conduct a necropsy in the event of an animal death?

Yes, if you are willing, we may request that your veterinarian or another Vet-LIRN cooperating laboratory to conduct a necropsy to collect samples for testing. The samples collected may be tested right away or may be held for future testing or archiving. If the veterinarian completes the necropsy then the remains will be handled according to the veterinarian's normal procedures. If a Vet-LIRN cooperative laboratory completes the necropsy the remains are usually disposed of by that laboratory. Vet-LIRN cannot pay for private cremation. You are welcome to discuss normal procedures with the laboratory.

4.4. Will Vet-LIRN ask for a food sample?

Our main focus is on testing diagnostic tissue or fluid samples from the animal, but we may need to test the food. Please hold all food samples once the consumer complaint is submitted. If needed, we will make arrangements to collect the food.

4.5. What are some general tests that Vet-LIRN may request?

General tests that we may request include, but are not limited to:

- Hematology
- Microbial cultures
- Urinalysis
- Fecal examination
- Necropsy/Histology/Toxicology

4.6. Will I get results from Vet-LIRN requested tests?

Results of testing on your animal's diagnostic tissue or fluid samples will be forwarded to your veterinarian who will be asked to share the results with you.

From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
To: Jones, Jennifer L; Peloquin, Sarah; Guag, Jake
Sent: 7/1/2019 3:32:24 PM
Subject: [REDACTED] euthanized

Hi Jen and all

[REDACTED] one of the dogs in our study (Cocker Spaniel with heart failure, mitral valve disease but reduced contractility) and that we reported to you, was euthanized on [REDACTED]. The RDVM is holding the body in case you'd like the heart but I wasn't sure if it would be too autolyzed at this point. Can you let me know either way asap so that I can update the vet?

Thanks

Lisa

Lisa M. Freeman, DVM, PhD, DACVN
Board Certified Veterinary Nutritionist™
Professor
Cummings School of Veterinary Medicine
Friedman School of Nutrition Science and Policy
Tufts Clinical and Translational Science Institute
Tufts University
www.petfoodology.org

From: Jones, Jennifer L </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0F6CA12EAA9348959A4CBB1E829AF244-JENNIFER.JO>
To: Freeman, Lisa
CC: Peloquin, Sarah; Guag, Jake
Sent: 7/2/2019 1:41:29 PM
Subject: RE: [REDACTED] euthanized

Good morning Lisa,
Thank you for the update about [REDACTED]. I'm sorry to hear that she passed away. Currently, we are not collecting more tissues for DCM histopathology except on a case-by-case basis. We will not request histopathology or tissue for [REDACTED] case.
Thank you again,
Jen

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
Sent: Monday, July 01, 2019 11:32 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>; Guag, Jake <Jake.Guag@fda.hhs.gov>
Subject: [REDACTED] euthanized

Hi Jen and all

[REDACTED], one of the dogs in our study (Cocker Spaniel with heart failure, mitral valve disease but reduced contractility) and that we reported to you, was euthanized on [REDACTED]. The RDVM is holding the body in case you'd like the heart but I wasn't sure if it would be too autolyzed at this point. Can you let me know either way asap so that I can update the vet?

Thanks
Lisa

Lisa M. Freeman, DVM, PhD, DACVN
Board Certified Veterinary Nutritionist™
Professor
Cummings School of Veterinary Medicine
Friedman School of Nutrition Science and Policy
Tufts Clinical and Translational Science Institute
Tufts University
www.petfoodology.org

All Medical Records

Client: [B6]
Address: [B6]

Patient: [B6]
Breed: Bulldog Cross
DOB: [B6]

Species: Canine
Sex: Male
(Neutered)

Home Phone: [B6]
Work Phone: () -
Cell Phone: [B6]

Referring Information

[B6]

Client: [B6]
Patient: [B6]

Initial Complaint:

Emergency

SOAP Text [B6] 6:17PM [B6]

NEW VISIT (ER) [B6]

Doctor: [B6], DVM

Student: [B6] V'19

Presenting complaint: [B6]

Referral visit? Yes

Diagnostics completed prior to visit (approximately 2 PM on [B6]):

[B6]

HISTORY

Signalment: 10 yr. M/C Bulldog mix

Current history: Owner states that for the past 3-4 weeks, [B6] has been eating random things out of the garbage (children's crayons, cat food cans) but only become anorexic 3 days ago. [B6] vomited 3 times yesterday and 1 time this morning, consisting of bile and has not been drinking. Owner does not notice any change in behavior or lethargy (owner says patient is typically quiet and sleeps a lot). rDVM performed abdominal radiographs and CBC/chem and referred patient here for further evaluation.

Prior medical history: [B6] Adopted from rescue organization when [B6] was approximately 9 months old. Patient is [B6] well controlled.

Client: **B6**
Patient:

Current medications: **B6**

Diet: Raw Limited Ingredient Salmon

EXAM

B6

ASSESSMENT

A1: Arrhythmia - suspect atrial fibrillation secondary to enlarged left atrium

A2: **B6**

PLAN

B6

Client: **B6**
Patient: **B6**

Resuscitation code (if admitting to ICU): **B6**

SOAP approved (DVM to sign): **B6**, DVM

SOAP Text **B6** 6:11AM - **B6**

B6

HISTORY

Signalment: 10 yr. M/C Bulldog mix

Current history: Owner states that for the past 3-4 weeks **B6** has been eating random things out of the garbage (children's crayons, cat food cans) but only become anorexic 3 days ago. **B6** vomited 3 times yesterday and 1 time this morning, consisting of bile and has not been drinking. Owner does not notice any change in behavior or lethargy (owner says patient is typically quiet and sleeps a lot). rDVM performed abdominal radiographs and CBC/chem and referred patient here for further evaluation.

Prior medical history: Ear infections and seasonal atopy managed with shampoos and limited ingredient diet. Adopted from rescue organization where **B6** was approximately 9 months old. Patient is hypothyroid; well controlled.

Current medications: **B6**

Diet: Raw Limited Ingredient Salmon - Rawz for about 1.5-2 years, but been on grain free for a long time
Might have tried hydrolyzed food in the past but unsure

EXAM

B6

ASSESSMENT

- A1: Arrhythmia - suspect atrial fibrillation secondary to enlarged left atrium
- A2: Vomiting - r/o gastritis vs pancreatitis vs neoplasia vs obstruction vs other

Client:
Patient:

B6

PLAN

B6

Disposition/Recommendations

Client:
Patient:

B6

Client: **B6**
 Patient: **B6**

Cummings
Veterinary Medical Center
 AT TUFTS UNIVERSITY

Foster Hospital for Small Animals

55 Willard Street
 North Grafton, MA 01536
 (508) 839-5395

Client: **B6**
 Veterinarian:
 Patient ID: **B6**
 Visit ID:

Patient:	B6
Species:	Canine
Breed:	Bulldog Cross
Sex:	Male (Neutered)
Age:	B6 Years Old

Lab Results Report

Nova Full Panel-ICU **B6** 8:52:25 PM Accession ID: **B6**

Test	Results	Reference Range	Units
SO2%	B6	94 - 100	%
HCT (POC)		38 - 48	%
HB (POC)		12.6 - 16	g/dL
NA (POC)		140 - 154	mmol/L
K (POC)		3.6 - 4.8	mmol/L
CL(POC)		109 - 120	mmol/L
CA (ionized)		1.17 - 1.38	mmol/L
MG (POC)		0.1 - 0.4	mmol/L
GLUCOSE (POC)		80 - 120	mg/dL
LACTATE		0 - 2	mmol/L
BUN (POC)		12 - 28	mg/dL
CREAT (POC)		0.2 - 2.1	mg/dL
TCO2 (POC)		0 - 0	mmol/L
nCA		0 - 0	mmol/L
nMG		0 - 0	mmol/L
GAP		0 - 0	mmol/L
CA/MG		0 - 0	mol/mol
BEeef		0 - 0	mmol/L
BEb		0 - 0	mmol/L
A		0 - 0	mmHg
NOVA SAMPLE	0 - 0		



Client: **B6**
 Patient: **B6**

FiO2	B6	0 - 0	%
PCO2		36 - 44	mmHg
PO2		80 - 100	mmHg
PH		7.337 - 7.467	
PCO2		36 - 44	mmHg
PO2		80 - 100	mmHg
HCO3		18 - 24	mmol/L

Nova Full Panel-ICU **B6** 8:54:03 PM Accession ID: **B6**

Test	Results	Reference Range	Units
HW ANTIGEN-CANINE	B6	0 - 0	
LYME C6		0 - 0	
A.PHAGO/PLATYS		0 - 0	
E CANIS/EWINGI		0 - 0	

Nova Full Panel-ICU **B6** 8:54:13 PM Accession ID: **B6**

Test	Results	Reference Range	Units
WBC (ADVIA)	B6	4.4 - 15.1	K/uL
RBC(ADVIA)		5.8 - 8.5	M/uL
HGB(ADVIA)		13.3 - 20.5	g/dL
HCT(ADVIA)		39 - 55	%
MCV(ADVIA)		64.5 - 77.5	fL
MCH(ADVIA)		21.3 - 25.9	pg
MCHC(ADVIA)		31.9 - 34.3	g/dL
RDW (ADVIA)		11.9 - 15.2	
PLT(ADVIA)		173 - 486	K/uL
MPV (ADVIA)		8.29 - 13.2	fl
PLTCRT		0.129 - 0.403	%
RETIC(ADVIA)		0.2 - 1.6	%
RETICS (ABS) ADVIA		14.7 - 113.7	K/uL
COMMENTS (HEMATOLOGY)		0 - 0	

Nova Full Panel-ICU **B6** 8:54:27 PM Accession ID: **B6**

Test	Results	Reference Range	Units
GLUCOSE	B6	67 - 135	mg/dL
UREA		8 - 30	mg/dL
CREATININE		0.6 - 2	mg/dL
PHOSPHORUS		2.6 - 7.2	mg/dL
CALCIUM2		9.4 - 11.3	mg/dL
MAGNESIUM 2+		1.8 - 3	mEq/L
T. PROTEIN		5.5 - 7.8	g/dL
ALBUMIN		2.8 - 4	g/dL
GLOBULINS	2.3 - 4.2	g/dL	



Client: **B6**
 Patient: **B6**

A/G RATIO		0.7 - 1.6	
SODIUM		140 - 150	mEq/L
CHLORIDE		106 - 116	mEq/L
POTASSIUM		3.7 - 5.4	mEq/L
tCO2 (BICARB)		14 - 28	mEq/L
AGAP		8 - 19	
NA/K		29 - 40	
T BILIRUBIN	B6	0.1 - 0.3	mg/dL
D.BILIRUBIN		0 - 0.1	mg/dL
I BILIRUBIN		0 - 0.2	mg/dL
ALK PHOS		12 - 127	U/L
GGT		0 - 10	U/L
ALT		14 - 86	U/L
AST		9 - 54	U/L
CK		22 - 422	U/L

6068 Result(s) verified

CHOLESTEROL		82 - 355	mg/dL
TRIGLYCERIDES	B6	30 - 338	mg/dl
AMYLASE		409 - 1250	U/L
OSMOLALITY (CALCULATED)		291 - 315	mmol/L

Nova Full Panel-ICU **B6** 8:54:11 PM Accession ID: **B6**

Test	Results	Reference Range	Units
SEGS%		43 - 86	%
LYMPHS%		7 - 47	%
MONOS%	B6	1 - 15	%
SEGS (AB)ADVIA		2.8 - 11.5	K/uL
LYMPHS (ABS)ADVIA		1 - 4.8	K/uL
MONOS (ABS)ADVIA		0.1 - 1.5	K/uL
WBC MORPHOLOGY		0 - 0	
Occasional reactive lymphocytes			
ACANTHOCYTES		0 - 0	
KERATOCYTES/BLISTER CELLS	B6	0 - 0	
POIKILOCYTOSIS		0 - 0	
SCHISTOCYTES		0 - 0	
SPHEROCYTES		0 - 0	

Nova Full Panel-ICU **B6** 8:54:00 PM Accession ID: **B6**

Test	Results	Reference Range	Units
CBC Review		0 - 0	
See comment.	B6		



Client: **B6**
Patient: **B6**

finding: **B6** DVM PhD DACVP

Nova Full Panel-ICU **B6** 8:54:00 PM Accession ID: **B6**

Test	Results	Reference Range	Units
T4/TOSOH	B6	1 - 4.1	ug/dl

Nova Full Panel-ICU **B6** 8:58:31 PM Accession ID: **B6**

Test	Results	Reference Range	Units
TS (FHSA)		0 - 0	g/dl
PCV **	B6	0 - 0	%
TS (FHSA)		0 - 0	g/dl



9/52

B6

Printed Monday, October 08, 2018

Client:
Patient:

B6

RDVM

B6

medical records 5/31/18-10/4/18

PAGE:

PATIENT
NAME

OWNER'S
NAME

DATE			PROB. NO.	SOAP
MO.	DAY	YR.		

MEDICAL RECORD

B6

Client:
Patient:

B6

RDVN

B6

medical records 5/31/18-10/4/18

PAGE:

PATIENT NAME					OWNER'S NAME	
MO.	DATE	YR.	PROB. NO.	SOAP	MEDICAL RECORD	
	DAY					

B6

Client: **B6**
Patient:

RDVM: **B6** medical records 5/31/18-10/4/18

PATIENT NAME					OWNER'S NAME	
MO.	DATE DAY	YR.	PROB. NO.	SOAP	MEDICAL RECORD	

B6

Client: **B6**
Patient:

RDVM **B6** records 5/31/18-10/4/18

PATIENT NAME					OWNER'S NAME	
MO.	DATE	PROB. NO.	SOAP	MEDICAL RECORD		
DAY	YR.					

B6

B6		called	B6	for:
-----------	--	--------	-----------	------

B6

Client: **B6**
Patient:

RDVM **B6** medical records 5/31/18-10/4/18

PATIENT NAME					PAGE:	
OWNER'S NAME					OWNER'S NAME	
MO.	DAY	YR.	PROB. NO.	SOAP	MEDICAL RECORD	

B6

B6

Client: **B6**
Patient:

RDVM **B6** medical records 5/31/18-10/4/18

PATIENT NAME					OWNER'S NAME	
MO.	DATE		PROB. NO.	SOAP	MEDICAL RECORD	
	DAY	YR.				

B6

Client: **B6**
Patient:

RDVM **B6** medical records 5/31/18-10/4/18

PATIENT NAME					PAGE:		OWNER'S NAME
MO.	DATE		PROB. NO.	SOAP	MEDICAL RECORD		
	DAY	YR.					
B6							

MO.	DATE	PROB. NO.	SOAP	

Client:
Patient:

B6

RDVM

B6

medical records 5/31/18-10/4/18

B6

Client:
Patient:

B6

RDVM

B6

medical records 5/31/18-10/4/18

B6

Client: **B6**
Patient:

RDVM **B6** medical records 5/31/18-10/4/18

B6

Client: **B6**
Patient: **B6**

RDVM **B6** medical records 5/31/18-10/4/18

Client: **B6** Gender: Male/Castrated
B6 Weight: 70.40 lbs
Patient Name: **B6** Age: 10 Years
Species: Canine Doctor: **B6** DVM
Breed:

Test Results Reference Interval LOW NORMAL HIGH

ProCyte Dx **B6** 1:24 PM **B6** 9:37 AM

RBC	B6	5.65 - 8.87			
HCT	B6	37.3 - 61.7	LOW		
HGB	B6	13.1 - 20.5			
MCV	B6	65.6 - 73.9	LOW		
MCH	B6	21.2 - 25.9			
MCHC	B6	32.0 - 37.9			
RDW	B6	13.6 - 21.7			
%RETIC	B6				
RETIC	B6	10.0 - 110.0			
RETIC-HGB	B6	22.3 - 29.6			
WBC	B6	5.05 - 16.76			
%NEU	B6				
%LYM	B6				
%MONO	B6				
%EOS	B6				
%BASO	B6				
NEU	B6	2.85 - 11.64			
LYM	B6	1.05 - 5.10	LOW		
MONO	B6	0.16 - 1.12			
EOS	B6	0.38 - 1.25	LOW		
BASO	B6	0.00 - 0.10			
PLT	B6	148 - 484			
MPV	B6	8.7 - 13.2			
PDW	B6	9.1 - 19.4			
PCT	B6	0.14 - 0.46			

B6

B6

RBC Run

WBC Run

B6

Printed: **B6** 3:32 PM

Page 1 of 2

B6

Client: **B6**
Patient: **B6**

RDVM **B6** medical records 5/31/18-10/4/18

Client: **B6** Gender: Male/Castrated
B6 Weight: 70.40 lbs
Patient Name: **B6** Age: 10 Years
Species: Canine Doctor: **B6** DVM
Breed:

Test Results Reference Interval LOW NORMAL HIGH

Catalyst One **B6** 1:32 PM

B6
9:53 AM

GLU		70 - 143	
CREA		0.5 - 1.8	
BUN		7 - 27	
BUN/CREA			
PHOS		2.5 - 6.8	
CA		7.9 - 12.0	
TP		5.2 - 8.2	
ALB		2.2 - 3.9	
GLOB		2.5 - 4.5	
ALB/GLOB			
ALT	B6	10 - 115	HIGH
ALKP		23 - 212	
GGT		0 - 11	
TBIL		0.0 - 0.9	
CHOL		110 - 320	
AMY		500 - 1600	LOW
LIPA		200 - 1800	
Na		144 - 160	
K		3.5 - 5.8	
Na/K			
Cl		109 - 122	
Osm Calc			

B6

Printed **B6** 018 1:32 PM

Page 2 of 2

B6

Client:
Patient:

B6

RDVM

B6

test results

B6

B6

17:46

B6

B6

PAGE 02/03

B6

B6

Test Results

B6

Log#:

B6

Patient Name:

B6

Diets Recommended

- Iams - Skin & Coat Plus Response FP: Potato, herring meal, catfish, animal fat, beet pulp, fish digest (Dry)
- FirstMate - Grain Free Wild Tuna Formula: Tuna, water, potato, kale (Can)
- FirstMate - Grain Free Salmon Formula: Wild boneless/skinless salmon, water, potato, kale (Can)
- Hill's - d/d Canine Salmon Formula: Water, salmon, potato, potato starch, potato protein, soybean oil, fish oil, powdered cellulose (Can)
- Brothers Complete - Bare Bites: Beef liver (Treat)
- Canine Caviar - Turkey: Turkey, water, turkey liver, guar gum (Can); Can be mixed with potato
- Canine Caviar - Duck: Duck, duck liver, sweet potatoes, water, guar gum (Can)
- Hill's - d/d Canine Duck Formula: Water, duck, potato, duck liver, potato starch, soybean oil, powdered cellulose, fish oil (Can)
- Hill's - d/d Canine Venison Formula: Water, venison, potatoes, potato starch, potato protein, soybean oil, powdered cellulose, fish oil (Can)
- Canine Caviar - Venison: Venison, water, venison tripe, venison liver, guar gum (Can); Can be mixed with potato
- Iams - Response KO: Oat flour, kangaroo, canola meal, animal fat, beet pulp, fish oil (Dry)
- Canine Caviar - Beaver: Beaver, water, guar gum (Can)
- Canine Caviar - Buffalo: Buffalo, water, guar gum (Can)



Websites: www.alphastraps.com • www.eukanoba.com • www.iamsiams.com • www.hills.com • www.naturalbalance.com • www.mutualofamerica.com • www.royalcanin.com • www.wellness.com

B6

Rests You Can Trust

Client: B6
Patient: B6

RDVM: B6 test results B6

B6 17:45 B6 B6

B6

B6

B6 **Test Results**

Date Received: B6 Date Returned: B6 Account No.: B6
Clinic: B6
Address: B6
City: B6 State/Province: B6 Zip/Postal Code: B6 Country:
Phone: B6 FAX: B6
Log#: B6 Patient Name: B6 Breed: Bulldog Mix Age: 7yr M Species: Dog
Owner's First Name: B6 Owner's Last Name: B6

B6

Client: **B6**
Patient:

Vitals Results

4:57:35 PM	Heart Rate (/min)
4:57:36 PM	Respiratory Rate
4:57:37 PM	Temperature (F)
4:57:38 PM	Weight (kg)
7:23:44 PM	Heart Rate (/min)
7:23:45 PM	Temperature (F)
7:23:46 PM	Respiratory Rate
9:34:16 PM	Amount eaten
10:12:31 PM	Cardiac rhythm
10:12:32 PM	Heart Rate (/min)
10:12:52 PM	Respiratory Rate
11:52:54 PM	Cardiac rhythm
11:52:55 PM	Heart Rate (/min)
11:53:07 PM	Eliminations
11:53:16 PM	Respiratory Rate
1:00:47 AM	Cardiac rhythm
1:00:48 AM	Heart Rate (/min)
1:37:16 AM	Catheter Assessment
1:38:12 AM	Respiratory Rate
1:50:37 AM	Cardiac rhythm
1:50:38 AM	Heart Rate (/min)
2:49:03 AM	Cardiac rhythm
2:49:04 AM	Heart Rate (/min)
3:35:48 AM	Respiratory Rate
3:36:03 AM	Cardiac rhythm
3:36:04 AM	Heart Rate (/min)
4:44:11 AM	Cardiac rhythm
4:44:12 AM	Heart Rate (/min)
5:37:23 AM	Weight (kg)
5:37:33 AM	Eliminations
5:38:50 AM	Respiratory Rate
5:39:04 AM	Catheter Assessment
5:39:36 AM	Temperature (F)
6:30:19 AM	Cardiac rhythm
6:30:20 AM	Heart Rate (/min)
7:28:56 AM	Respiratory Rate
8:01:55 AM	Cardiac rhythm
8:01:56 AM	Heart Rate (/min)
8:55:50 AM	Cardiac rhythm

B6

B6

Client:
Patient:

B6

Vitals Results

8:55:51 AM	Heart Rate (/min)
8:56:45 AM	Catheter Assessment
10:04:36 AM	Cardiac rhythm
10:04:37 AM	Heart Rate (/min)
10:05:26 AM	Respiratory Rate
11:07:25 AM	Cardiac rhythm
11:07:26 AM	Heart Rate (/min)
11:12:49 AM	Respiratory Rate
11:13:11 AM	Eliminations
12:20:08 PM	Blood Pressure (mmHg)
12:28:05 PM	Cardiac rhythm
12:28:06 PM	Heart Rate (/min)
12:55:30 PM	Cardiac rhythm
12:55:31 PM	Heart Rate (/min)
1:40:43 PM	Cardiac rhythm
1:40:44 PM	Heart Rate (/min)
1:42:42 PM	Respiratory Rate
1:42:50 PM	Catheter Assessment
2:56:24 PM	Cardiac rhythm
2:56:25 PM	Heart Rate (/min)
3:50:38 PM	Cardiac rhythm
3:50:39 PM	Heart Rate (/min)
3:51:17 PM	Respiratory Rate
4:53:34 PM	Cardiac rhythm
4:53:35 PM	Heart Rate (/min)
5:26:51 PM	Weight (kg)
5:27:11 PM	Catheter Assessment
5:27:40 PM	Eliminations
5:28:37 PM	Cardiac rhythm
5:28:38 PM	Heart Rate (/min)
5:31:07 PM	Respiratory Rate
5:31:19 PM	Temperature (F)
5:42:41 PM	Amount eaten
6:26:38 PM	Cardiac rhythm
6:26:39 PM	Heart Rate (/min)
7:11:26 PM	Respiratory Rate
7:33:30 PM	Cardiac rhythm
7:33:31 PM	Heart Rate (/min)
8:37:08 PM	Cardiac rhythm
8:37:09 PM	Heart Rate (/min)
9:04:40 PM	Catheter Assessment

B6

B6

Client: **B6**
Patient:

Vitals Results

9:04:48 PM	Respiratory Rate
10:11:22 PM	Cardiac rhythm
10:11:23 PM	Heart Rate (/min)
10:36:23 PM	Cardiac rhythm
10:36:24 PM	Heart Rate (/min)
11:20:49 PM	Eliminations
11:20:56 PM	Respiratory Rate
11:21:56 PM	Cardiac rhythm
11:21:57 PM	Heart Rate (/min)
1:40:01 AM	Catheter Assessment
1:40:50 AM	Cardiac rhythm
1:40:51 AM	Heart Rate (/min)
1:41:04 AM	Respiratory Rate
3:26:17 AM	Cardiac rhythm
3:26:18 AM	Heart Rate (/min)
3:26:43 AM	Respiratory Rate
3:30:08 AM	Cardiac rhythm
3:30:09 AM	Heart Rate (/min)
4:27:51 AM	Cardiac rhythm
4:27:52 AM	Heart Rate (/min)
5:53:01 AM	Cardiac rhythm
5:53:02 AM	Heart Rate (/min)
5:55:46 AM	Catheter Assessment
5:55:59 AM	Amount eaten
5:56:30 AM	Respiratory Rate
6:00:21 AM	Weight (kg)
6:00:27 AM	Eliminations
6:00:34 AM	Temperature (F)
6:41:18 AM	Cardiac rhythm
6:41:19 AM	Heart Rate (/min)
7:34:31 AM	Blood Pressure (mmHg)
7:35:00 AM	Cardiac rhythm
7:35:01 AM	Heart Rate (/min)
7:35:25 AM	Respiratory Rate
8:37:50 AM	Cardiac rhythm
8:37:51 AM	Heart Rate (/min)
9:59:36 AM	Cardiac rhythm
9:59:37 AM	Heart Rate (/min)
10:02:17 AM	Respiratory Rate
10:02:31 AM	Catheter Assessment
10:50:27 AM	Cardiac rhythm

B6

B6

Client:
Patient:

B6

Vitals Results

B6	10:50:28 AM	Heart Rate (/min)	B6
	11:29:06 AM	Eliminations	
	11:55:39 AM	Cardiac rhythm	
	11:55:40 AM	Heart Rate (/min)	
	11:55:49 AM	Respiratory Rate	
	12:45:30 PM	Cardiac rhythm	
	12:45:31 PM	Heart Rate (/min)	
	1:44:51 PM	Cardiac rhythm	
	1:44:52 PM	Heart Rate (/min)	
	2:07:26 PM	Respiratory Rate	
	2:07:35 PM	Catheter Assessment	
	2:57:59 PM	Cardiac rhythm	
	2:58:00 PM	Heart Rate (/min)	

Client:
Patient:

B6

ECG from Cardio

B6

B6

11:54:36 AM

Tufts University
Tufts Cummings School of Vet Med
Cardiology

12 Lead: Standard Placement

B6

Client: **B6**
Patient:

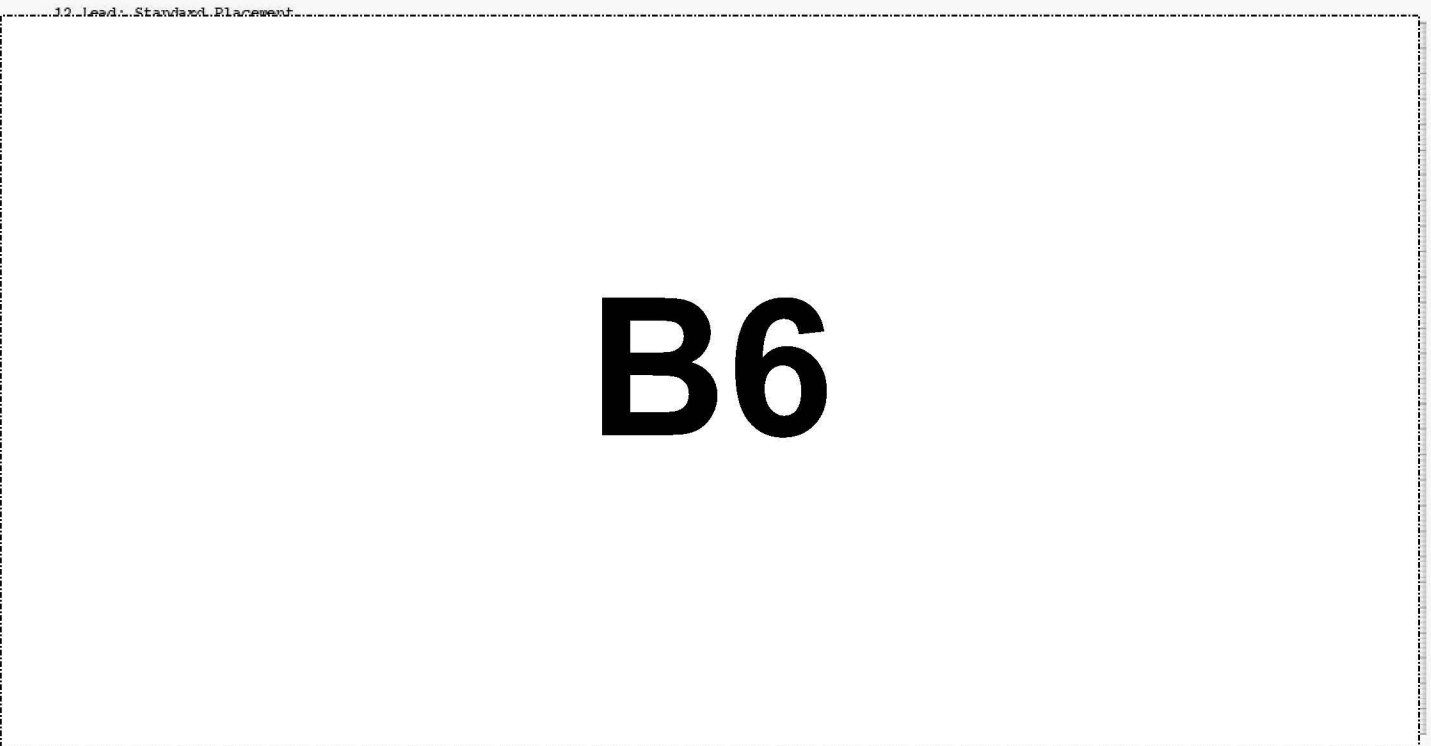
ECG from Cardio

B6

B6

11:54:52 AM

Tufts University
Tufts Cummings School of Vet Med
Cardiology



Client:
Patient:

B6

Patient History

04:57 PM	Vitals
04:57 PM	Vitals
04:57 PM	Vitals
04:57 PM	Vitals
05:05 PM	UserForm
05:06 PM	UserForm
07:23 PM	Vitals
07:23 PM	Vitals
07:23 PM	Vitals
07:23 PM	Vitals
08:13 PM	UserForm
08:52 PM	Purchase
08:53 PM	Purchase
08:53 PM	Purchase
08:55 PM	Purchase
08:58 PM	Labwork
09:08 PM	Treatment
09:28 PM	Purchase
09:28 PM	Purchase
09:33 PM	Treatment
09:34 PM	Treatment
09:34 PM	Vitals
10:12 PM	Treatment
10:12 PM	Treatment
10:12 PM	Vitals
10:12 PM	Vitals
10:12 PM	Treatment
10:12 PM	Vitals
10:46 PM	Purchase
10:46 PM	Purchase
10:46 PM	Purchase
11:52 PM	Treatment
11:52 PM	Treatment
11:52 PM	Vitals
11:52 PM	Vitals
11:53 PM	Treatment
11:53 PM	Vitals
11:53 PM	Treatment
11:53 PM	Vitals
01:00 AM	Treatment
01:00 AM	Vitals
01:00 AM	Vitals

B6

B6

Client: **B6**
Patient:

Patient History

	01:33 AM	Treatment	
	01:37 AM	Treatment	
	01:37 AM	Vitals	
	01:38 AM	Treatment	
	01:38 AM	Vitals	
	01:50 AM	Treatment	
	01:50 AM	Vitals	
	01:50 AM	Vitals	
	02:49 AM	Treatment	
	02:49 AM	Vitals	
	02:49 AM	Vitals	
	03:35 AM	Treatment	
	03:35 AM	Vitals	
	03:36 AM	Treatment	
	03:36 AM	Vitals	
	03:36 AM	Vitals	
	04:03 AM	Prescription	
	04:44 AM	Treatment	
B6	04:44 AM	Vitals	B6
	04:44 AM	Vitals	
	05:30 AM	Treatment	
	05:37 AM	Treatment	
	05:37 AM	Treatment	
	05:37 AM	Vitals	
	05:37 AM	Treatment	
	05:37 AM	Vitals	
	05:38 AM	Treatment	
	05:38 AM	Vitals	
	05:39 AM	Treatment	
	05:39 AM	Vitals	
	05:39 AM	Treatment	
	05:39 AM	Vitals	
	06:30 AM	Treatment	
	06:30 AM	Treatment	
	06:30 AM	Vitals	
	06:30 AM	Vitals	
	06:30 AM	Vitals	
	07:28 AM	Treatment	
	07:28 AM	Vitals	
	07:56 AM	Purchase	
	08:01 AM	Treatment	

Client: **B6**
Patient:

Patient History

08:01 AM	Vitals
08:01 AM	Vitals
08:23 AM	Purchase
08:55 AM	Treatment
08:55 AM	Vitals
08:55 AM	Vitals
08:56 AM	Treatment
08:56 AM	Treatment
08:56 AM	Vitals
09:09 AM	Purchase
09:11 AM	Purchase
10:04 AM	Vitals
10:04 AM	Vitals
10:05 AM	Vitals
10:24 AM	Treatment
10:25 AM	Treatment
10:40 AM	UserForm
11:07 AM	Treatment
11:07 AM	Vitals
11:07 AM	Vitals
11:12 AM	Treatment
11:12 AM	Vitals
11:13 AM	Treatment
11:13 AM	Vitals
11:13 AM	Purchase
11:58 AM	Treatment
11:59 AM	Purchase
11:59 AM	Purchase
12:08 PM	Purchase
12:20 PM	Vitals
12:20 PM	Purchase
12:28 PM	Treatment
12:28 PM	Vitals
12:28 PM	Vitals
12:55 PM	Treatment
12:55 PM	Vitals
12:55 PM	Vitals
01:40 PM	Treatment
01:40 PM	Vitals
01:40 PM	Vitals
01:42 PM	Treatment
01:42 PM	Treatment

B6

B6

Client: **B6**
Patient:

Patient History

01:42 PM Vitals
01:42 PM Treatment
01:42 PM Vitals
02:12 PM Prescription
02:13 PM Purchase
02:42 PM Purchase
02:48 PM Treatment

02:56 PM Treatment

02:56 PM Vitals
02:56 PM Vitals
02:57 PM Treatment

03:50 PM Treatment

03:50 PM Vitals
03:50 PM Vitals
03:51 PM Treatment
03:51 PM Vitals
04:53 PM Treatment

04:53 PM Vitals
04:53 PM Vitals
05:26 PM Treatment
05:26 PM Vitals
05:27 PM Treatment
05:27 PM Treatment
05:27 PM Vitals
05:27 PM Treatment
05:27 PM Vitals
05:28 PM Treatment

05:28 PM Vitals
05:28 PM Vitals
05:31 PM Treatment
05:31 PM Vitals
05:31 PM Treatment
05:31 PM Vitals
05:32 PM Prescription
05:42 PM Treatment

05:42 PM Vitals
05:49 PM Prescription
06:24 PM Treatment

06:24 PM Treatment

06:26 PM Treatment

06:26 PM Vitals

B6

B6

Client: **B6**
Patient:

Patient History

06:26 PM	Vitals
07:11 PM	Treatment
07:11 PM	Vitals
07:33 PM	Treatment
07:33 PM	Vitals
07:33 PM	Vitals
08:37 PM	Treatment
08:37 PM	Vitals
08:37 PM	Vitals
08:59 PM	Treatment
09:04 PM	Treatment
09:04 PM	Treatment
09:04 PM	Vitals
09:04 PM	Treatment
09:04 PM	Vitals
09:13 PM	Purchase
09:13 PM	Purchase
10:11 PM	Treatment
10:11 PM	Vitals
10:11 PM	Vitals
10:36 PM	Treatment
10:36 PM	Vitals
10:36 PM	Vitals
10:38 PM	Treatment
11:20 PM	Treatment
11:20 PM	Vitals
11:20 PM	Treatment
11:20 PM	Vitals
11:21 PM	Treatment
11:21 PM	Vitals
11:21 PM	Vitals
01:39 AM	Treatment
01:40 AM	Treatment
01:40 AM	Vitals
01:40 AM	Treatment
01:40 AM	Vitals
01:40 AM	Vitals
01:41 AM	Treatment
01:41 AM	Vitals
03:26 AM	Treatment
03:26 AM	Vitals

B6

B6

Client: **B6**
Patient:

Patient History

03:26 AM	Vitals
03:26 AM	Treatment
03:26 AM	Vitals
03:30 AM	Treatment
03:30 AM	Vitals
03:30 AM	Vitals
04:27 AM	Treatment
04:27 AM	Vitals
04:27 AM	Vitals
05:52 AM	Treatment
05:53 AM	Treatment
05:53 AM	Vitals
05:53 AM	Vitals
05:55 AM	Treatment
05:55 AM	Vitals
05:55 AM	Treatment
05:55 AM	Vitals
05:56 AM	Treatment
05:56 AM	Treatment
05:56 AM	Vitals
06:00 AM	Treatment
06:00 AM	Vitals
06:00 AM	Treatment
06:00 AM	Vitals
06:00 AM	Treatment
06:00 AM	Vitals
06:00 AM	Treatment
06:00 AM	Vitals
06:41 AM	Treatment
06:41 AM	Vitals
06:41 AM	Vitals
07:24 AM	Treatment
07:34 AM	Vitals
07:34 AM	Treatment
07:35 AM	Treatment
07:35 AM	Vitals
07:35 AM	Vitals
07:35 AM	Treatment
07:35 AM	Vitals
08:37 AM	Treatment
08:37 AM	Vitals
08:37 AM	Vitals
09:11 AM	Purchase

B6

B6

Client: **B6**
Patient:

Patient History

09:59 AM	Treatment
09:59 AM	Vitals
09:59 AM	Vitals
10:02 AM	Treatment
10:02 AM	Vitals
10:02 AM	Treatment
10:02 AM	Treatment
10:02 AM	Vitals
10:33 AM	UserForm
10:50 AM	Treatment
10:50 AM	Vitals
10:50 AM	Vitals
11:29 AM	Treatment
11:29 AM	Vitals
11:47 AM	Deleted Reason
11:55 AM	Treatment
11:55 AM	Vitals
11:55 AM	Vitals
11:55 AM	Treatment
11:55 AM	Vitals
11:57 AM	Purchase
12:05 PM	Prescription
12:05 PM	Prescription
12:06 PM	Purchase
12:45 PM	Treatment
12:45 PM	Vitals
12:45 PM	Vitals
01:43 PM	Treatment
01:44 PM	Treatment
01:44 PM	Vitals
01:44 PM	Vitals
02:07 PM	Treatment
02:07 PM	Vitals
02:07 PM	Treatment
02:07 PM	Vitals
02:57 PM	Treatment
02:57 PM	Vitals
02:57 PM	Vitals
02:59 PM	Treatment

B6

B6

B6

B6

Male (Neutered)

Canine Bulldog Cross White/Yellow

Patient ID: **B6**

STANDARD CONSENT FORM

I am the owner, or agent for the owner, of the above described animal and have the authority to execute consent. I hereby authorize the Cummings School of Veterinary Medicine at Tufts University (herein after Cummings School) to prescribe for treatment of said animal according to the following terms and conditions.

Cummings School and its officers, agents and employees will provide such veterinary medical care as they deem reasonable and appropriate under the circumstances.

Cummings School and its officers, agents, and employees will use all reasonable care in the treatment of the above mentioned animal, but will not be liable for any loss or accident that may occur or any disease that may develop as a result of the care and treatment provided.

I understand that the above identified animal may be treated by Cummings School students under the supervision and assistance of Cummings School staff members.

In executing this form, I hereby expressly acknowledge that risks, benefits and alternative forms of treatment have been explained to me. I understand said explanation, and I consent to treatment. Should any additional treatments or diagnostics be required during the continued care of my animal, I understand that I will be given the opportunity to discuss and consent to these additional procedures. I understand that further or additional treatment may be required without an opportunity for discussion and consideration by me, in the case of the development of any life-threatening emergency during the continued care of my animal and I expressly consent to all such reasonable treatment as required. I realize and understand that results cannot be guaranteed.

If any equipment is left with the animal, it will be accepted with the understanding that Cummings School assumes no responsibility for any loss of equipment that may occur.

I agree to pick up the animal when notified that it is ready for release.

In the event the animal is not picked up, and if ten (10) days have expired since a registered letter was sent to the address given above, notifying me to call for the animal, the animal may be sold or otherwise disposed of in a humane manner and the proceeds applied to the charges incurred in caring and treating the animal. Failure to remove said animal will not and does not relieve me from obligation for the costs of services rendered.

I hereby grant to the Cummings School of Veterinary Medicine at Tufts University, its officers and employees (collectively referred to herein as Cummings School), and its agents and assigns (the Grantees) the irrevocable rights to photograph / videotape the operation or procedure to be performed, including appropriate and otherwise use such photographs and images for, and in connection with, a Grantee's medical, scientific, educational, and publicity purposes, by any means, methods and media (print and electronic) now known or, in the future, developed that the Grantee deems appropriate (provided that such photographs and images may not be used in for-profit commercials, unless such commercials are publicizing educational programs at Cummings School). As medical and surgical treatment necessitates the removal of tissue, cells, fluids or body parts of my animal, I authorize the Grantees to dispose of or use these tissues, cells, fluids or body parts for scientific and educational purposes.

I understand that a FINANCE CHARGE will be applied to all accounts unpaid after 30 days. The FINANCE CHARGE is computed on a monthly rate of 1.33% per month, which is an annual percentage rate of 16% applied to the average daily balance outstanding, with a minimum fee of \$50.

I do further agree that should any payment, or the full amount of the sum stated above, become overdue more than 20 days from the above-agreed upon time of payment or payments, the entire balance shall be considered in default and become due and payable. I further agree to be responsible for any or all collection agency and/or attorney fees necessary to collect the full amount.

I do further agree to comply with hours of visitation in conjunction with our Hospital's policy.

I have read, understand, and agree to accept the terms and conditions herein.

Owner's name: Date:

Owner's address:

**If the individual admitting the animal is someone other than the legal owner,
please complete the portion below:**

The owner of the animal has granted me authority to obtain medical treatment and to bind this owner to pay the veterinary medical services provided at Cummings School pursuant to the terms and conditions described above

Authorized Agent - Please Print

Agent's Signature

Street Address

Date

Town/City State Zip

B6

Patient ID: B6

B6

Canine

B6

Years Old Male (Neutered) Bulldog

Cross

Body Weight: Weight (kg) 0.00

Brachycephalic Consent Form

Anesthesia, Sedation and Hospitalization

Brachycephalic is a term for "short-nosed". Several dog breeds may experience difficulty breathing due to the shape of their head, muzzle and throat. Shorter nosed dogs include English Bulldogs, French Bulldogs, Pugs, Boston Terriers and many other breeds. The shorter than average nose and face in proportion to their body size can cause problems for these breeds at times. Owners with brachycephalic breeds must pay extra attention to their animals during exercise, heat and while obtaining veterinary care.

Overview

The purpose of this form is to inform you of the risks associated with anesthesia/sedation and occasionally hospitalization, which are inherent for dogs with shorter noses (brachycephalic). Not all of these problems may apply to your dog, but these are part of the brachycephalic syndrome. Please discuss any specific concerns with your attending veterinarian.

Respiratory problems

Brachycephalic dogs have a shortened skull, resulting in a compressed nasal passage and abnormal throat anatomy. The abnormal upper airway anatomy causes increased negative pressure while taking a breath, leading to inflammation, deformation of throat tissues, and obstruction of breathing. We encourage corrective surgery in moderate to severely affected dogs.

Cooling problems

As dogs cool by panting, dogs with narrowed airways may have difficulty cooling themselves. This may be made worse by anxiety or stress.

Stomach and intestinal problems

Brachycephalic dogs may swallow a lot of air which can lead to increased vomiting or regurgitation, and this could lead to pneumonia. If possible, we pre-treat brachycephalic dogs with medications to reduce stomach acids, and to promote stomach emptying.

Restraint challenges

Due to their airway, and in some bulldogs, their intrinsic personality as "tough" dogs, it may be difficult to restrain them safely. This is a particularly significant problem with more aggressive dogs. We

occasionally need to sedate them, or ask family members to help with some routine procedures to avoid unnecessary stress on the patient.

Sedation and anesthesia

While sedation and anesthesia are commonly performed in brachycephalic breeds, especially bulldogs, recovery from anesthesia may be more difficult for these patients due to a narrowed airway. We have our anesthesia team very closely involved in sedation and anesthesia of brachycephalic breeds especially bulldogs. They have found that careful monitoring is essential to a good outcome. In fact, many dog owners travel some distance in order to ensure that a Tufts board-certified anesthesiologist is present during anesthesia or sedation to minimize the risk of complications.

We consider brachycephalic dogs a high risk population. Please be sure you talk with your doctor about the following:

1. Any medical and/or surgical treatment alternatives for your pet
2. Sufficient details of this consent form and how they apply to your dog
3. How fully your pet might respond or recover and how long it could take
4. The most common complications and how serious they might be

I grant permission for my pet to undergo general anesthesia/sedation/hospitalization at Tufts Foster Hospital for Small Animals at the Cummings School of Veterinary Medicine.

I am aware that my pet has physical characteristics that make anesthesia and sedation more challenging and possibly more risky than for the average dog with a longer nose.

I am aware that brachycephalic breeds, such as the English and French bulldog, Boston Terrier, Pug, and Pekingese have a shortened skull, resulting in a compressed nasal passage and abnormal throat anatomy. The abnormal upper airway anatomy causes increased negative pressure while taking a breath, leading to inflammation, deformation of throat tissues, and obstruction of breathing.

I am aware that if my brachycephalic pet undergoes sedation or general anesthesia the potential complications include partial or complete airway obstruction during recovery and regurgitation/vomiting which could lead to aspiration pneumonia/respiratory distress. With airway surgery, death has been reported as a rare complication in <3% of cases.

I am aware that anesthetizing or sedating a brachycephalic animal for any reason can lead to the development of significant complications as described in this document.

Please answer YES or NO to the following questions:

My pet has demonstrated difficulty breathing, exercise intolerance, and/or collapse episodes.

YES NO

My pet has demonstrated difficulty eating, such as gagging, vomiting, and regurgitation.

YES NO

My pet is receiving or has recently received a non-steroidal anti-inflammatory drug (e.g., Rimadyl)

YES NO

Your signature indicates that you have read and understand the above information and give your

consent for treatment

Owner signature

B6

Date:

B6

Treatment Plan

Estimated Charges

B6

B6

This estimate is based upon our preliminary examination. This is an estimate and is not the final bill. Every effort will be made to keep you informed of the current status of your bill throughout your animal's hospitalization. The final fee may vary considerably from this estimated cost.

Patient	Description	Low Qty	Low Extended	High Qty	High Extended
B6	This estimate includes hospitalization, medication, cardiology consult, bloodwork. It does not include surgery, if indicated.	1.00	B6	1.00	B6

B6

Doctor of Record: **B6**

I understand that no guarantee of successful treatment is made. I certify that I have read and fully understand the authorization for medical and/or surgical treatment, the reason for why such medical and/or surgical treatment is considered necessary, as well as its advantages and possible complications, if any. I also assume financial responsibility for all charges incurred to this patient(s). I agree to pay 75% of the estimated cost at the time of admission. Additional deposits will be required if additional care or procedures are required. I further agree to pay the balance of the charges when this patient(s) is released.

Procedural billing is inclusive up to and including the estimated duration of hospitalization. There will be additional expenses if hospitalization extends beyond the specified duration.

I have read, understand, and agree to accept the conditions of this treatment plan.

Thank you for entrusting us with your pet's care.

High Total	B6
Low Total	
75% Deposit	

Cummings Veterinary Medical Center

AT TUFTS UNIVERSITY
Cardiology Liaison: 508-887-4696

B6

Patient ID: **B6**
B6 Canine
B6 Years Old Male (Neutered) Bulldog
Cross
White/Yellow BW: Weight (kg) 32.00

Cardiology Consultation

Date: **B6**

Weight: Weight (kg) 32.00

Requesting Clinician: **B6** DVM (Emergency & Critical Care Resident)

Attending Cardiologist:

John E. Rush DVM, MS, DACVIM (Cardiology), DACVECC

B6

Cardiology Resident:

B6

Thoracic radiographs available for review?

- Yes - in SS
 Yes - in PACS
 No

Patient location:

ICU Run

Presenting complaint and important concurrent diseases:

Acute onset of V x 24 hours, anorexia for 3 days. Does get into trash and things at home. History of hypothyroidism, skin issues. On Rawz diet at home (grain free).

Current medications and doses:

B6

24 hr in hospital

At-home diet: (name, form, amount, frequency)

Rawz limited ingredient wild salmon

Key indication for consultation: (murmur, arrhythmia, needs fluids, etc.)

Afib on telemetry (rate 120-140 bpm) with occasional monomorphic VPCs
Suspect DCM based on TFAST

Questions to be answered: Cause of arrhythmia

Is your consult time-sensitive? (e.g., anesthesia today, owner waiting, trying to get biopsy today)

- Yes (explain):
- No

STOP - remainder of form to be filled out by Cardiology

B6

Muscle condition:

- Normal
- Mild muscle loss
- Moderate cachexia
- Marked cachexia

Cardiovascular Physical Exam

Murmur Grade:

- None
- I/VI
- II/VI
- III/VI
- IV/VI
- V/VI
- VI/VI

Murmur location/description: left systolic apical

Jugular vein:

- Bottom 1/3 of the neck
- Middle 1/3 of the neck
- Top 2/3 of the neck
- 1/2 way up the neck

Arterial pulses:

- Weak
- Fair
- Good
- Strong
- Bounding
- Pulse deficits
- Pulsus paradoxus
- Other (describe):

Arrhythmia: irregularly irregular

- None
- Sinus arrhythmia
- Premature beats
- Bradycardia
- Tachycardia

Gallop:

- Yes
- No
- Intermittent
- Pronounced
- Other:

Pulmonary assessments:

- Eupneic
- Mild dyspnea
- Marked dyspnea
- Normal BV sounds
- Pulmonary Crackles
- Wheezes
- Upper airway stridor
- Other auscultatory findings:

Abdominal exam:

- Normal
- Abdominal distension

Hepatomegaly

Mild ascites

Echocardiogram Findings:

B6

Assessment and recommendations:

DCM with atrial fibrillation and hypotension. The radiographics and physical exam does not suggest that the patient is currently in CHF, but the LA is enlarged enough that I would be worried that he could go into CHF shortly. The patient is also hypotensive. Recommend starting , recheck BP tonight to see BP is improved and if dose needs to be increased. Also recheck T4 level. Ideally we can get a taurine level (Whole blood). Change diet to non-grain free. Monitor RR/RE at home. Because of the hypotension, I hesitate to start at this time. The dog's HR is not that high at this time, so we can wait until BP is improved become considering diltiazem. Recheck ECG and BP 1 week after discharge.

Final Diagnosis:

DCM, atrial fibrillation

Heart Failure Classification Score:

ISACHC Classification:

- | | |
|--|-------------------------------|
| <input type="checkbox"/> Ia | <input type="checkbox"/> IIIa |
| <input checked="" type="checkbox"/> Ib | <input type="checkbox"/> IIIb |
| <input type="checkbox"/> II | |

ACVIM CHF Classification:

- | | |
|--|----------------------------|
| <input type="checkbox"/> A | <input type="checkbox"/> C |
| <input type="checkbox"/> B1 | <input type="checkbox"/> D |
| <input checked="" type="checkbox"/> B2 | |

M-Mode

IVSd
LVIdd
LVPWd
IVSs
LVIdS
LVPWs
%FS
Ao Diam
LA Diam
LA/Ao
Max LA
EPSS

B6

cm
cm
cm
cm
cm
cm
%
cm
cm

cm
cm

M-Mode Normalized

IVSdN
LVIddN
LVPWdN
IVSsN
LVIdSN
LVPWsN
Ao Diam N
LA Diam N

B6

2D

SA LA
Ao Diam
SA LA / Ao Diam
LVId A4C
LVEDV MOD A4C
LVIs A4C
LVESV MOD A4C
LVEF MOD A4C
SV MOD A4C

B6

cm
cm

cm
ml
cm
ml
%
ml

Doppler

MR Vmax
MR maxPG
MV E Vel
PV Vmax
PV maxPG
AV Vmax
AV maxPG

B6

m/s
mmHg
m/s
m/s
mmHg
m/s
mmHg

Cummings

Veterinary Medical Center

AT TUFTS UNIVERSITY

Foster Hospital for Small Animals
55 Willard Street
North Grafton, MA 01536
Telephone (508) 839-5395
Fax (508) 839-7951
<http://vetmed.tufts.edu/>

Emergency & Critical Care Liaison: (508) 887-4745

Patient

Name:

B6

Signalment:

B6 years Old White/Yellow
Male (Neutered) Bulldog Cross

Owner

Name:

Address:

B6

Patient ID:

B6

Emergency Clinician:

B6

DVM (Resident - Cardiology)

Consulting Clinician:

ER Supervisor:

B6

Discharge Instructions

Admit Date: B6 4:55:40 PM

Check Out Date: B6

Case Summary

Thank you for bringing B6 to Tufts, he is such a lovely dog! B6 has been eating random things out of the garbage (dietary indiscretion) but only became anorexic few days ago with some episodes of vomit. Abdominal radiographs performed by your primary veterinarian did not reveal findings consistent with intestinal obstruction or foreign body.

At the presentation, he was alert and responsive but an arrhythmia was noticed and cardiology consult showed that he has a heart disease (dilated cardiomyopathy). This disease is more common in large and giant breed dogs and is characterized by thinning of the walls of the heart, reduced cardiac pump function, and enlargement of the upper chambers of the heart. Many dogs with DCM will also have significant arrhythmias which can be life-threatening and also require medical management. Unfortunately this is a progressive disease and we cannot reverse the changes to the heart muscle, however we can use cardiac medications and some changes to the diet to make your dog comfortable and have him breathing easier.

Also he has been on a diet (grain free) that unfortunately can be associated to cardiac disease and might contribute to worsening of his cardiac function. For this reason, we highly suggest to change his diet and he has been eating and hydrolyzed diet in the hospital (which we would like to keep him on at home) with good appetite. We also can not rule out that the reason for his dietary indiscretion could be related to some nutritional deficiency. We hope he will respond well to the diet change.

Blood work did not reveal any significant abnormality and B6 has been on anti-nausea medication and responded

B6

Diet suggestions:

Dogs with heart failure accumulate more fluid in their body if they eat large amounts of sodium (salt). Sodium can be found in all foods, but some foods are lower in sodium than others. Many pet treats, people foods, and supplements used to give pills often have more sodium than is desirable - a sheet that has suggestions for low sodium treats can be found on the HeartSmart web site (<http://vet.tufts.edu/heartsmart/diet/>).

Exercise Recommendations:

For the first 7 to 10 days after starting medications for heart failure we recommend very limited activity. Leash walking only is ideal, and short walks to start. Once the heart failure is better controlled, then slightly longer walks are acceptable. However, if you find that B6 is lagging behind or needs to stop on a walk then this was too long a walk and shorter walks are advised in the future. Repetitive or strenuous high energy activities (repetitive ball chasing, running fast off-leash, etc.) are generally not advised at this stage of heart failure.

Recheck Visits:

A recheck visit is recommended in 1-2 weeks after any medication adjustments are made. At this visit we will check your dog's breathing effort and heart function, do a blood test to recheck kidney values, and probably recheck a blood pressure. A recheck echocardiogram is recommended in 3-4 months.

Thank you for entrusting us with [B6] care. Please contact our Cardiology liaison at (508)-887-4696 or email us at cardiovet@tufts.edu for scheduling and non-emergent questions or concerns.

Please visit our HeartSmart website for more information
<http://vet.tufts.edu/heartsmart/>

Prescription Refill Disclaimer:

For the safety and well-being of our patients, your pet must have had an examination by one of our veterinarians within the past year in order to obtain prescription medications.

Ordering Food:

Please check with your primary veterinarian to purchase the recommended diet(s). If you wish to purchase your food from us, please call 7-10 days in advance (508-887-4629) to ensure the food is in stock. Alternatively, veterinary diets can be ordered from online retailers with a prescription/veterinary approval.

Clinical Trials:

Clinical trials are studies in which our veterinary doctors work with you and your pet to investigate a specific disease process or a promising new test or treatment. Please see our website: vet.tufts.edu/cvmc/clinical-studies

Case [B6]

Owner [B6]

Discharge Instructions

All Medical Records

Client: [B6]
Address: [B6]

Patient: [B6]
Breed: Pit Bull Cross
DOB: [B6]

Species: Canine
Sex: Female
(Spayed)

Home Phone: [B6]
Work Phone: [B6]
Cell Phone: [B6]

Referring Information

[B6]

Initial Complaint:

Emergency

SOAP Text Nov 29 2018 1:43AM [B6]

Subjective

NEW VISIT (ER)

Doctor: [B6]

Student: ---

Presenting complaint: congestive heart failure management

Referral visit? yes

Diagnostics completed prior to visit

CBC: WNL

Chemistry: WNL

TXR: SEE ER E-MAIL - caridomegaly, pulmonary edema, tracheal elevation

HISTORY:

Signalment: 8yo FS Pit BULL mix

Current history: Went to wellness exam last month and the owner mentioned that the patient had developed a mild cough; was diagnosed with [B6]. This weekend the owner noticed progression of signs with respiratory effort, loud breathing, lethargy and anorexia. Went to rDVM on Monday and was diagnosed with congestive heart failure with the suspicion of DCM. Referred to Tufts for echocardiogram.

Prior medical history: Owner obtained her four years ago and was originally from [B6] historically been a 'loud-breather', recently diagnosed with [B6]

Client: **B6**
Patient: **B6**

Current medications:

Diet: Earthborn Meadow Feast **GRAIN-FREE (4 years at least)**

Vaccination status/flea & tick preventative use: UTD

Travel history:

EXAM:

B6

C/V: Grade 4/6 left periapical holosystolic heart murmur, mild tachycardia

B6

ASSESSMENT:

A1: Suspected DCM with CHF

A2: severe superficial **B6**

PLAN:

B6

Diagnostics completed:

AFAST/TFAST; significantly decreased contractility and diffusely severe chamber enlargement, no B-lines

PCV/TS: **B6**

NOVA:

Diagnostics pending:

Client communication:

Discussed with the owner that our top differential is DCM with CHF; informed the owner that uncontrolled

Client: **B6**
Patient: **B6**

B6 and grain-free diets are linked to this disease. Owner is here for continued management of disease with an echocardiogram

Deposit & estimate status: **B6**

Resuscitation code (if admitting to ICU) **B6**

SOAP approved (DVM to sign): **B6**

SOAP Text Nov 29 2018 8:33AM - Clinician, Unassigned FHSA

Signalment:

8yr FS Pitbull X

History:

B6 has a one-month history of coughing, rDVM recently diagnosed **B6** Over the last 3 days **B6** has developed laboured breathing, lethargy and anorexia. rDVM diagnosed CHF on 11/26. Referred for echocardiogram today via ER Service.

Subjective

B6

Heart: IV/VI left apical holosystolic murmur, tachycardia, femoral pulses fair and synchronous

B6

Assessments

A1: DCM with CHF

A2: Severe superficial **B6**

Client: **B6**
Patient: **B6**

Plan

P1: **B6**
P2: **B6**
P3: **B6**
P4: **B6**
SOA: **B6**
SOA: **B6**

SOAP Text **B6** 6:25AM - Clinician, Unassigned FHSA

Subjective

8 (estimated) yo FS Pitbull X

History:

B6 has a one-month history of coughing, rDVM recently diagnosed **B6**. Over the last 3 days **B6** has developed laboured breathing, lethargy and **B6**. rDVM diagnosed CHF on 11/26. Referred for echocardiogram today via ER Service. **B6** has been on a grain-free diet for at least the past 4 years. Today marks her second day in-hospital.

Subjective

Exam, cardiology

B6

Heart: IV/VI left apical holosystolic murmur, gallop auscultated, sinus tachycardia / svt, femoral pulses fair and synchronous

B6

Client: **B6**
Patient: **B6**

Assessments

A1: DCM with history of cough

B6

Plan

P1:
P2:
P3:
P4:
P5:
P5:
P6:
P7:
P8:

B6

SOAP completed by: **B6**
SOAP reviewed by: **B6**

SOAP Text: **B6** 6:40AM - Clinician, Unassigned FHSA

Subjective

8 yo (estimated) FS Pitbull X

B6 has a one-month history of coughing, rDVM recently diagnosed **B6**. Over the last 3 days **B6** has developed laboured breathing, lethargy and anorexia. rDVM diagnosed CHF on 11/26. Referred for echocardiogram today via ER Service. **B6** has been on a grain-free diet for at least the past 4 years. Today marks her third day in-hospital.

Subjective

Exam: cardiology

B6

Overall impression since arrival or since last exam: **B6** was given a dose of **B6** and transitioned to an oxygen cage overnight due to increased respiratory effort and an SPO2 of **B6**. She continues to exhibit mild respiratory effort this morning, though she is slightly more bright and alert, and intermittently wagging her tail.

Appetite: **B6** is reported to have eaten a few pieces of chicken for her owner during visiting hours yesterday, in addition to another helping of chicken offered last night at approximately 11:30 PM. She is otherwise uninterested in food, but has not vomited since admit. She was uninterested in warmed i/D stew offered this morning at 7:30 AM.

Client: **B6**
Patient:

B6

Heart: IV/VI left apical holosystolic murmur, gallop auscultated, sinus tachycardia / svt, femoral pulses fair and synchronous

B6

Assessments

A1: Diagnosed DCM with history of cough- r/o primary (congenital vs idiopathic) vs secondary (diet-induced vs taurine deficiency vs infectious vs inflammatory vs toxin vs neoplasia)

B6

Plan

P1:
P2:
P3:
P4:
P5:
P6:
P7:
P8:
P9:
P1:
B6

SOAP completed by: **B6**

SOAP reviewed by:

SOAP Text: **B6** 7:56AM - Clinician, Unassigned FHSA

Subjective

8 yo (estimated) FS Pitbull X

B6 has a one-month history of coughing, rDVM recently diagnosed **B6**. Over the last 3 days **B6** has developed laboured breathing, lethargy and anorexia. rDVM diagnosed CHF on 11/26. Referred for echocardiogram via ER Service. **B6** has been on a grain-free diet for at least the past 4 years. Today marks her fourth day in-hospital.

Subjective

Client: **B6**
Patient:

Exam, cardiology

B6

Heart: IV/VI left apical holosystolic murmur, sinus tachycardia / svt, femoral pulses fair and synchronous

B6

Assessments

- A1: Diagnosed DCM with history of cough- r/o primary (congenital vs idiopathic) vs secondary (diet-induced vs taurine deficiency vs infectious vs inflammatory vs toxin vs neoplasia)
- A2: Episode of tachypnea, increased respiratory effort- likely secondary to A1 (resolved with **B6** and oxygen therapy)
- A3: Sustained sinus tachycardia- r/o sec **B6**
- A4: Elevated bilirubin- r/o **B6**
- A5: Severe superficial **B6**
- A6: **B6**

Plan

- P1:
- P2:
- P3:
- P4:
- P5:
- P6:
- P7:
- P8:
- P9:

B6

Client:
Patient:

P10: plan TGH today

SOAP completed by:

SOAP reviewed by:

Disposition/Recommendations

Client:
Patient:

B6

Client: **B6**
 Patient: **B6**



Foster Hospital for Small Animals

55 Willard Street
 North Grafton, MA 01536
 (508) 839-5395

Client: **B6**
 Veterinarian:
 Patient ID: **B6**
 Visit ID:

Patient:	B6
Species:	Canine
Breed:	Pit Bull Cross
Sex:	Female (Spayed)
Age:	B6 Years Old

Lab Results Report

Nova Full Panel-ICU **B6** :08:25 AM **Accession ID: B6**

Test	Results	Reference Range	Units
SO2%	B6	94 - 100	%
HCT (POC)		38 - 48	%
HB (POC)		12.6 - 16	g/dL
NA (POC)		140 - 154	mmol/L
K (POC)		3.6 - 4.8	mmol/L
CL(POC)		109 - 120	mmol/L
CA (ionized)		1.17 - 1.38	mmol/L
MG (POC)		0.1 - 0.4	mmol/L
GLUCOSE (POC)		80 - 120	mg/dL
LACTATE		0 - 2	mmol/L
BUN (POC)		12 - 28	mg/dL
CREAT (POC)		0.2 - 2.1	mg/dL
TCO2 (POC)		0 - 0	mmol/L
nCA		0 - 0	mmol/L
nMG		0 - 0	mmol/L
GAP		0 - 0	mmol/L
CA/MG		0 - 0	mol/mol
BEeef		0 - 0	mmol/L
BEb	0 - 0	mmol/L	
A	0 - 0	mmHg	
NOVA SAMPLE		0 - 0	



10/56

B6

Printed Tuesday, December 04, 2018

Client: **B6**
 Patient: **B6**

FiO2	B6	0 - 0	%
PCO2		36 - 44	mmHg
PO2		80 - 100	mmHg
PH		7.337 - 7.467	
PCO2		36 - 44	mmHg
PO2		80 - 100	mmHg
HCO3		18 - 24	mmol/L

Nova Full Panel-ICU **B6** 2:16:32 AM Accession ID: **B6**

Test	Results	Reference Range	Units
TS (FHSA)	B6	0 - 0	g/dl
PCV **		0 - 0	%
TS (FHSA)		0 - 0	g/dl

Nova Full Panel-ICU **B6** 4:18:25 PM Accession ID: **B6**

Test	Results	Reference Range	Units
SO2%	B6	94 - 100	%
HCT (POC)		38 - 48	%
HB (POC)		12.6 - 16	g/dL
NA (POC)		140 - 154	mmol/L
K (POC)		3.6 - 4.8	mmol/L
CL(POC)		109 - 120	mmol/L
CA (ionized)		1.17 - 1.38	mmol/L
MG (POC)		0.1 - 0.4	mmol/L
GLUCOSE (POC)		80 - 120	mg/dL
LACTATE		0 - 2	mmol/L
BUN (POC)		12 - 28	mg/dL
CREAT (POC)		0.2 - 2.1	mg/dL
TCO2 (POC)		0 - 0	mmol/L
nCA		0 - 0	mmol/L
nMG		0 - 0	mmol/L
GAP		0 - 0	mmol/L
CA/MG		0 - 0	mol/mol
BEecf		0 - 0	mmol/L
BEb		0 - 0	mmol/L
A		0 - 0	mmHg
NOVA SAMPLE		0 - 0	
FiO2		0 - 0	%
PCO2		36 - 44	mmHg
PO2		80 - 100	mmHg
PH		7.337 - 7.467	
PCO2	36 - 44	mmHg	



Client: **B6**
 Patient: **B6**

PO2 **B6** 80 - 100 mmHg
 HCO3 **B6** 18 - 24 mmol/L

Nova Full Panel-ICU **B6** 12:22:41 PM **Accession ID: B6**

Test	Results	Reference Range	Units
TS (FHSA)	B6	0 - 0	g/dl
PCV **	B6	0 - 0	%
TS (FHSA)	B6	0 - 0	g/dl

Nova Full Panel-ICU **B6** 12:50:56 PM **Accession ID: B6**

Test	Results	Reference Range	Units
Troponin I Research - FHSA	B6	0 - 0.08	B6

Nova Full Panel-ICU **B6** 11:37:21 AM **Accession ID: B6**

Test	Results	Reference Range	Units
GLUCOSE	B6	67 - 135	mg/dL
UREA	B6	8 - 30	mg/dL
CREATININE	B6	0.6 - 2	mg/dL
PHOSPHORUS	B6	2.6 - 7.2	mg/dL
CALCIUM2	B6	9.4 - 11.3	mg/dL
T. PROTEIN	B6	5.5 - 7.8	g/dL
ALBUMIN	B6	2.8 - 4	g/dL
GLOBULINS	B6	2.3 - 4.2	g/dL
A/G RATIO	B6	0.7 - 1.6	
SODIUM	B6	140 - 150	mEq/L
CHLORIDE	B6	106 - 116	mEq/L
POTASSIUM	B6	3.7 - 5.4	mEq/L
NA/K	B6	29 - 40	
T BILIRUBIN	B6	0.1 - 0.3	mg/dL
D.BILIRUBIN	B6	0 - 0.1	mg/dL
I BILIRUBIN	B6	0 - 0.2	mg/dL
ALK PHOS	B6	12 - 127	U/L
ALT	B6	14 - 86	U/L
AST	B6	9 - 54	U/L
CHOLESTEROL	B6	82 - 355	mg/dL
OSMOLALITY (CALCULATED)	B6	291 - 315	mmol/L
COMMENTS (CHEMISTRY)	B6	0 - 0	

Nova Full Panel-ICU **B6** 12:54:10 AM **Accession ID: B6**

Test	Results	Reference Range	Units
TS (FHSA)	B6	0 - 0	g/dl
PCV **	B6	0 - 0	%
TS (FHSA)	B6	0 - 0	g/dl

Nova Full Panel-ICU **B6** 12:34:12 PM **Accession ID: B6**



Client: **B6**
 Patient: **B6**

Test	Results	Reference Range	Units
WBC (ADVIA)	B6	4.4 - 15.1	K/uL
RBC(ADVIA)		5.8 - 8.5	M/uL
HGB(ADVIA)		13.3 - 20.5	g/dL
HCT(ADVIA)		39 - 55	%
MCV(ADVIA)		64.5 - 77.5	fL
MCH(ADVIA)		21.3 - 25.9	pg
MCHC(ADVIA)		31.9 - 34.3	g/dL
RDW (ADVIA)		11.9 - 15.2	
PLT(ADVIA)		173 - 486	K/uL
MPV (ADVIA)		8.29 - 13.2	fl
PLTCRT		0.129 - 0.403	%
RETIC(ADVIA)		0.2 - 1.6	%
RETICS (ABS) ADVIA		14.7 - 113.7	K/uL

Nova Full Panel-ICU **B6** 12:34:07 PM Accession ID: **B6**

Test	Results	Reference Range	Units
SEGS%	B6	43 - 86	%
LYMPHS%		7 - 47	%
MONOS%		1 - 15	%
SEGS (AB)ADVIA		2.8 - 11.5	K/ul
LYMPHS (ABS)ADVIA		1 - 4.8	K/uL
MONOS (ABS)ADVIA		0.1 - 1.5	K/uL
WBC MORPHOLOGY		0 - 0	
No Morphologic Abnormalities			
POIKILOCYTOSIS		0 - 0	

Nova Full Panel-ICU **B6** 9:32:21 AM Accession ID: **B6**

Test	Results	Reference Range	Units
GLUCOSE	B6	67 - 135	mg/dL
UREA		8 - 30	mg/dL
CREATININE		0.6 - 2	mg/dL
PHOSPHORUS		2.6 - 7.2	mg/dL
CALCIUM2		9.4 - 11.3	mg/dL
T. PROTEIN		5.5 - 7.8	g/dL
ALBUMIN		2.8 - 4	g/dL
GLOBULINS		2.3 - 4.2	g/dL
A/G RATIO		0.7 - 1.6	
SODIUM		140 - 150	mEq/L
CHLORIDE		106 - 116	mEq/L
POTASSIUM		3.7 - 5.4	mEq/L
NA/K		29 - 40	



Client: **B6**
 Patient: **B6**

T BILIRUBIN	B6	0.1 - 0.3	mg/dL
D.BILIRUBIN		0 - 0.1	mg/dL
I BILIRUBIN		0 - 0.2	mg/dL
ALK PHOS		12 - 127	U/L
ALT		14 - 86	U/L
AST		9 - 54	U/L
CHOLESTEROL		82 - 355	mg/dL
OSMOLALITY (CALCULATED)		291 - 315	mmol/L
COMMENTS (CHEMISTRY)		0 - 0	

Nova Full Panel-ICU **B6** **32:00 AM** **Accession ID: B6**

Test	Results	Reference Range	Units
T4/TOSOH	B6	1 - 4.1	ug/dl

Nova Full Panel-ICU **B6** **9:46:55 AM** **Accession ID: 451297**

Test	Results	Reference Range	Units
TS (FHSA)	B6	0 - 0	g/dl
PCV **		0 - 0	%
TS (FHSA)		0 - 0	g/dl

Nova Full Panel-ICU **B6** **10:17:21 AM** **Accession ID: B6**

Test	Results	Reference Range	Units
GLUCOSE	B6	67 - 135	mg/dL
UREA		8 - 30	mg/dL
CREATININE		0.6 - 2	mg/dL
PHOSPHORUS		2.6 - 7.2	mg/dL
CALCIUM2		9.4 - 11.3	mg/dL
T. PROTEIN		5.5 - 7.8	g/dL
ALBUMIN		2.8 - 4	g/dL
GLOBULINS		2.3 - 4.2	g/dL
A/G RATIO		0.7 - 1.6	
SODIUM		140 - 150	mEq/L
CHLORIDE		106 - 116	mEq/L
POTASSIUM		3.7 - 5.4	mEq/L
NA/K		29 - 40	
T BILIRUBIN		0.1 - 0.3	mg/dL
D.BILIRUBIN		0 - 0.1	mg/dL
I BILIRUBIN		0 - 0.2	mg/dL
ALK PHOS		12 - 127	U/L
ALT		14 - 86	U/L
AST		9 - 54	U/L
CHOLESTEROL		82 - 355	mg/dL
OSMOLALITY (CALCULATED)		291 - 315	mmol/L



Client: **B6**
Patient: **B6**

COMMENTS (CHEMISTRY)

B6

0 - 0



15/56

B6

Printed Tuesday, December 04, 2018

Client:
Patient:

B6

IDEXX BNP 11/29/2018

B6

Client: **B6**
Patient:

NOVA REcheck Panel 11/29/18

B6

Client: **B6**
Patient:

Vitals Results

2:00:27 AM	Blood Pressure (mmHg)
2:17:03 AM	Notes
2:17:27 AM	Catheter Assessment
3:20:43 AM	Interest in water
3:20:59 AM	Quantify IV fluids (mls)
3:21:00 AM	Catheter Assessment
4:10:35 AM	Cardiac rhythm
4:10:36 AM	Heart Rate (/min)
4:11:54 AM	Respiratory Rate
5:28:39 AM	Interest in water
5:42:48 AM	Lasix treatment note
5:50:44 AM	Eliminations
5:50:54 AM	Catheter Assessment
5:51:03 AM	Temperature (F)
5:51:10 AM	Blood Pressure (mmHg)
5:54:58 AM	Amount eaten
5:55:42 AM	Cardiac rhythm
5:55:43 AM	Heart Rate (/min)
5:55:54 AM	Respiratory Rate
6:59:32 AM	Respiratory Rate
7:01:16 AM	Cardiac rhythm
7:01:17 AM	Heart Rate (/min)
7:51:06 AM	Cardiac rhythm
7:51:07 AM	Heart Rate (/min)
7:59:15 AM	Respiratory Rate
7:59:57 AM	Interest in water
8:03:16 AM	Quantify IV fluids (mls)
8:03:17 AM	Catheter Assessment
8:33:19 AM	Weight (kg)
8:33:20 AM	Respiratory Rate
8:33:21 AM	Heart Rate (/min)
8:33:23 AM	Body Condition Score (BCS)
8:33:24 AM	Muscle Condition Score (MCS)
8:33:25 AM	Pain assessment
9:36:46 AM	Cardiac rhythm
9:36:47 AM	Heart Rate (/min)
9:40:19 AM	Blood Pressure (mmHg)
9:40:50 AM	Respiratory Rate
10:44:31 AM	Quantify IV fluids (mls)

B6

B6

Client: **B6**
Patient:

Vitals Results

0:44:32 AM	Catheter Assessment
0:45:05 AM	Respiratory Rate
0:45:14 AM	Interest in water
0:47:43 AM	Catheter Assessment
1:24:23 AM	Cardiac rhythm
1:24:24 AM	Heart Rate (/min)
1:25:08 AM	Respiratory Rate
1:29:55 AM	Interest in water
1:34:18 AM	Amount eaten
1:41:33 AM	Cardiac rhythm
1:41:34 AM	Heart Rate (/min)
2:04:51 PM	Respiratory Rate
2:05:54 PM	Eliminations
:11:19 PM	Cardiac rhythm
:11:20 PM	Heart Rate (/min)
:12:06 PM	Respiratory Rate
:44:07 PM	Cardiac rhythm
:44:08 PM	Heart Rate (/min)
:44:19 PM	Interest in water
:48:41 PM	Blood Pressure (mmHg)
:54:09 PM	Catheter Assessment
:54:18 PM	Temperature (F)
:54:35 PM	Respiratory Rate
:59:10 PM	Quantify IV fluids (mls)
:59:11 PM	Catheter Assessment
2:09:33 PM	Weight (kg)
2:09:42 PM	Eliminations
2:22:06 PM	Cardiac rhythm
2:22:07 PM	Heart Rate (/min)
2:22:18 PM	Interest in water
2:22:50 PM	Respiratory Rate
2:51:58 PM	Eliminations
3:11:39 PM	Cardiac rhythm
3:11:40 PM	Heart Rate (/min)
3:34:27 PM	Respiratory Rate
3:03:05 PM	Respiratory Rate
3:03:16 PM	Cardiac rhythm
3:03:17 PM	Heart Rate (/min)

B6

B6

Client:
Patient:

B6

Vitals Results

5:59:00 PM	Respiratory Rate
5:59:07 PM	Quantify IV fluids (mls)
5:59:08 PM	Catheter Assessment
5:59:33 PM	Interest in water
6:02:16 PM	Blood Pressure (mmHg)
6:02:45 PM	Cardiac rhythm
6:02:46 PM	Heart Rate (/min)
6:02:55 PM	Respiratory Rate
6:25:11 PM	Eliminations
7:11:53 PM	Cardiac rhythm
7:11:54 PM	Heart Rate (/min)
7:12:03 PM	Respiratory Rate
7:46:05 PM	Amount eaten
7:46:22 PM	Interest in water
7:50:02 PM	Blood Pressure (mmHg)
7:50:37 PM	Cardiac rhythm
7:50:38 PM	Heart Rate (/min)
8:11:53 PM	Respiratory Rate
9:38:42 PM	Blood Pressure (mmHg)
9:38:58 PM	Quantify IV fluids (mls)
9:38:59 PM	Catheter Assessment
9:39:38 PM	Interest in water
9:49:08 PM	Weight (kg)
9:49:17 PM	Temperature (F)
9:49:27 PM	Eliminations
10:03:19 PM	Respiratory Rate
10:03:29 PM	Cardiac rhythm
10:03:30 PM	Heart Rate (/min)
11:03:21 PM	Respiratory Rate
11:03:32 PM	Cardiac rhythm
11:03:33 PM	Heart Rate (/min)
11:24:15 PM	Amount eaten
11:24:30 PM	Interest in water
11:55:47 PM	Cardiac rhythm
11:55:48 PM	Heart Rate (/min)
11:58:19 PM	Respiratory Rate
12:56:28 AM	Cardiac rhythm
12:56:29 AM	Heart Rate (/min)
12:57:14 AM	Respiratory Rate
1:16:44 AM	Interest in water

B6

B6

Client: **B6**
Patient:

Vitals Results

1:19:23 AM	Quantify IV fluids (mls)
1:19:24 AM	Catheter Assessment
1:19:57 AM	Blood Pressure (mmHg)
1:57:30 AM	Cardiac rhythm
1:57:31 AM	Heart Rate (/min)
2:01:38 AM	Blood Pressure (mmHg)
2:02:30 AM	Respiratory Rate
3:05:37 AM	Respiratory Rate
3:05:49 AM	Cardiac rhythm
3:05:50 AM	Heart Rate (/min)
3:15:44 AM	Interest in water
4:21:14 AM	Cardiac rhythm
4:21:15 AM	Heart Rate (/min)
4:21:29 AM	Respiratory Rate
4:49:56 AM	Eliminations
5:03:00 AM	Cardiac rhythm
5:03:01 AM	Heart Rate (/min)
5:03:08 AM	Respiratory Rate
5:36:43 AM	Amount eaten
5:39:06 AM	Interest in water
5:52:51 AM	Cardiac rhythm
5:52:52 AM	Heart Rate (/min)
5:53:28 AM	Respiratory Rate
5:53:37 AM	Catheter Assessment
5:53:47 AM	Temperature (F)
5:53:55 AM	Blood Pressure (mmHg)
6:35:29 AM	Respiratory Rate
6:36:43 AM	Cardiac rhythm
6:36:44 AM	Heart Rate (/min)
6:54:02 AM	Weight (kg)
6:54:13 AM	Interest in water
6:54:55 AM	Temperature (F)
6:55:22 AM	Pain assessment
6:55:33 AM	Muscle Condition Score (N
7:48:09 AM	Respiratory Rate
7:48:28 AM	Cardiac rhythm
7:48:29 AM	Heart Rate (/min)
7:51:31 AM	Eliminations
8:50:28 AM	Blood Pressure (mmHg)
9:27:32 AM	Cardiac rhythm
9:27:33 AM	Heart Rate (/min)

B6

B6

Client:
Patient:

B6

Vitals Results

9:28:05 AM	Respiratory Rate
10:32:15 AM	Eliminations
10:52:47 AM	Cardiac rhythm
10:52:48 AM	Heart Rate (/min)
10:52:55 AM	Respiratory Rate
10:53:04 AM	Catheter Assessment
10:53:15 AM	Interest in water
11:19:25 AM	Cardiac rhythm
11:19:26 AM	Heart Rate (/min)
11:19:51 AM	Respiratory Rate
12:35:02 PM	Notes
12:38:46 PM	Cardiac rhythm
12:38:47 PM	Heart Rate (/min)
12:38:56 PM	Respiratory Rate
12:43:33 PM	Amount eaten
1:16:27 PM	Cardiac rhythm
1:16:28 PM	Heart Rate (/min)
1:17:17 PM	Respiratory Rate
1:36:51 PM	Catheter Assessment
1:37:01 PM	Eliminations
2:23:30 PM	Cardiac rhythm
2:23:31 PM	Heart Rate (/min)
2:24:50 PM	Respiratory Rate
2:59:33 PM	Cardiac rhythm
2:59:34 PM	Heart Rate (/min)
3:00:14 PM	Respiratory Rate
3:51:10 PM	Cardiac rhythm
3:51:11 PM	Heart Rate (/min)
5:24:58 PM	Cardiac rhythm
5:24:59 PM	Heart Rate (/min)
5:26:51 PM	Respiratory Rate
5:27:03 PM	Catheter Assessment
5:47:39 PM	Amount eaten
5:48:21 PM	Blood Pressure (mmHg)
5:51:37 PM	Cardiac rhythm
5:51:38 PM	Heart Rate (/min)
5:57:19 PM	Eliminations
5:57:31 PM	Respiratory Rate

B6

B6

Client: **B6**
Patient:

Vitals Results

6:59:18 PM	Cardiac rhythm
6:59:19 PM	Heart Rate (/min)
7:00:20 PM	Respiratory Rate
7:49:56 PM	Eliminations
7:50:09 PM	Cardiac rhythm
7:50:10 PM	Heart Rate (/min)
8:15:18 PM	Respiratory Rate
8:51:41 PM	Cardiac rhythm
8:51:42 PM	Heart Rate (/min)
8:54:47 PM	Respiratory Rate
9:30:50 PM	Catheter Assessment
10:21:18 PM	Cardiac rhythm
10:21:19 PM	Heart Rate (/min)
10:58:04 PM	Cardiac rhythm
10:58:05 PM	Heart Rate (/min)
11:01:28 PM	Respiratory Rate
11:31:21 PM	Blood Pressure (mmHg)
11:37:14 PM	Amount eaten
12:00:32 AM	Cardiac rhythm
12:00:33 AM	Heart Rate (/min)
12:04:00 AM	Respiratory Rate
12:12:43 AM	SpO2 (%)
12:55:10 AM	Cardiac rhythm
12:55:11 AM	Heart Rate (/min)
12:56:14 AM	Respiratory Rate
1:23:11 AM	Catheter Assessment
1:23:19 AM	Eliminations
1:51:37 AM	FiO2 (%)
1:51:47 AM	Cardiac rhythm
1:51:48 AM	Heart Rate (/min)
2:03:35 AM	Respiratory Rate
2:17:31 AM	Lasix treatment note
3:01:55 AM	FiO2 (%)
3:03:12 AM	Cardiac rhythm
3:03:13 AM	Heart Rate (/min)
3:05:04 AM	Respiratory Rate
3:58:55 AM	FiO2 (%)
3:59:04 AM	Cardiac rhythm
3:59:05 AM	Heart Rate (/min)
3:59:38 AM	Respiratory Rate
5:09:36 AM	FiO2 (%)

B6

B6

Client: **B6**
Patient:

Vitals Results

5:09:48 AM	Cardiac rhythm
5:09:49 AM	Heart Rate (/min)
5:09:59 AM	Respiratory Rate
6:02:48 AM	Catheter Assessment
6:02:56 AM	Cardiac rhythm
6:02:57 AM	Heart Rate (/min)
6:03:07 AM	FiO2 (%)
6:03:15 AM	Amount eaten
6:03:27 AM	Respiratory Rate
6:48:49 AM	FiO2 (%)
6:48:58 AM	Cardiac rhythm
6:48:59 AM	Heart Rate (/min)
6:49:08 AM	Respiratory Rate
7:14:13 AM	Respiratory Rate
7:14:36 AM	Weight (kg)
7:14:44 AM	Eliminations
7:16:25 AM	Cardiac rhythm
7:16:26 AM	Heart Rate (/min)
7:26:07 AM	Nursing note
B6 7:40:59 AM	Pain assessment
7:41:44 AM	Body Condition Score (BCS)
7:41:54 AM	Muscle Condition Score (MCS)
7:55:59 AM	FiO2 (%)
8:02:56 AM	Temperature (F)
8:59:22 AM	FiO2 (%)
8:59:51 AM	Cardiac rhythm
8:59:52 AM	Heart Rate (/min)
9:11:33 AM	Respiratory Rate
9:32:45 AM	Catheter Assessment
9:52:27 AM	Cardiac rhythm
9:52:28 AM	Heart Rate (/min)
9:53:28 AM	Respiratory Rate
10:54:25 AM	Cardiac rhythm
10:54:26 AM	Heart Rate (/min)
10:55:54 AM	Respiratory Rate
12:16:02 PM	Cardiac rhythm
12:16:03 PM	Heart Rate (/min)
12:19:54 PM	Respiratory Rate
12:23:23 PM	Amount eaten

B6

Client: **B6**
Patient:

Vitals Results

1:04:25 PM	Cardiac rhythm
1:04:26 PM	Heart Rate (/min)
2:16:12 PM	Cardiac rhythm
2:16:13 PM	Heart Rate (/min)
2:23:34 PM	Catheter Assessment
2:24:10 PM	Respiratory Rate
2:56:32 PM	Respiratory Rate
2:56:52 PM	Cardiac rhythm
2:56:53 PM	Heart Rate (/min)
3:49:18 PM	Blood Pressure (mmHg)
3:53:27 PM	Eliminations
3:53:39 PM	Respiratory Rate
3:53:48 PM	Amount eaten
3:55:51 PM	Cardiac rhythm
3:55:52 PM	Heart Rate (/min)
4:53:38 PM	Respiratory Rate
4:53:58 PM	Cardiac rhythm
4:53:59 PM	Heart Rate (/min)
5:26:09 PM	Amount eaten
5:44:45 PM	Catheter Assessment
6:06:23 PM	Respiratory Rate
6:06:44 PM	Cardiac rhythm
6:06:45 PM	Heart Rate (/min)
7:25:10 PM	Respiratory Rate
7:25:46 PM	Cardiac rhythm
7:25:47 PM	Heart Rate (/min)
7:45:27 PM	Lasix treatment note
7:59:46 PM	Eliminations
8:16:49 PM	Respiratory Rate
8:17:03 PM	Cardiac rhythm
8:17:04 PM	Heart Rate (/min)
8:17:13 PM	Temperature (F)
9:18:58 PM	Cardiac rhythm
9:18:59 PM	Heart Rate (/min)
9:19:09 PM	Respiratory Rate
9:19:19 PM	Catheter Assessment
9:41:26 PM	Cardiac rhythm
9:41:27 PM	Heart Rate (/min)
9:46:33 PM	Respiratory Rate
10:01:52 PM	Eliminations
11:04:21 PM	Respiratory Rate

B6

B6

Client:
Patient:

B6

Vitals Results

11:05:01 PM	Cardiac rhythm
11:05:02 PM	Heart Rate (/min)
11:29:21 PM	Eliminations
11:29:39 PM	Amount eaten
11:54:48 PM	Respiratory Rate
12:07:04 AM	Cardiac rhythm
12:07:05 AM	Heart Rate (/min)
1:06:52 AM	Cardiac rhythm
1:06:53 AM	Heart Rate (/min)
1:07:05 AM	Respiratory Rate
1:42:37 AM	Catheter Assessment
1:48:02 AM	Cardiac rhythm
1:48:03 AM	Heart Rate (/min)
1:49:24 AM	Respiratory Rate
3:11:26 AM	Cardiac rhythm
3:11:27 AM	Heart Rate (/min)
3:11:53 AM	Respiratory Rate
3:58:00 AM	Cardiac rhythm
3:58:01 AM	Heart Rate (/min)
4:01:39 AM	Respiratory Rate
4:59:26 AM	Cardiac rhythm
4:59:27 AM	Heart Rate (/min)
5:00:05 AM	Respiratory Rate
5:42:08 AM	Amount eaten
5:42:20 AM	Catheter Assessment
5:42:30 AM	Respiratory Rate
5:48:25 AM	Weight (kg)
5:48:31 AM	Eliminations
5:48:41 AM	Cardiac rhythm
5:48:42 AM	Heart Rate (/min)
6:53:48 AM	Cardiac rhythm
6:53:49 AM	Heart Rate (/min)
6:54:03 AM	Respiratory Rate
7:20:01 AM	Cardiac rhythm
7:20:02 AM	Heart Rate (/min)
7:27:57 AM	Temperature (F)
7:28:07 AM	Eliminations
7:28:16 AM	Respiratory Rate
9:24:25 AM	Respiratory Rate
9:24:54 AM	Cardiac rhythm

B6

B6

Client: **B6**
Patient:

Vitals Results

B6	0:24:55 AM	Heart Rate (/min)
	0:01:48 AM	Cardiac rhythm
	0:01:49 AM	Heart Rate (/min)
	0:18:02 AM	Respiratory Rate
	0:18:13 AM	Lasix treatment note
	1:24:21 AM	Amount eaten
	1:26:17 AM	Respiratory Rate
	1:26:34 AM	Cardiac rhythm
	1:26:35 AM	Heart Rate (/min)
	2:23:38 PM	Respiratory Rate
	2:23:51 PM	Cardiac rhythm
	2:23:52 PM	Heart Rate (/min)
	15:39 PM	Notes

B6

Client: **B6**
Patient:

ECG from Cardio

B6

B6

Client: **B6**
Patient:

ECG from Cardio

B6

B6

Client: **B6**
Patient:

ECG from Cardio

B6

B6

Client: **B6**
Patient:

Patient History

	12:25 AM	UserForm	
	12:25 AM	Email	
	02:00 AM	Vitals	
	02:08 AM	Purchase	
	02:16 AM	Labwork	
	02:17 AM	Vitals	
	02:17 AM	Vitals	
	02:20 AM	UserForm	
	02:20 AM	Purchase	
	02:24 AM	Purchase	
	02:35 AM	Prescription	
	02:36 AM	Prescription	
	03:16 AM	Treatment	
	03:20 AM	Treatment	
	03:20 AM	Vitals	
	03:20 AM	Treatment	
	03:20 AM	Vitals	
	03:20 AM	Vitals	
	04:10 AM	Treatment	
B6	04:10 AM	Vitals	B6
	04:10 AM	Vitals	
	04:11 AM	Treatment	
	04:11 AM	Vitals	
	04:19 AM	Purchase	
	04:19 AM	Purchase	
	04:20 AM	Purchase	
	05:28 AM	Treatment	
	05:28 AM	Vitals	
	05:42 AM	Vitals	
	05:43 AM	Treatment	
	05:43 AM	Purchase	
	05:50 AM	Treatment	
	05:50 AM	Vitals	
	05:50 AM	Treatment	
	05:50 AM	Vitals	
	05:51 AM	Treatment	
	05:51 AM	Vitals	
	05:51 AM	Vitals	
	05:51 AM	Treatment	
	05:54 AM	Treatment	
	05:54 AM	Treatment	
	05:54 AM	Treatment	
	05:54 AM	Vitals	

Client: **B6**
Patient:

Patient History

05:55 AM	Treatment
05:55 AM	Vitals
05:55 AM	Vitals
05:55 AM	Treatment
05:55 AM	Vitals
06:59 AM	Treatment
06:59 AM	Vitals
07:01 AM	Treatment
07:01 AM	Vitals
07:01 AM	Vitals
07:51 AM	Treatment
07:51 AM	Vitals
07:51 AM	Vitals
07:59 AM	Treatment
07:59 AM	Vitals
07:59 AM	Treatment
07:59 AM	Vitals
07:59 AM	Vitals
08:03 AM	Treatment
08:03 AM	Vitals
08:03 AM	Vitals
08:33 AM	Vitals
08:33 AM	Vitals
08:33 AM	Vitals
08:33 AM	Vitals
08:33 AM	Vitals
08:33 AM	Vitals
08:33 AM	Vitals
08:51 AM	Deleted Reason
08:52 AM	Purchase
08:54 AM	Deleted Reason
08:58 AM	Treatment
09:36 AM	Treatment
09:36 AM	Vitals
09:36 AM	Vitals
09:40 AM	Treatment
09:40 AM	Vitals
09:40 AM	Treatment
09:40 AM	Vitals
10:44 AM	Treatment

B6

B6

Client: **B6**
Patient:

Patient History

	10:44 AM	Vitals	
	10:44 AM	Vitals	
	10:44 AM	Vitals	
	10:44 AM	Vitals	
	10:45 AM	Treatment	
	10:45 AM	Vitals	
	10:45 AM	Treatment	
	10:45 AM	Vitals	
	10:47 AM	Treatment	
	10:47 AM	Vitals	
	11:24 AM	Treatment	
	11:24 AM	Vitals	
	11:24 AM	Vitals	
	11:25 AM	Treatment	
	11:25 AM	Vitals	
	11:29 AM	Treatment	
	11:29 AM	Vitals	
	11:34 AM	Treatment	
	11:34 AM	Vitals	
	11:41 AM	Treatment	
B6	11:41 AM	Vitals	B6
	11:41 AM	Vitals	
	11:43 AM	Treatment	
	12:04 PM	Treatment	
	12:04 PM	Vitals	
	12:05 PM	Treatment	
	12:05 PM	Vitals	
	12:11 PM	Purchase	
	01:11 PM	Treatment	
	01:11 PM	Vitals	
	01:11 PM	Vitals	
	01:12 PM	Treatment	
	01:12 PM	Vitals	
	01:44 PM	Treatment	
	01:44 PM	Vitals	
	01:44 PM	Vitals	
	01:44 PM	Treatment	
	01:44 PM	Vitals	
	01:48 PM	Treatment	
	01:48 PM	Vitals	
	01:54 PM	Treatment	
	01:54 PM	Vitals	

Client: **B6**
Patient:

Patient History

01:54 PM	Treatment
01:54 PM	Vitals
01:54 PM	Treatment
01:54 PM	Vitals
01:59 PM	Treatment
01:59 PM	Vitals
01:59 PM	Vitals
02:09 PM	Treatment
02:09 PM	Vitals
02:09 PM	Treatment
02:09 PM	Vitals
03:22 PM	Treatment
03:22 PM	Vitals
03:22 PM	Vitals
03:22 PM	Treatment
03:22 PM	Vitals
03:22 PM	Treatment
03:22 PM	Vitals
03:51 PM	Vitals
03:58 PM	UserForm
03:58 PM	Treatment
04:09 PM	Purchase
04:11 PM	Treatment
04:11 PM	Vitals
04:11 PM	Vitals
04:18 PM	Purchase
04:20 PM	Purchase
04:20 PM	Purchase
04:21 PM	Purchase
04:22 PM	Labwork
04:34 PM	Treatment
04:34 PM	Vitals
05:01 PM	Labwork
05:03 PM	Treatment
05:03 PM	Vitals
05:03 PM	Treatment
05:03 PM	Vitals
05:03 PM	Vitals
05:59 PM	Treatment
05:59 PM	Vitals
05:59 PM	Treatment
05:59 PM	Vitals

B6

B6

Patient History

05:59 PM	Vitals
05:59 PM	Treatment
05:59 PM	Vitals
06:02 PM	Vitals
06:02 PM	Treatment
06:02 PM	Treatment
06:02 PM	Vitals
06:02 PM	Vitals
06:02 PM	Treatment
06:02 PM	Vitals
06:25 PM	Treatment
06:25 PM	Vitals
07:11 PM	Treatment
07:11 PM	Vitals
07:11 PM	Vitals
07:12 PM	Treatment
07:12 PM	Vitals
07:46 PM	Treatment
07:46 PM	Vitals
07:46 PM	Vitals
07:46 PM	Treatment
07:46 PM	Vitals
07:50 PM	Treatment
07:50 PM	Vitals
07:50 PM	Treatment
07:50 PM	Vitals
07:50 PM	Vitals
07:51 PM	Prescription
07:56 PM	Prescription
08:11 PM	Treatment
08:11 PM	Vitals
08:12 PM	Treatment
08:12 PM	Treatment
08:12 PM	Treatment
08:12 PM	Treatment
09:38 PM	Vitals
09:38 PM	Treatment
09:38 PM	Treatment
09:38 PM	Vitals
09:38 PM	Vitals

B6

B6

Client: **B6**
Patient:

Patient History

09:39 PM	Treatment
09:39 PM	Vitals
09:49 PM	Treatment
09:49 PM	Vitals
09:49 PM	Treatment
09:49 PM	Vitals
09:49 PM	Treatment
09:49 PM	Vitals
10:03 PM	Treatment
10:03 PM	Vitals
10:03 PM	Treatment
10:03 PM	Vitals
10:03 PM	Vitals
11:03 PM	Treatment
11:03 PM	Vitals
11:03 PM	Treatment
11:03 PM	Vitals
11:03 PM	Vitals
11:24 PM	Treatment
11:24 PM	Vitals
11:24 PM	Treatment
11:24 PM	Vitals
11:55 PM	Treatment
11:55 PM	Vitals
11:55 PM	Vitals
11:58 PM	Treatment
11:58 PM	Vitals
12:56 AM	Treatment
12:56 AM	Vitals
12:56 AM	Vitals
12:57 AM	Treatment
12:57 AM	Vitals
01:16 AM	Treatment
01:16 AM	Vitals
01:19 AM	Treatment
01:19 AM	Vitals
01:19 AM	Vitals
01:19 AM	Vitals
01:21 AM	Treatment
01:57 AM	Treatment
01:57 AM	Vitals

B6

B6

Client: **B6**
Patient: **B6**

Patient History

01:57 AM	Vitals
02:01 AM	Treatment
02:01 AM	Vitals
02:02 AM	Treatment
02:02 AM	Vitals
03:05 AM	Treatment
03:05 AM	Vitals
03:05 AM	Treatment
03:05 AM	Vitals
03:05 AM	Vitals
03:15 AM	Treatment
03:15 AM	Vitals
04:07 AM	Purchase
04:07 AM	Purchase
04:21 AM	Treatment
04:21 AM	Treatment
04:21 AM	Vitals
04:21 AM	Vitals
04:21 AM	Treatment
04:21 AM	Vitals
04:49 AM	Treatment
04:49 AM	Vitals
05:02 AM	Treatment
05:03 AM	Vitals
05:03 AM	Vitals
05:03 AM	Treatment
05:03 AM	Vitals
05:36 AM	Treatment
05:36 AM	Vitals
05:39 AM	Treatment
05:39 AM	Vitals
05:52 AM	Treatment
05:52 AM	Vitals
05:52 AM	Vitals
05:53 AM	Treatment
05:53 AM	Vitals
05:53 AM	Treatment
05:53 AM	Vitals
05:53 AM	Treatment
05:53 AM	Vitals
05:53 AM	Vitals
05:53 AM	Vitals
05:54 AM	Treatment
06:35 AM	Treatment
06:35 AM	Vitals

B6

B6

Client: **B6**
Patient:

Patient History

06:36 AM	Treatment
06:36 AM	Vitals
06:36 AM	Vitals
06:54 AM	Treatment
06:54 AM	Vitals
06:54 AM	Treatment
06:54 AM	Vitals
06:54 AM	Vitals
06:55 AM	Vitals
06:55 AM	Vitals
07:48 AM	Treatment
07:48 AM	Vitals
07:48 AM	Treatment
07:48 AM	Vitals
07:48 AM	Vitals
07:48 AM	Treatment
07:50 AM	Vitals
07:51 AM	Vitals
07:51 AM	Vitals
08:08 AM	Purchase
08:10 AM	Purchase
08:13 AM	Deleted Reason
08:50 AM	Treatment
08:50 AM	Vitals
09:27 AM	Treatment
09:27 AM	Vitals
09:27 AM	Vitals
09:28 AM	Treatment
09:28 AM	Vitals
10:32 AM	Treatment
10:32 AM	Vitals
10:52 AM	Treatment
10:52 AM	Vitals
10:52 AM	Vitals
10:52 AM	Treatment
10:52 AM	Vitals
10:53 AM	Treatment
10:53 AM	Vitals
10:53 AM	Treatment
10:53 AM	Vitals
11:08 AM	Prescription
11:19 AM	Treatment

B6

B6

Client: **B6**
Patient:

Patient History

	11:19 AM	Vitals	
	11:19 AM	Vitals	
	11:19 AM	Treatment	
	11:19 AM	Vitals	
	11:37 AM	Purchase	
	11:57 AM	Labwork	
	12:34 PM	Purchase	
	12:35 PM	Vitals	
	12:35 PM	Purchase	
	12:38 PM	Treatment	
	12:38 PM	Treatment	
	12:38 PM	Vitals	
	12:38 PM	Vitals	
	12:38 PM	Treatment	
	12:38 PM	Vitals	
	12:43 PM	Treatment	
	12:43 PM	Treatment	
	12:43 PM	Vitals	
B6	12:45 PM	Purchase	B6
	12:58 PM	Prescription	
	01:16 PM	Treatment	
	01:16 PM	Vitals	
	01:16 PM	Vitals	
	01:17 PM	Treatment	
	01:17 PM	Vitals	
	01:36 PM	Treatment	
	01:36 PM	Vitals	
	01:36 PM	Treatment	
	01:37 PM	Treatment	
	01:37 PM	Vitals	
	02:23 PM	Treatment	
	02:23 PM	Treatment	
	02:23 PM	Vitals	
	02:23 PM	Vitals	
	02:24 PM	Treatment	
	02:24 PM	Vitals	
	02:59 PM	Treatment	
	02:59 PM	Vitals	
	02:59 PM	Vitals	
	03:00 PM	Treatment	

Client: **B6**
Patient:

Patient History

03:00 PM	Vitals
03:51 PM	Treatment
03:51 PM	Vitals
03:51 PM	Vitals
04:09 PM	Purchase
05:24 PM	Treatment
05:24 PM	Vitals
05:24 PM	Vitals
05:26 PM	Treatment
05:26 PM	Vitals
05:27 PM	Treatment
05:27 PM	Treatment
05:27 PM	Vitals
05:47 PM	Treatment
05:47 PM	Vitals
05:48 PM	Vitals
05:48 PM	Treatment
05:51 PM	Treatment
05:51 PM	Vitals
05:51 PM	Vitals
05:57 PM	Treatment
05:57 PM	Vitals
05:57 PM	Treatment
05:57 PM	Vitals
06:06 PM	Treatment
06:06 PM	Treatment
06:59 PM	Treatment
06:59 PM	Vitals
06:59 PM	Vitals
07:00 PM	Vitals
07:37 PM	Treatment
07:49 PM	Treatment
07:49 PM	Vitals
07:50 PM	Treatment
07:50 PM	Vitals
07:50 PM	Vitals
08:15 PM	Vitals
08:23 PM	Treatment
08:46 PM	Prescription
08:51 PM	Treatment
08:51 PM	Treatment

B6

B6

Client: **B6**
Patient:

Patient History

08:51 PM	Vitals
08:51 PM	Vitals
08:54 PM	Treatment
08:54 PM	Vitals
09:25 PM	Treatment
09:30 PM	Treatment
09:30 PM	Treatment
09:30 PM	Treatment
09:30 PM	Vitals
10:21 PM	Treatment
10:21 PM	Vitals
10:21 PM	Vitals
10:58 PM	Treatment
10:58 PM	Vitals
10:58 PM	Vitals
11:01 PM	Treatment
11:01 PM	Vitals
11:31 PM	Vitals
11:31 PM	Treatment
11:37 PM	Treatment
11:37 PM	Vitals
11:37 PM	Vitals
12:00 AM	Treatment
12:00 AM	Vitals
12:00 AM	Vitals
12:04 AM	Treatment
12:04 AM	Vitals
12:12 AM	Vitals
12:13 AM	Treatment
12:55 AM	Treatment
12:55 AM	Vitals
12:55 AM	Vitals
12:56 AM	Treatment
12:56 AM	Vitals
01:21 AM	Treatment
01:23 AM	Treatment
01:23 AM	Vitals
01:23 AM	Treatment
01:23 AM	Vitals
01:51 AM	Treatment
01:51 AM	Vitals
01:51 AM	Treatment

B6

B6

Client:
Patient:

B6

Patient History

01:51 AM	Vitals
01:51 AM	Vitals
02:03 AM	Treatment
02:03 AM	Vitals
02:17 AM	Vitals
02:18 AM	Treatment
03:01 AM	Treatment
03:01 AM	Vitals
03:03 AM	Treatment
03:03 AM	Vitals
03:03 AM	Vitals
03:05 AM	Treatment
03:05 AM	Vitals
03:58 AM	Treatment
03:58 AM	Vitals
03:59 AM	Treatment
03:59 AM	Vitals
03:59 AM	Vitals
03:59 AM	Treatment
03:59 AM	Vitals
04:01 AM	Treatment
04:07 AM	Purchase
04:07 AM	Purchase
05:09 AM	Treatment
05:09 AM	Vitals
05:09 AM	Treatment
05:09 AM	Vitals
05:09 AM	Vitals
05:09 AM	Treatment
05:09 AM	Vitals
06:02 AM	Treatment
06:02 AM	Treatment
06:02 AM	Vitals
06:02 AM	Treatment
06:02 AM	Vitals
06:02 AM	Vitals
06:03 AM	Treatment
06:03 AM	Vitals
06:03 AM	Treatment
06:03 AM	Vitals

B6

B6

Client: **B6**
Patient:

Patient History

06:03 AM	Treatment
06:03 AM	Vitals
06:06 AM	Treatment
06:08 AM	Treatment
06:48 AM	Treatment
06:48 AM	Vitals
06:48 AM	Treatment
06:48 AM	Vitals
06:48 AM	Vitals
06:49 AM	Treatment
06:49 AM	Vitals
07:14 AM	Treatment
07:14 AM	Vitals
07:14 AM	Treatment
07:14 AM	Vitals
07:14 AM	Treatment
07:14 AM	Vitals
07:16 AM	Treatment
07:16 AM	Vitals
07:16 AM	Vitals
07:16 AM	Vitals
07:26 AM	Vitals
07:40 AM	Vitals
07:41 AM	Vitals
07:41 AM	Vitals
07:41 AM	Vitals
07:55 AM	Treatment
07:55 AM	Vitals
08:02 AM	Treatment
08:02 AM	Vitals
08:46 AM	Purchase
08:48 AM	Purchase
08:59 AM	Treatment
08:59 AM	Vitals
08:59 AM	Treatment
08:59 AM	Vitals
08:59 AM	Vitals
09:11 AM	Treatment
09:11 AM	Vitals
09:12 AM	Treatment
09:31 AM	Purchase

B6

B6

Client: **B6**
Patient:

Patient History

09:32 AM	Purchase
09:32 AM	Treatment
09:32 AM	Treatment
09:32 AM	Vitals
09:40 AM	Prescription
09:40 AM	Prescription
09:41 AM	Prescription
09:41 AM	Prescription
09:42 AM	Prescription
09:43 AM	Treatment
09:47 AM	Labwork
09:52 AM	Treatment
09:52 AM	Vitals
09:52 AM	Vitals
09:53 AM	Treatment
09:53 AM	Vitals
10:06 AM	Treatment
10:53 AM	UserForm
10:54 AM	Treatment
10:54 AM	Vitals
10:54 AM	Vitals
10:55 AM	Treatment
10:55 AM	Vitals
12:16 PM	Treatment
12:16 PM	Vitals
12:16 PM	Vitals
12:18 PM	Treatment
12:18 PM	Treatment
12:19 PM	Treatment
12:19 PM	Vitals
12:23 PM	Treatment
12:23 PM	Vitals
12:45 PM	Purchase
12:45 PM	Treatment
01:04 PM	Treatment
01:04 PM	Vitals
01:04 PM	Vitals
01:24 PM	Treatment

B6

B6

Client: **B6**
Patient:

Patient History

02:16 PM	Treatment
02:16 PM	Vitals
02:16 PM	Vitals
02:23 PM	Treatment
02:23 PM	Treatment
02:23 PM	Vitals
02:23 PM	Treatment
02:24 PM	Treatment
02:24 PM	Vitals
02:56 PM	Treatment
02:56 PM	Vitals
02:56 PM	Treatment
02:56 PM	Vitals
02:56 PM	Vitals
03:49 PM	Vitals
03:53 PM	Treatment
03:53 PM	Vitals
03:53 PM	Treatment
03:53 PM	Vitals
03:53 PM	Vitals
03:55 PM	Treatment
03:55 PM	Vitals
03:55 PM	Vitals
04:09 PM	Purchase
04:50 PM	UserForm
04:53 PM	Treatment
04:53 PM	Vitals
04:53 PM	Treatment
04:53 PM	Vitals
04:53 PM	Vitals
05:17 PM	Treatment
05:26 PM	Treatment
05:26 PM	Treatment
05:26 PM	Vitals
05:44 PM	Treatment
05:44 PM	Vitals
05:44 PM	Treatment
06:06 PM	Treatment
06:06 PM	Vitals
06:06 PM	Treatment
06:06 PM	Vitals

B6

B6

Client: **B6**
Patient:

Patient History

06:06 PM	Vitals
07:25 PM	Vitals
07:25 PM	Vitals
07:25 PM	Vitals
07:37 PM	Treatment
07:37 PM	Treatment
07:45 PM	Vitals
07:59 PM	Treatment
07:59 PM	Vitals
08:16 PM	Treatment
08:16 PM	Vitals
08:17 PM	Treatment
08:17 PM	Vitals
08:17 PM	Vitals
08:17 PM	Treatment
08:17 PM	Vitals
08:22 PM	Treatment
09:09 PM	Treatment
09:18 PM	Treatment
09:18 PM	Vitals
09:18 PM	Vitals
09:19 PM	Treatment
09:19 PM	Vitals
09:19 PM	Treatment
09:19 PM	Vitals
09:30 PM	Treatment
09:41 PM	Treatment
09:41 PM	Vitals
09:41 PM	Vitals
09:46 PM	Treatment
09:46 PM	Treatment
09:46 PM	Vitals
10:01 PM	Vitals
11:04 PM	Treatment
11:04 PM	Vitals
11:05 PM	Treatment
11:05 PM	Vitals
11:05 PM	Vitals
11:29 PM	Treatment
11:29 PM	Vitals
11:29 PM	Treatment

B6

B6

Client: **B6**
Patient:

Patient History

B6	11:29 PM	Vitals	B6
	11:54 PM	Treatment	
	11:54 PM	Vitals	
	12:07 AM	Treatment	
	12:07 AM	Vitals	
	12:07 AM	Vitals	
	01:06 AM	Treatment	
	01:06 AM	Vitals	
	01:06 AM	Vitals	
	01:07 AM	Treatment	
	01:07 AM	Vitals	
	01:41 AM	Treatment	
	01:42 AM	Treatment	
	01:42 AM	Vitals	
	01:48 AM	Treatment	
	01:48 AM	Vitals	
	01:48 AM	Vitals	
	01:49 AM	Treatment	
	01:49 AM	Vitals	
	03:11 AM	Treatment	
	03:11 AM	Vitals	
	03:11 AM	Vitals	
	03:11 AM	Treatment	
	03:11 AM	Vitals	
	03:58 AM	Treatment	
	03:58 AM	Vitals	
	03:58 AM	Vitals	
	04:01 AM	Treatment	
	04:01 AM	Treatment	
	04:01 AM	Vitals	
	04:07 AM	Purchase	
	04:07 AM	Purchase	
	04:59 AM	Treatment	
	04:59 AM	Vitals	
	04:59 AM	Vitals	
	05:00 AM	Treatment	
	05:00 AM	Vitals	
	05:41 AM	Treatment	
	05:42 AM	Treatment	
	05:42 AM	Vitals	
05:42 AM	Treatment		

Client: **B6**
Patient:

Patient History

05:42 AM	Vitals
05:42 AM	Treatment
05:42 AM	Vitals
05:48 AM	Treatment
05:48 AM	Treatment
05:48 AM	Vitals
05:48 AM	Treatment
05:48 AM	Vitals
05:48 AM	Treatment
05:48 AM	Vitals
05:48 AM	Vitals
05:53 AM	Treatment
06:53 AM	Treatment
06:53 AM	Vitals
06:53 AM	Vitals
06:54 AM	Treatment
06:54 AM	Vitals
07:20 AM	Treatment
07:20 AM	Vitals
07:20 AM	Vitals
07:27 AM	Treatment
07:27 AM	Vitals
07:28 AM	Treatment
07:28 AM	Vitals
07:28 AM	Treatment
07:28 AM	Vitals
09:23 AM	Treatment
09:24 AM	Treatment
09:24 AM	Vitals
09:24 AM	Treatment
09:24 AM	Vitals
09:24 AM	Vitals
10:01 AM	Treatment
10:01 AM	Vitals
10:01 AM	Vitals
10:17 AM	Purchase
10:17 AM	Treatment
10:18 AM	Treatment
10:18 AM	Vitals
10:18 AM	Vitals
10:18 AM	Treatment
10:23 AM	Treatment

B6

B6

Client: **B6**
Patient:

Patient History

B6	10:23 AM	Treatment	B6
	11:24 AM	Treatment	
	11:24 AM	Vitals	
	11:26 AM	Treatment	
	11:26 AM	Vitals	
	11:26 AM	Treatment	
	11:26 AM	Vitals	
	11:26 AM	Vitals	
	11:42 AM	Purchase	
	12:14 PM	Prescription	
	12:14 PM	Prescription	
	12:15 PM	Prescription	
	12:16 PM	Prescription	
	12:16 PM	Prescription	
	12:17 PM	Prescription	
	12:17 PM	Prescription	
	12:23 PM	Treatment	
	12:23 PM	Vitals	
	12:23 PM	Treatment	
	12:23 PM	Vitals	
	12:23 PM	Vitals	
	12:43 PM	Purchase	
	01:15 PM	Vitals	
	01:18 PM	Treatment	
	01:22 PM	Appointment	
	01:32 PM	Deleted Reason	

Cummings Veterinary Medical Center

AT TUFTS UNIVERSITY

Foster Hospital for Small Animals
35 Willard Street
North Grafton, MA 01524
Telephone: (508) 833-5335
Fax: (508) 833-7952
<http://vetmed.tufts.edu/>
Referring Vet Direct Line: 508-887-4988

Notice of Patient Admit

Date: B6 12:24:01 AM

Case No: B6

Referring Doctor: B6

Client Name:

B6

Patient Name:

Dear: B6

Your patient B6

communication with our team.

The attending doctor is: B6

The reason for admission to the FHSA is: DCH

If you have any questions regarding this particular case, please call 508-887-4988 to reach the Cardiology Service. Information is updated daily, by noon.

Thank you for your referral to our Emergency Service.

Cummings Veterinary Medical Center AT TUFTS UNIVERSITY

Foster Hospital for Small Animals
55 Willard Street
North Grafton, MA 01536
Telephone: (508) 839-5395
Fax: (508) 839-7951
<http://vetmed.tufts.edu/fost/>

B6

B6
B6 Female (Spayed)
Cause: PS Bull Cross, Brindle
B6

Daily Update From the Cardiology Service

1

Today's date: **B6**

Dear **B6**

Thank you for referring patients to the Foster Hospital for Small Animals at the Cummings School of Tufts University.

Your patient **B6** was admitted and is being cared for by the Cardiology Service.

Today **B6**

- is in stable, but critical condition
- is still in the oxygen cage
- is critically ill
- might be discharged from the hospital today

Today's treatments include:

- bloodwork planned/pending
- echocardiography
- cardiac catheter procedure planned
- ongoing treatment for CHF secondary to DCM
- ongoing treatment for thrombosis
- ongoing treatment for arrhythmia

Additional plans:

Please allow 3-5 business days for reports to be finalized upon patient discharge.

Please call (508) 887-4696 before 5pm or email us at cardiovas@tufts.edu if you have any questions.
Thank you!

Attending Clinician: **B6**

Faculty Clinician: John Rush DVM, DACVIM, DACVECC

Senior student:

From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
To: Jones, Jennifer L
Sent: 12/27/2018 3:33:42 PM
Subject: [REDACTED] update

Hi Jen
[REDACTED] (written as [REDACTED] on our records) was euthanized on [REDACTED] for worsening CHF, anorexia, and poor quality of life.

I have food bag and samples if you'd like

Owner gave us permission to report but may want to wait to contact since she recently lost [REDACTED]

Thanks

Lisa

Lisa M. Freeman, DVM, PhD, DACVN
Board Certified Veterinary Nutritionist™
Professor
Cummings School of Veterinary Medicine
Friedman School of Nutrition Science and Policy
Tufts Clinical and Translational Science Institute
Tufts University
www.petfoodology.org

From: Guag, Jake </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e13ad3c7a7c5484c80e1d9cf9d1a15de-JGuag>
To: 'Lisa.Freeman@tufts.edu'
CC: Jones, Jennifer L
Sent: 8/22/2018 3:14:21 PM
Subject: Heads up: FDA (Vet-LIRN) shipped a sample collection box to you

Dear Dr. Freeman,

We shipped a sample collection box to your place this morning. The box is expected to arrive tomorrow (Aug 23rd), and their tracking numbers are 1ZA4420T0197393207 with UPS.

Thank you
Jake Guag

Jake Guag, MPH, CPH
Biologist (FDA/CVM/OR/Vet-LIRN)
8401 Muirkirk Road
Laurel, Maryland 20708
Email: jake.guag@fda.hhs.gov
Tel: 240-402-0917

From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
To: Guag, Jake
Sent: 8/26/2018 7:17:22 PM
Subject: RE: Heads up: FDA (Vet-LIRN) shipped a sample collection box to you

Hi Jake

I got the box and have the food samples packaged and ready to ship. I'm a little confused by the note on the network procedures handout. If I'm only shipping pet food samples, do I still need to put a label on the box that says "exempt patient specimen."

Thanks
Lisa

Lisa M. Freeman, DVM, PhD, DACVN
Board Certified Veterinary Nutritionist™
Professor
Cummings School of Veterinary Medicine
Friedman School of Nutrition Science and Policy
Tufts Clinical and Translational Science Institute
Tufts University
www.petfoodology.org

From: Freeman, Lisa
Sent: Wednesday, August 22, 2018 1:30 PM
To: Guag, Jake <Jake.Guag@fda.hhs.gov>
Subject: RE: Heads up: FDA (Vet-LIRN) shipped a sample collection box to you

Thanks, Jake
Lisa

Lisa M. Freeman, DVM, PhD, DACVN
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Tufts Clinical and Translational Science Institute
Tufts University
www.petfoodology.org

From: Guag, Jake <Jake.Guag@fda.hhs.gov>
Sent: Wednesday, August 22, 2018 11:14 AM
To: Freeman, Lisa <lisa.freeman@tufts.edu>
Cc: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: Heads up: FDA (Vet-LIRN) shipped a sample collection box to you

Dear Dr. Freeman,

We shipped a sample collection box to your place this morning. The box is expected to arrive tomorrow (Aug 23rd), and their tracking numbers are 1ZA4420T0197393207 with UPS.

Thank you

Jake Guag

Jake Guag, MPH, CPH
Biologist (FDA/CVM/OR/Vet-LIRN)
8401 Muirkirk Road
Laurel, Maryland 20708
Email: jake.guag@fda.hhs.gov
Tel: 240-402-0917

From: Jones, Jennifer L </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0f6ca12eaa9348959a4cbb1e829af244-Jennifer.Jo>
To: Peloquin, Sarah; 'lisa.freeman@tufts.edu'
Sent: 9/14/2018 1:39:32 PM
Subject: RE: 800.267 FDA Case Investigation for [B6] (EON-364568) and [B6] (EON-365002)

Hi Lisa,
We have the [B6] records. That's my miscommunication on our end.
Thank you! Looking forward to seeing the Taurine.
Jen

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: Peloquin, Sarah
Sent: Friday, September 14, 2018 9:36 AM
To: 'lisa.freeman@tufts.edu' <lisa.freeman@tufts.edu>
Subject: 800.267 FDA Case Investigation for [B6] (EON-364568) and [B6] (EON-365002)

Good morning Dr. Freeman,

Thank you for submitting a few more consumer complaints to FDA!

As part of our investigation, we'd like to request:

- **Full Medical Records**
 - Please email (preferred) or fax (301-210-4685) copies of [B6] and [B6] **entire** medical history (not just this event), including any referral diagnostics/records.
 - If you do not have primary vet records, do you mind sending us the primary vets' contact info?
 - We have received the cardio records you attached to the reports.
- **Owner phone interview** about [B6] and [B6] diet and environmental exposures
 - Please confirm permission to contact the owners.
 - The interview generally lasts 30 minutes.

I have attached a copy of our Vet-LIRN network procedures. The procedures describe how Vet-LIRN operates and how veterinarians help with our case investigations. I have also attached an owner-friendly version.

Please respond to this email so that we can initiate our investigation.

-
Thank you kindly,

Dr. Peloquin

Sarah K. Peloquin, DVM
Veterinary Medical Officer

U.S. Food & Drug Administration
Center for Veterinary Medicine
Veterinary Laboratory Investigation and Response Network
tel: 240-402-1218
fax: 301-210-4685
e-mail: sarah.peloquin@fda.hhs.gov



From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
To: Jones, Jennifer L
Sent: 11/9/2018 8:06:40 PM
Subject: update - [B6]

[B6] Died suddenly [B6]

Lisa M. Freeman, DVM, PhD, DACVN
Board Certified Veterinary Nutritionist™
Professor
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Friedman School of Nutrition Science and Policy
Tufts Clinical and Translational Science Institute
Tufts University
www.petfoodology.org

Cummings School of Veterinary Medicine

Clinical Pathology Laboratory
200 Westboro Road
North Grafton, MA 01536

Name/DOB: **B6** Provider: **B6**
Patient ID: **B6** Sex: CM Order Location: **B6**
Phone number: Age: 6 Sample ID: **B6**
Collection Date: 9/10/2018 2:31 PM Species: Canine
Approval date: 9/18/2018 11:01 AM Breed: Great Dane

TEST NAME	IN RANGE	RESULT	OUT OF RANGE	RANGE	UNITS	REFERENCE RANGE
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Taurine: Whole Blood Level **B6**

Whole Blood Taurine **B6** [*] nmol/mL 200-350
09/10/18 2:52 PM >200 nmol/ml=no risk for taurine deficiency

Sample ID: **B6**
END OF REPORT (Final)

Reviewed by: _____

CARDIOLOGY DIET HISTORY FORM
Please answer the following questions about your pet

Pet's name: **B6** Owner's name: **B6** Today's date: 9/10/18

- How would you assess your pet's appetite? On a scale of 1-10 with 1 being poor and 10 being excellent: _____
- Have you noticed a change in your pet's appetite over the last 1-2 weeks? (check all that apply)
 Eats about the same amount as usual Eats less than usual Eats more than usual
 Seems to prefer different foods than usual Other _____
- Over the last few weeks, has your pet (check one)
 Lost weight Gained weight Stayed about the same weight Don't know
- Please list below ALL pet foods, people food, treats, snack, dental chews, rawhides, and any other food item that your pet currently eats. Please include the brand, specific product, and flavor so we know exactly what you pet is eating.

Food (include specific product and flavor) Form Amount How often? Fed since
Examples are shown in the table – please provide enough detail that we could go to the store and buy the exact same food.

Food (include specific product and flavor)	Form	Amount	How often?	Fed since
Nutro Grain Free Chicken, Lentil, & Sweet Potato Adult	dry	1 ½ cup	2x/day	Jan 2018
85% lean hamburger	microwaved	3 oz	1x/week	Jan 2015
Pupperoni original beef flavor	treat	½	1x/day	Aug 2015
Rawhide	treat	6 inch twist	1x/week	Dec 2015
Blue Seal Natural 26	dry			puppy-14 mos
Nature's Variety Instinct Raw Boost chicken	dry			14 mos until 1/8/18
Rachel Ray Nutrish Chicken and Veggies	dry			1/8/18-present
Cooked chicken or broth		1/3-1/2 cup per meal		
Occasional peanut butter or sweet potato homemade treats				

***Any additional diet information can be listed at the bottom of this sheet**

- Do you give any dietary supplements to your pet (for example: vitamins, glucosamine, fatty acids, or any other supplements)? Yes No If yes, please list which ones and give brands and amounts:

	Brand/Concentration	Amount per day
Taurine	<input type="radio"/> Yes <input checked="" type="radio"/> No _____	_____
Carnitine	<input type="radio"/> Yes <input checked="" type="radio"/> No _____	_____
Antioxidants	<input type="radio"/> Yes <input checked="" type="radio"/> No _____	_____
Multivitamin	<input type="radio"/> Yes <input checked="" type="radio"/> No _____	_____
Fish oil	<input type="radio"/> Yes <input checked="" type="radio"/> No _____	_____
Coenzyme Q10	<input type="radio"/> Yes <input checked="" type="radio"/> No _____	_____
Other (please list): Example: Vitamin C	Nature's Bounty	500 mg tablets – 1 per day
_____	_____	_____
_____	_____	_____
_____	_____	_____

- How do you administer pills to your pet?
 I do not give any medications I put them directly in my pet's mouth without food
 I put them in my pet's dog/cat food I put them in a Pill Pocket or similar product
 I put them in foods (list foods): _____

Additional diet or supplement information: _____

Information below to be completed by the veterinarian:
 Current body weight: _____ kg Current body condition score (1-9): ____/9
 Muscle Condition Score: normal muscle mild muscle loss moderate muscle loss severe muscle loss

Cummings School of Veterinary Medicine

Clinical Pathology Laboratory
200 Westboro Road
North Grafton, MA 01536

Name/DOB: [B6]
Patient ID: [B6] Sex: CM Provider: [B6]
Phone number: Age: 6 Order Location: [B6]
Collection Date: 9/10/2018 2:31 PM Species: Canine Sample ID: [B6]
Approval date: 9/18/2018 11:01 AM Breed: Great Dane

TEST NAME	IN RANGE	RESULT	RANGE	UNITS	REFERENCE RANGE
		OUT OF RANGE			

Taurine: Whole Blood Level

[B6]

Whole Blood Taurine [B6] **B6** nmol/mL 200-350
09/10/18 2:52 PM >200 nmol/ml=no risk for taurine deficiency

Sample ID: [B6]
END OF REPORT (Final)

Reviewed by: _____

Soap Text Created By - Veterinarian: Clinician, Unassigned FHSA - Updated on: [B6] 12:09:16 PM

By: [B6]

Subjective

NEW VISIT (ER)

Doctor: [B6]

Student: [B6]

Presenting complaint: Tachycardia, Afib

Referral visit? Yes

Diagnostics completed prior to visit: CBC/Chem, ECG [B6]

HISTORY:

Signalment: 5 yo MN Great Dane

Current history: Coughing and gagging started on Thursday and has been persistent. Brought to vet on Saturday and rec'd coming to Tufts. Sounds like he is trying to clear his throat. Worse when lays down. Has never experienced this before. No collapse or exercise intolerance. Today seemed a little more out of breath.

Coughed up white phelgm once. Diarrhea 3 weeks ago. Eating and drinking normally.

Prior medical history: Dx with [B6] months (hasn't gotten any worse)

Current medications: Salmon oil supplements

Diet: Rachael Ray Nutrish Chicken

Vaccination status/flea & tick preventative use: Due for rabies, chewable for heatworm, seresto collar

Travel history: None

EXAM:

B6

C/V: Tachycardic, irregular rhythm with pulse deficits.

B6

ASSESSMENT:

A1: Tachycardia r/o tachyarrhythmia secondary to DCM vs stress vs hypovolemia

A2: Cough, gagging r/o CHF vs pneumonia vs lung pathology

A3: Irregular heart rhythm r/o atrial fibrillation secondary to DCM

A4: Hemoconcentration, hyperlactatemia r/o secondary to dehydration

PLAN:

P1:
P2:
P3:
P4:
P4:
P5:
P6:
P7:
P8:
P9:
P10
P11
P12

B6

Diagnostics completed:

B6 @ rDVM
-CBC: Hct **B6**; PLT **B6**; Monos **B6**
-Chem: Conjugated bili **B6** (H)
-ECG (read by IDEXX): Atrial fibrillation

B6 @ Tufts
-NOVA: Hct **B6**; Cl **B6**; Lactate **B6**
-PCV/TS **B6**

-CXR: Marked generalized cardiomegaly with LAE, interstitial infiltrates consistent with cardiogenic pulmonary edema. Pleural fissure lines.

-Cardio consult: LV walls are thin with markedly reduced contractile function. LV cavity is dilated. LA is moderately dilated. RV and RA are dilated. PA is the same size as the aorta. Trace pleural effusion. No pericardial effusion. No ascites.

-UA: USG **B6**

Diagnostics pending:

B6
-NT-pro BNP

Client communication:

Discussed with owners that Afib can be due to structural changes in the heart (like DCM) or idiopathic. His prognosis will depend on his underlying cause and his response to treatment. We will take some chest rads and have a cardio consult. We will have him on ECG constantly and start treating his Afib as soon as cardiology sees him. Another doctor will call you tomorrow between 10 am-12 pm.

Deposit & estimate status: **B6**

Resuscitation code (if admitting to ICU) **B6**

SOAP approved (DVM to sign) **B6**

[B6]
Subjective

EXAM, GENERAL

Subjective (S): [B6] is a 5 yr old MN great dane, who has a history of coughing and gagging which started on Thursday and has been persistent. Brought to vet on Saturday and recc'd coming to Tufts. Has never experienced this before. No collapse or exercise intolerance. Had diarrhea 3 weeks ago. Today is panting with some mild effort, and drinking.

Prior medical history: Dx with [B6] months (hasn't gotten any worse)

Current medications: Salmon oil supplements

Objective (O)

[B6]

H/L: 2/6 left systolic murmur, irregularly irregular heart rhythm, tachycardic, femoral pulses weak but synchronous, lungs normal bronchovesicular sounds, no crackles or wheezes appreciated. Jugular pulse 1/3 up neck.

[B6]

Assessment (A)

A1: Irregularly irregular heart beat rule out atrial fibrillation vs ventricular tachycardia vs other

A2: Tachycardia rule out atrial fibrillation vs ventricular tachycardia vs other

Plan (P)

P:
P:
P:
P:
P:
P:
P:
P:
P:
[B6]

SOAP completed by: [B6]

SOAP reviewed by: [B6]

Subjective

EXAM, GENERAL: Subjective (S) [B6] is a 5 yr old MN great dane, who has a history of coughing and gagging which started on Thursday and has been persistent. Brought to vet on Saturday and rec'd coming to Tufts. Has never experienced this before. No collapse or exercise intolerance. Had diarrhea 3 weeks ago. Today is breathing with some mild effort, drinking, and eating.

Prior medical history: Dx with [B6] (hasn't gotten any worse)

Current medications: Salmon oil supplements

Subjective (S) BAR, mentally appropriate

Objective (O)

[B6]

H/L: heart irregularly irregular heart rhythm, jugular pulses lower 1/3 of neck, femoral pulses weak but synchronous. Lungs normal bronchovesicular sounds bilaterally, no crackles or wheezes appreciated.

[B6]

Assessment (A)

A1: Irregularly irregular heart beat rule out atrial fibrillation vs ventricular tachycardia vs other

A2: Tachycardia rule out atrial fibrillation vs ventricular tachycardia vs other

Plan (P)

P:
P:
P:
P:
P:
P:
P:
P:
P:

[B6]

SOAP completed by: [B6]

SOAP reviewed by: [B6]

Soap Text Created By - Veterinarian: B6 - Updated on: 9/10/2018 2:15:33 PM By: B6

From: [REDACTED] **B6**
To: Jones, Jennifer L
Sent: 9/13/2018 12:14:39 AM
Subject: RE: 800.267-FDA Case Investigation for [REDACTED] **B6** (EON-358842)
Attachments: [REDACTED] **B6** Cardio DI 9.5.18.pdf; [REDACTED] **B6** Chem 9.5.18.pdf; [REDACTED] **B6** Chem 9.5.181.pdf; [REDACTED] **B6** Pro-BNP.pdf

Hi Dr. Jones,

I'm attaching [REDACTED] **B6** latest cardiology report from Tufts. She is showing improvement!!!! She will have another echo in early November and we're hoping to see continued improvement.

Unfortunately, her brother (littermate) who was fed EXACTLY the same food went into failure [REDACTED] **B6** It looks like the same issue. Once he's discharged from Tufts and we have the full report, I'll have his owner file a report with the FDA as well.

I also went back again to the owner of the stud line. It literally goes back 40 years. No rampant heart disease. A handful of cases in older dogs (7-8 yo) over the years. One young dog with afib of unknown etiology 8 years ago. The bitch side is equally healthy.

I hope this is helpful.

Regards,

[REDACTED] **B6**

From: [REDACTED] **B6**
Sent: Monday, July 23, 2018 2:14 PM
To: 'Jones, Jennifer L' <Jennifer.Jones@fda.hhs.gov>
Subject: RE: 800.267-FDA Case Investigation for [REDACTED] **B6** (EON-358842)

Attached are [REDACTED] **B6** records from [REDACTED] **B6** and her most recent labs.

From: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Sent: Friday, July 20, 2018 7:33 AM
To: [REDACTED] **B6**
Subject: RE: 800.267-FDA Case Investigation for [REDACTED] **B6** (EON-358842)

Yes, please have them email or fax (301-210-4685) the records to me, whichever is more convenient.

I will speak with you next Tuesday (7/24) at 10 am eastern.
Thank you,
Dr. Jones

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421



From: [REDACTED] **B6**
Sent: Friday, July 20, 2018 7:29 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: Re: 800.267-FDA Case Investigation for [REDACTED] **B6** (EON-358842)

Hi Dr. Jones,

I'll actually speak to [B6] tomorrow when we are there for her follow up with the cardiologist.

Would you like them emailed directly to you at this point?

Also, I would be available Tuesday 7/24 at 10:00 am est. if that works for you.

Thank You,

[B6]

On Jul 20, 2018, at 6:56 AM, Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov> wrote:

Good morning [B6]

I received the medical records from [B6] Hospital, but they do not contain specific informatin related to the [B6] vet hospital visits. Would you please contact [B6] to have them send us [B6] records? What is your availability for a phone interview next week (July 23-July 27) and the following week (July 30-August 3rd)? My normal office hours are 6:30am to 3:30pm eastern.

Thank you,
Dr. Jones

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421
<[image001.png](#)> <[image002.png](#)>

From: Reimschuessel, Renate
Sent: Tuesday, July 17, 2018 12:49 PM
To: [B6]
Cc: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: RE: 800.267-FDA Case Investigation for [B6] (EON-358842)

Dear [B6]
Thank you for your response.
Dr. Jones will be contacting you regarding the interview – which is usually done after we have been able to review the records.
We appreciate your help with this investigation.
Best Regards
Dr. Reimschuessel

From: [B6]
Sent: Tuesday, July 17, 2018 12:25 PM
To: Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Subject: Re: 800.267-FDA Case Investigation for [B6] (EON-358842)

Hi,

I've requested that [B6] vet email you her complete record including the record they have received from [B6]

As far as speaking, I don't know if you wish to do it after her follow up on 7/21 with the cardiologist or before.

If before, I'm actually available this afternoon or really any day this week [B6] is actually my [B6] so

with her not able to work, my activities are rather limited.

Please let me know how you would like proceed with the phone interview.

Also, my cell is [B6] if that is not in the record.

Thank You,

[B6]

On Jul 17, 2018, at 11:52 AM, Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov> wrote:

Dear [B6]

Thank you for submitting your consumer complaint to FDA. I'm sorry to hear about [B6] illness.

As part of our investigation, we'd like to request:

- **Full Medical Records**

- Please contact *your veterinarian* and ask them to email (preferred) or fax (301-210-4685) a copy of [B6] **entire** medical history (not just this event, including your local vet records **as well as** [B6])

- **Phone interview** about [B6] diet and environmental exposures

- Please email 3 dates with times when you are available to speak for 30 minutes. My normal office hours are 6:30am to 3:30pm eastern.
- The interview will help us better understand the details in your case.

I attached a copy of our Vet-LIRN network procedures. The procedures describe how Vet-LIRN operates and how owners help with our case investigations.

Please respond to this email so that we can initiate our investigation.

Thank you kindly,

Dr. Reimschuessel

Renate Reimschuessel V.M.D. Ph.D.

Director: Vet-LIRN

(Veterinary Laboratory Investigation and Response Network)

Center For Veterinary Medicine, FDA,
8401 Muirkirk Road, Laurel, MD 20708

Phone 1- 240-402-5404 Fax 301-210-4685

EMAIL : renate.reimschuessel@fda.hhs.gov

Vet-LIRN

<http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>

Phish-Pharm

<http://www.fda.gov/AnimalVeterinary/ScienceResearch/ToolsResources/Phish-Pharm/default.htm>

Aquaculture

<http://www.fda.gov/AnimalVeterinary/ScienceResearch/ResearchAreas/ucm130892.htm>

<03-Vet-LIRN-Network ProceduresOwners-12.22.2015.pdf>

IDEXX VetConnect 1-888-433-9987

Client: **B6**
Patient: **B6**
Species: CANINE
Breed: GREAT_DANE
Gender: FEMALE
Age: 2Y

Date: **B6**
Requisition #: 425815
Accession #: **B6**
Ordered by: **B6**

TUFTS UNIVERSITY
200 WESTBORO RD
NORTH GRAFTON, Massachusetts 01536-1828
508-839-5395

Account #80735

CARDIOPET proBNP - CANINE

Test	Result	Reference Range	Low	Normal	High
CARDIOPET proBNP - CANINE	B6	0 - 900 pmol/L	HIGH		B6

Comments:

1 **B6**

Please note: Complete interpretive comments for all concentrations of Cardiotet proBNP are available in the online directory of services. Serum specimens received at room temperature may have decreased NT-proBNP concentrations.

From: Jones, Jennifer L </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0f6ca12eaa9348959a4cbb1e829af244-Jennifer.Jo>
To: 'Freeman, Lisa'
Sent: 9/25/2018 5:15:30 PM
Subject: 800.267-FDA Case Investigation for [B6] (EON-358842)
Attachments: [B6] Cardio DI 9.5.18.pdf

Hi Lisa,

The owner sent me a copy of [B6] recheck echo from 9/5. Could you please forward a copy of the echo measurements?

Thank you,
Jen

Jennifer L. A. Jones, DVM

Veterinary Medical Officer
U.S. Food & Drug Administration
Center for Veterinary Medicine
Office of Research
Veterinary Laboratory Investigation and Response Network (Vet-LIRN)
8401 Muirkirk Road, G704
Laurel, Maryland 20708
new tel: 240-402-5421
fax: 301-210-4685
e-mail: jennifer.jones@fda.hhs.gov
Web: <http://www.fda.gov/AnimalVeterinary/ScienceResearch/ucm247334.htm>



From: [B6]
To: Jones, Jennifer L
Sent: 11/14/2018 1:41:38 PM
Subject: Re: 800.267-FDA Case Investigation for [B6] (EON-358842)
Attachments: Echo november.pdf; ProBnp Nov.pdf

Good Morning Dr. Jones,

Attached are the most recent reports on [B6] She is recovering!

However, I had a rather disturbing discussion with [B6] from Taste of the Wild. She commented that "The FDA appears to be backing off the issue." Is this true? She also commented that "The FDA only has 150 cases." Again, how can this possibly be true? I see the dogs at Tufts. I see the dogs online being discussed. Certainly there are more than 150 cases. Dr. Stern has at least 50 dogs just at UC Davis.

I find it distressing that a food manufacturer believes the FDA is "backing off" the issue when in fact, we know this is a very real and serious issue.

Thank You,

[B6]

IDEXX VetConnect 1-888-433-9987

Client: **B6**
Patient:
Species: CANINE
Breed: GREAT_DANE
Gender: FEMALE
Age: 2Y

Date: 11/08/2018
Requisition #: 445227
Accession #: **B6**
Ordered by: **B6**

TUFTS UNIVERSITY
200 WESTBORO RD
NORTH GRAFTON, Massachusetts 01536-1828
508-839-5395

Account #80735

CARDIOPET proBNP - CANINE

Test	Result	Reference Range	Low	Normal	High
CARDIOPET proBNP CANINE	B6	0 - 900 pmol/L		B6	

Comments:

1. **B6**

Please note: Complete interpretive comments for all concentrations of Cardiotest proBNP are available in the online directory of services. Serum specimens received at room temperature may have decreased NT-proBNP concentrations.

From: [REDACTED] B6
To: Jones, Jennifer L
Sent: 11/15/2018 6:23:46 PM
Subject: Re: 800.267-FDA Case Investigation for [REDACTED] B6 (EON-358842)

Thank you and Happy Thanksgiving to you as well!

On Nov 15, 2018, at 12:36 PM, Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov> wrote:

Good morning [REDACTED] B6

Thank you for sharing the updated medical records. I'm very happy to hear that [REDACTED] B6 is recovering! We are actively investigating the potential connection between the diets and dilated cardiomyopathy. We should have a new web update coming out soon that details the progress of our investigation. The new update will be posted here: <https://www.fda.gov/AnimalVeterinary/NewsEvents/CVMUpdates/default.htm>
Thank you for the additional information and Happy Thanksgiving,
Dr. Jones

Jennifer Jones, DVM
Veterinary Medical Officer
Tel: 240-402-5421
<[image001.png](#)> <[image002.png](#)>

From: [REDACTED] B6
Sent: Wednesday, November 14, 2018 8:42 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: Re: 800.267-FDA Case Investigation for [REDACTED] B6 (EON-358842)

Good Morning Dr. Jones,

Attached are the most recent reports on [REDACTED] B6 She is recovering!

However, I had a rather disturbing discussion with [REDACTED] B6 from Taste of the Wild. She commented that "The FDA appears to be backing off the issue." Is this true? She also commented that "The FDA only has 150 cases." Again, how can this possibly be true? I see the dogs at Tufts. I see the dogs online being discussed. Certainly there are more than 150 cases. Dr. Stern has at least 50 dogs just at UC Davis.

I find it distressing that a food manufacturer believes the FDA is "backing off" the issue when in fact, we know this is a very real and serious issue.

Thank You,

[REDACTED] B6

From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
To: Jones, Jennifer L
Sent: 11/20/2018 2:02:10 PM
Subject: [REDACTED] updates
Attachments: bnp 11-8-18.pdf; cardio report 11-8-18.pdf; cbc 11-8-18 [REDACTED] pdf; discharge report 11-8-18 [REDACTED].pdf; profile 11-8-18 [REDACTED].pdf; taurine [REDACTED] pdf

Hi Jen,
Not sure if you also got these from owner but wanted to send as an update on this dog
Thanks
Lisa

Lisa M. Freeman, DVM, PhD, DACVN
Board Certified Veterinary Nutritionist™
Professor
Cummings School of Veterinary Medicine
Friedman School of Nutrition Science and Policy
Tufts Clinical and Translational Science Institute
Tufts University
www.petfoodology.org

Client: **B6**
Patient: **B6**
Species: CANINE
Breed: GREAT_DANE
Gender: FEMALE
Age: 2Y

Date: 11/08/2018
Requisition #: 445227
Accession #: **B6**
Ordered by: **B6**

IDEXX VetConnect 1-888-433-9967
TUFTS UNIVERSITY
200 WESTBORO RD
NORTH GRAFTON, Massachusetts 01536-1828
508-839-5395
Account #80735

CARDIOPET proBNP - CANINE

Test	Result	Reference Range	Low	Normal	High
CARDIOPET proBNP - CANINE	B6	0 - 900 pmol/L		B6	

Comments:

1 **B6**

Please note: Complete interpretive comments for all concentrations of Cardiotest proBNP are available in the online directory of services. Serum specimens received at room temperature may have decreased NT-proBNP concentrations.

~~24731~~
24731

B6
pat Race
2:18 PM
SHIP w ICE PACKS, TAURINE
(WHOLE BLOOD)
Lithium Heparin
B6

Amino Acid Laboratory Sample Submission Form

Amino Acid Laboratory, 1089 Veterinary Medicine Drive, Davis, Ca 95616
Telephone: 530-752-5058, Fax: 530-752-4698
Email: ucd.aminoacid.lab@ucdavis.edu
www.vetmed.ucdavis.edu/labs/amino-acid-laboratory

Veterinarian Contact: **B6**

Clinic/Company Name: Tufts Cummings School of Vet. Med. - Clinical Pathology Laboratory

Address: 200 Westboro Road, North Grafton MA 015369

Email: Clinpath@tufts.edu

Telephone: 508-887-4669 Fax: 508-839-7936

Billing Contact: **B6** Email: **B6**

Billing Contact Phone: **B6** Tax ID: _____

Patient Name: **B6** Species: Canine

Breed: Great dane Owner's Name: **B6**

Current Diet : proplan

Sample type: Plasma Whole Blood Urine Food Other **B6**

Test: Taurine Complete Amino Acids Other: _____

Taurine Results (lab use only)

Plasma: _____ Whole Blood: **B6** Urine: _____ Food: _____

taurine
B10

	Plasma (nMol/ml)		Whole Blood (nMol/ml)	
	Normal Range	No known risk for deficiency	Normal Range	No known risk for deficiency
Cat	80-120	>40	300-600	>200
Dog	60-120	>40	200-350	>150

* Please note with the recent increase in the number of dogs screened for taurine deficiency, we are seeing dogs with values within the reference ranges (or above the "no known risk for deficiency range") yet are still exhibiting signs of cardiac disease. Veterinarians are welcome to contact our laboratory for assistance in evaluating your patient's results.

From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
To: Jones, Jennifer L
Sent: 12/3/2018 1:15:52 AM
Subject: updates
Attachments: bnp 11-8-18.pdf; cardio report 11-2-18.pdf; cbc 11-8-18 [B6].pdf; discharge report 11-8-18 [B6].pdf; echo 11-8-18.pdf; profile 11-8-18 [B6].pdf

Hi Jen

Attached are follow up echoes on 2 of the cases I reported.

[B6]

I have a bunch of new ones to report that I'll submit asap

Thanks

lisa

Lisa M. Freeman, DVM, PhD, DACVN
Board Certified Veterinary Nutritionist™
Professor
Cummings School of Veterinary Medicine
Friedman School of Nutrition Science and Policy
Tufts Clinical and Translational Science Institute
Tufts University
www.petfoodology.org

Client: **B6**
Patient: **B6**
Species: CANINE
Breed: GREAT_DANE
Gender: FEMALE
Age: 2Y

Date: 11/08/2018
Requisition #: 445227
Accession #: **B6**
Ordered by: **B6**

IDEXX VetConnect 1-888-433-9967

TUFTS UNIVERSITY
200 WESTBORO RD
NORTH GRAFTON, Massachusetts 01536-1828
508-839-5395

Account #80735

CARDIOPET proBNP - CANINE

Test	Result	Reference Range	Low	Normal	High
CARDIOPET proBNP - CANINE	B6	0 - 900 pmol/L		B6	

Comments:

B6

Please note: Complete interpretive comments for all concentrations of Cardiotest proBNP are available in the online directory of services. Serum specimens received at room temperature may have decreased NT-proBNP concentrations.

Sample Submission Form

Amino Acid Laboratory
 University of California, Davis
 1020 Vet Med 3B
 1089 Veterinary Medicine Drive
 Davis, CA 95616
 Tel: (530)752-5058, Fax: (530)752-4698

UC CUSTOMERS ONLY:
 Non-federal funds ID/Account Number
 to bill: _____

<http://www.vetmed.ucdavis.edu/vmb/aal/aal.html>

Vet/Tech Contact: B6
 Company Name: Tufts Cummings School of Vet Med - Clinical Pathology Laboratory
 Address: 200 Westboro Road
North Grafton, MA 01536

Email: clinpath@tufts.edu;
 Tel: 508-887-4669 Fax: 508-839-7936

Billing Contact: B6 TAX ID: _____
 Email: chery B6 Tel: B6

Patient Name: B6
 Species: canine
 Owner's Name: B6

Sample Type: Plasma Whole Blood Urine Food Other: _____
 Test Items: Taurine Complete Amino Acid Other: _____

Taurine Results (nmol/ml)
 Plasma: B6 Whole Blood: B6 Urine: _____ Food: _____

Reference Ranges (nmol/ml)

	Plasma		Whole Blood	
	Normal Range	No Known Risk for Taurine Deficiency	Normal Range	No Known Risk for Taurine Deficiency
Cat	80-120	>40	300-600	>200
Dog	60-120	>40	200-350	>150


 1005200250
B6
 TAURINE PANEL
 Lithium Heparin

B6

Patient Information

Patient: **B6** Age: 9 years Referring Veterinarian: **B6**
Patient Number: **B6** Weight:(kg) 27.30 Cardiologist: **B6**
Breed: English Bulldog Sex: MN Client Number: **B6**
Exam Date: 05/30/2018 11:27 BSA: 0.92

History: **B6** presents to **B6** today for evaluation of his heart after being seen through **B6** **B6** yesterday for a distended abdomen. **B6** is currently being treated by **B6** for **B6** and received his 9th dose of **B6** on 5/17/18. The client reports over the weekend they noticed **B6** abdomen slowly becoming more and more distended and he seemed uncomfortable in his abdomen. The clients also noted some decrease in appetite as his abdomen became more distended. The client reports that **B6** has a history of vagal collapse episodes after a bowel movement that increased in frequency over the weekend. After a bowel movement **B6** will fall to the side. He remains conscious and sometimes vomits after these episodes. The client reports **B6** had one episode per day over the weekend. They removed 1500 mls of fluid from **B6** abdomen last night and gave him a 2 mg/kg IV injection of **B6**.

Physical Examination: temp: 100.2 HR: 120 RR: 32
Grade 2/6 left apical systolic murmur. Irregular rhythm with frequent single premature beats (every 5-6 beats) with associated pulse deficits. Lungs clear with decreased lung sounds on the right. Normal abdominal palpation, no palpable fluid wave. Unable to appreciate jugular distention. Normal peripheral lymph nodes. muc pink, normal refill, well hydrated.

Diagnostic Tests: Blood Pressure: 148mmHg 5cm cuff LF
ECG: Sinus tachycardia with 100 single ventricular premature beats in 8 minutes. Two couplets noted during echo. HR 160bpm, QT 0.2s, PR 0.1s.
Echo: See Below

Echocardiographic Report

Left Ventricle: Moderate dilation with global decrease in contraction.
Left Atrium: Moderate dilation.
Right Ventricle: Moderate dilation with decrease in function.
Right Atrium: Moderate dilation.
Mitral Valve: 3+ central regurgitation. Fused inflow.
Aortic Valve: Normal.
Tricuspid Valve: 3+ central regurgitation.

B6

Pulmonic Valve: Normal. The pulmonary mass is visible alongside the right lobar pulmonary artery. There is no turbulent or high velocity flow to suggest compression of the artery by the mass and peak TR velocity does not support significantly elevated RV or PA pressures. Portion of mass measurable by echo measures 4.9cm in diameter, significantly smaller than measurement on radiographs, and thus full extent of the mass is probably not appreciated.

Aorta: Normal.

Pericardium: Normal.

Diagnosis

Dilated cardiomyopathy - This is a disease characterized by weakening of the heart muscle and dilation of the heart chambers. As the disease progresses, it can lead to congestive heart failure (fluid in the lungs causing shortness of breath and cough or as in **B6** fluid in the abdomen). Abnormal heart rhythms are common and can result in sudden death. Most commonly this is an inherited disease, though it can occur secondary to a deficiency in an amino acid called taurine.

Ventricular arrhythmias - These are abnormal heart beats from the lower heart chambers. As single beats, these rarely cause any symptoms. However, when these abnormal beats come in rapid succession (ventricular tachycardia) they can result in weakness, collapse, and even sudden death. These are common in dogs with dilated cardiomyopathy. I am not going to start treatment for these as yet, as **B6** only had single and double early heart beats today and is in active heart failure, and the antiarrhythmic medication can often cause loss of appetite and other GI signs. However, we will reevaluate his rhythm once his heart failure is controlled to make sure that this is a reasonable choice.

B6

Collapse associated with defecation.

B6

Recommendations

B6

PLEASE CONTINUE:

B6 as previously directed.

Please ADD:

B6

Please also supplement **B6** with taurine at 1000mg by mouth every 12 hours. This is available over-the-counter at most pharmacies or health food stores. We do not recommend purchase over the internet.

I would prefer that you change **B6** diet. My preference is that you pick a food from Royal Canin, Purina, or Hill's that is NOT grain free and ideally not a lamb and rice diet. We also recommend that **B6** diet be low in sodium. We are sending home some diet lists with low sodium diets that you can choose from, or if you wish to pick something not on these lists you can call the food manufacturer to obtain the sodium content. We want him to eat a diet with less than 80mg of sodium per 100 kcal of food.

Please call if **B6** abdomen becomes more distended, if his collapse episodes continue frequently, or if you have other concerns. I would like to recheck **B6** in another 1-2 weeks. We will recheck a kidney panel, blood pressure, and ECG at that visit, and look for free fluid in his abdomen.

B6

(Electronically Signed)

Final Date:

B6

Notes to our clients

- Please bring all medications to your pet's scheduled appointments.
- We require a 48 hour notice for all refills. When you call to request a refill, please leave the pharmacy phone number or clearly indicate if you plan on picking up the medication at our facility. PRESCRIPTION REFILLS ARE NOT AVAILABLE AFTER **B6** REGULAR BUSINESS HOURS (Evenings, Fridays, holidays and weekends).
- Check out WWW.GOODRX.COM and enter your local zip code to search for the best prices on your medications at your local pharmacies.
- If an emergency arises with your pet, **B6** is a 24-hour facility.

CARDIOLOGY DIET HISTORY FORM

Please answer the following questions about your pet.

Pet's name: **B6** Owner's name: **B6** S-2018

1. How would you assess your pet's appetite? (mark the point on the line below that best represents your pet's appetite)
 Example: Poor _____ Excellent
 Poor _____ Excellent

2. Have you noticed a change in your pet's appetite over the last 1-2 weeks? (check all that apply)
 Eats about the same amount as usual Eats less than usual Eats more than usual
 Seems to prefer different foods than usual Other _____

3. Over the last few weeks, has your pet (check one)
 Lost weight Gained weight Stayed about the same weight Don't know

4. Please list below ALL pet foods, people food, treats, snack, dental chews, rawhides, and any other food item that your pet currently eats. Please include the brand, specific product, and flavor so we know exactly what you pet is eating.

Food (include specific product and flavor) Form Amount How often? Fed since
 Examples are shown in the table - please provide enough detail that we could go to the store and buy the exact same food.

Food (include specific product and flavor)	Form	Amount	How often?	Fed since
Nutro Grain Free Chicken, Lentil, & Sweet Potato Adult	dry	1 1/2 cup	2x/day	Jan 2018
85% lean hamburger	microwaved	3 oz	1x/week	Jan 2015
Pupperoni original beef flavor	treat	1/2	1x/day	Aug 2015
Rawhide	treat	6 inch twist	1x/week	Dec 2015
<i>Zigzag Life Lamb</i>	<i>dry</i>	<i>1 cup</i>	<i>2x/day</i>	<i>May 2015</i>
<i>Foodstuffs Stinky Buns</i>	<i>treat</i>			

*Any additional diet information can be listed on the back of this sheet.

5. Do you give any dietary supplements to your pet (for example: vitamins, glucosamine, fatty acids, or any other supplements)? Yes No If yes, please list which ones and give brands and amounts:

	Brand/Concentration	Amount per day
Taurine	<input type="checkbox"/> Yes <input type="checkbox"/> No _____	_____
Carnitine	<input type="checkbox"/> Yes <input type="checkbox"/> No _____	_____
Antioxidants	<input type="checkbox"/> Yes <input type="checkbox"/> No _____	_____
Multivitamin	<input type="checkbox"/> Yes <input type="checkbox"/> No _____	_____
Fish oil	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>CVS Health</i>	<i>1000mg - 2x/day</i>
Coenzyme Q10	<input type="checkbox"/> Yes <input type="checkbox"/> No _____	_____
Other (please list): Example: Vitamin C	<i>Nature's Bounty</i>	<i>500 mg tablets - 1 per day</i>

B6

6. How do you administer pills to your pet?
 I do not give any medications I put them directly in my pet's mouth without food
 I put them in my pet's dog/cat food I put them in a Pill Pocket or similar product
 I put them in foods (list foods): protein balls

Information below to be completed by the veterinarian:

Current body weight: _____ kg Current body condition score (1-9): _____/9
 Muscle Condition Score: normal muscle mild muscle loss moderate muscle loss severe muscle loss

B6

Outpatient Discharge Instructions

Emergency/Critical Care Service

Date: B6

Pets Name: B6 MC English Bulldog

Owner's Name: B6

Primary Care Veterinarian/Hospital:

1) B6
2)

Problem List/Diagnoses:

1. Abdominal effusion (fluid accumulation in the abdomen)
2. Suspected right sided congestive heart failure; Suspected pulmonary hypertension
3. Lung masses – Carcinoma- mild progression since April 2018
4. History of B6
5. History of
6. History of

History: B6 was presented through the ER service today for a distended and uncomfortable stomach. He has been less active over the weekend and his abdomen looked bigger than normal. He is groaning. His vagal events are occurring more frequently as well (will collapse after having a BM). He also vomited after one of these events. B6 is a patient of B6. He received his 9th dose of B6 (250mg IV) on 5/17/18. He is also on B6.

Physical Exam Findings:

B6

Treatments Administered:

B6

B6

Outpatient Discharge Instructions

Emergency/Critical Care Service

1. B6

2.

3.

B6

Diet and Exercise:

Diet: Normal Water only after 12am

Exercise: Normal Allow B6 to set his own pace. No excessive activity.

Medications: None

Additional Instructions:

1. Please call B6 at 8:30am tomorrow to set up time for arrival for ER exam. Please let them know when you call that B6 was treated at B6 tonight.
2. B6 was diagnosed with fluid in his abdomen. Based on ultrasound findings and appearance of the fluid, I suspect that B6 is in right sided heart failure. It is possible that the masses in his lungs are causing him to develop pulmonary hypertension and right sided heart failure. To confirm this hypothesis, I am recommending that B6 have an ultrasound (echocardiogram) of his heart with B6 a Veterinary Cardiologist, tomorrow.
3. B6 was treated with a diuretic tonight to also help resolve the fluid accumulation and decrease stress on his heart. This will lead to him having to urinate more frequently tonight and drink more water.
4. Please continue to monitor B6 for lethargy, decreased appetite, vomiting, diarrhea, difficulty breathing and/or increased frequency of collapse. If there are concerns tonight, bring him back in for evaluation.

Please contact our hospital if your pet exhibits any of the following:

- Vomiting
- Severe diarrhea
- Loss of appetite for more than 1 day
- Refusal to drink water for more than 1 day
- Weakness
- Extreme lethargy
- No urine produced for 24 hours
- Pale gums
- Difficulty breathing

Future Appointment - Please follow up with B6 part of B6 tomorrow morning.

Please do not hesitate to call with any additional questions or concerns.

B6

B6

Outpatient Discharge Instructions

Emergency/Critical Care Service

We are pleased to offer a 7 day a week, 24 hour emergency service. If you have questions, concerns or your pet needs to be seen, please call any time, day or night. Our support staff is available to help with your concerns, even if your doctor is unavailable.

Your pet has been re-entrusted to your care. If you do not fully understand the expected needs and anticipated progression, please discuss this with us. Be sure you understand the prescribed therapy and do not discontinue the therapy without discussion. If you have any concerns or questions,

Please call to speak to a staff member during regular hours or to the emergency staff after hours.

B6

Client signature

Technician initials

B6

B6

Client ID:
Client Name:
Spouse/Other:
Address:
Telephone:

B6

Patient ID: **B6**
Name:
Breed: Bulldog, English
Sex: Neutered Male
Color: Red and White
Age: 9 Yrs. 0 Mos.
DOB: **B6**

Referring Veterinarian:
Practice:
Phone:
FAX:

B6

Cardiology Reevaluation

Reevaluation of:

Collapse associated with defecation. Historical **B6** Ventricular arrhythmia. **B6** Dilated cardiomyopathy

B6 is doing well at home. He has been switched over to Purina Proplan Adult Weight Management diet which he is eating really well. He has had no vomiting or diarrhea. The clients have not seen his abdomen become distended since his abdominal tap prior to seeing us for the first time. He has had no change in activity level, however he is not a very high energy level dog to begin with.

Physical Exam:

	5/30/2018	6/11/2018
	2:04 PM	8:40 AM
Vital Sign	145	145
Weight	27.3 kilograms	28.1 kilograms
Temp	100.2	101
HR	120	140
RR	32	32
BP		114

#5, LF

Grade 2/6 left apical systolic murmur. Underlying regular rhythm with frequent premature beats and pulse deficits. Normal abdominal palpation. Normal PLNs. Well hydrated. Lungs clear. mm pink, normal refill.

Diagnostics:

ECG: HR 170bpm on average, sinus tachycardia with frequent single, couplet and rare triplet ventricular premature beats. Couplets were often R on T. Triplets (2) were multiform. 55 single ventricular premature beats, 102 ventricular couplets, and two triplets were counted in the first 5 minutes of observation. The rhythm continued in similar fashion throughout the observation period (15 minutes).

Renal Panel: clinically unremarkable

STP: no free abdominal fluid

Diagnosis:

Ventricular arrhythmia - these are very frequent and although we did not see any sustained runs of these abnormal beats, **B6** was having fast multiples

Dilated cardiomyopathy
Right-sided congestive heart failure (ascites) - controlled

B6

Collapse associated with defecation - suspect vaso-vagal

B6

Recommendations:

Please give the following medications as directed:

ITEM DESCRIPTION	DIRECTIONS
B6	Give 1 tablet by mouth every 24 hours. Give 1 tablet by mouth in the mornings and 1/2 tablet by mouth in the evenings, at 12 hour intervals. Give 1 tablet by mouth every 12 hours. Give 1 tablet by mouth every 12 hours. As directed.

Please ADD:

B6

We would like to recheck a long ECG in **B6** in another 2 weeks to make sure his heart rhythm is controlled with the new medication. Please call if you have any concerns in the meantime. I am really happy with the heart failure control that we have attained on the new medications!

B6

*****Notes to our clients*****

-Please bring all medications to your pet's scheduled appointments.

-We require a 48 hour notice for all refills. When you call to request a refill, please leave the pharmacy phone number or clearly indicate if you plan on picking up the medication at our facility. PRESCRIPTION REFILLS OUTSIDE OF **B5, B6**

B6 REGULAR BUSINESS HOURS (Evenings, Fridays, holidays, and weekends) MAY BE ASSOCIATED WITH AN AFTER HOURS FILLING FEE.

-Check out www.goodrx.com and enter your local zip code to search for the best prices on your medications at your local pharmacies.

-If an emergency arises with your pet, **B6** is only a phone call away. **B6** is a 24 hour facility and the emergency veterinarians can always reach the cardiologist on-call.

-Please schedule your recommended recheck as soon as possible. Our schedule tends to book up quite quickly and we want to make sure that we see your pet in a timely manner.

From: Glover, Mark </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=23FC3452DFD0414184CBB290047B7865-MARK.GLOVER>
To: Rotstein, David; Carey, Lauren; Palmer, Lee Anne; Jones, Jennifer L; Ceric, Olgica; Nemser, Sarah; Queen, Jackie L
CC: Rotstein, David
Sent: 7/2/2018 8:19:50 PM
Subject: Re: Another DCM-FW: Zignature Kangeroo and Lentil: [B6] - EON-358128

Thanks Dave

From: Rotstein, David <David.Rotstein@fda.hhs.gov>
Date: July 2, 2018 at 4:15:35 PM EDT
To: Carey, Lauren <Lauren.Carey@fda.hhs.gov>, Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>, Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>, Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>, Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>, Queen, Jackie L <Jackie.Queen@fda.hhs.gov>, Glover, Mark <Mark.Glover@fda.hhs.gov>
Cc: Rotstein, David <David.Rotstein@fda.hhs.gov>
Subject: Another DCM-FW: Zignature Kangeroo and Lentil: [B6] - EON-358128

David Rotstein, DVM, MPVM, Dipl. ACVP
CVM Vet-LIRN Liaison
CVM OSC/DC/CERT
7519 Standish Place
240-506-6763 (BB)



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From: PFR Event [mailto:pfpreventcreation@fda.hhs.gov]
Sent: Monday, July 02, 2018 4:12 PM
To: Cleary, Michael * <Michael.Cleary@fda.hhs.gov>; HQ Pet Food Report Notification <HQPetFoodReportNotification@fda.hhs.gov> [B6]
Subject: Zignature Kangeroo and Lentil: [B6] - EON-358128

A PFR Report has been received and PFR Event [EON-358128] has been created in the EON System.

A "PDF" report by name "2051197-report.pdf" is attached to this email notification for your reference. Please

note that all documents received in the report are compressed into a zip file by name "2051197-attachments.zip" and is attached to this email notification.

Below is the summary of the report:

EON Key: EON-358128

ICSR #: 2051197

EON Title: PFR Event created for Zignature Kangeroo and Lentil; 2051197

AE Date	05/29/2018	Number Fed/Exposed	
Best By Date		Number Reacted	1
Animal Species	Dog	Outcome to Date	Better/Improved/Recovering
Breed	Mixed (Dog)		
Age	9 Years		
District Involved	PFR: B6 DO		

Product information

Individual Case Safety Report Number: 2051197

Product Group: Pet Food

Product Name: Zignature Kangeroo and Lentil

Description: Developed dry, harsh coughing in late May, which rDVM initially treated with doxycycline. Cough did not resolve and **B6** became very lethargic, inappetent, extremely exercise intolerant, and has increased respiratory effort. rDVM radiographs showed cardiomegaly and it was suspected that **B6** had developed pneumonia. **B6** was presented to **B6** on 6/23 for further evaluation, at which time **B6** was diagnosed with heart failure and cardiac medications were initiated. **B6** responded right away to cardiac medications, with improved appetite, energy levels, and a dramatic decrease in cough. The owner reports that **B6** has lost a noticeable amount of weight since the ER visit, a week ago, despite doubling the amount of food offered. Taurine level pending

Submission Type: Initial

Report Type: Adverse Event (a symptom, reaction or disease associated with the product)

Outcome of reaction/event at the time of last observation: Better/Improved/Recovering

Number of Animals Reacted With Product: 1

Product Name	Lot Number or ID	Best By Date
Zignature Kangeroo and Lentil		

Sender information

B6

B6

USA

Owner information

B6

USA

To view this PFR Event, please click the link below:

<https://eon.fda.gov/eon//browse/EON-358128>

To view the PFR Event Report, please click the link below:

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jsps?decorator=none&e=0&issueType=12&issueId=374752>

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From: Rotstein, David </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0A3B17EBFCF14A6CB8E94F322906BADD-DROTSTEI>
To: Carey, Lauren; Ceric, Olgica; Glover, Mark; Jones, Jennifer L; Nemser, Sarah; Palmer, Lee Anne; Peloquin, Sarah; Queen, Jackie L
Sent: 8/20/2018 4:22:27 PM
Subject: FW: ACANA Grain Free Chicken: [REDACTED] - EON-362839
Attachments: 2053949-report.pdf; 2053949-attachments.zip

Thanks Lauren!!!!!!

David Rotstein, DVM, MPVM, Dipl. ACVP
CVM Vet-LIRN Liaison
CVM OSC/DC/CERT
7519 Standish Place
240-506-6763 (BB)



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From: PFR Event [mailto:pfpreventcreation@fda.hhs.gov]
Sent: Monday, August 20, 2018 12:17 PM
To: Cleary, Michael * <Michael.Cleary@fda.hhs.gov>; HQ Pet Food Report Notification <HQPetFoodReportNotification@fda.hhs.gov> [REDACTED]
Subject: ACANA Grain Free Chicken: [REDACTED] - EON-362839

A PFR Report has been received and PFR Event [EON-362839] has been created in the EON System.

A "PDF" report by name "2053949-report.pdf" is attached to this email notification for your reference. Please note that all documents received in the report are compressed into a zip file by name "2053949-attachments.zip" and is attached to this email notification.

Below is the summary of the report:

EON Key: EON-362839

ICSR #: 2053949

EON Title: PFR Event created for ACANA Grain Free Chicken Turkey and Nest Laid Eggs Dry Dog Food; 2053949

AE Date	03/12/2018	Number Fed/Exposed	2
Best By Date		Number Reacted	2

Animal Species	Dog	Outcome to Date	Better/Improved/Recovering
Breed	Doberman Pinscher		
Age	5 Years		
District Involved			

Product information

Individual Case Safety Report Number: 2053949

Product Group: Pet Food

Product Name: ACANA Grain Free Chicken, Turkey and Nest Laid Eggs Dry Dog Food

Description: Originally reported as RFR EON-362682. CVM resubmitting as PFR: ACANA Dog Foods manufactured by Champion Petfoods USA: Chicken, Turkey and Nest Laid Eggs. NCSU Veterinary School has been following cases of Dilated Cardiomyopathy in dogs on grain free diets. [B6] 4-5 year old male castrated Doberman Pinscher, was diagnosed and treated for DCM and CHF at NCSU in April 2018. It was originally assumed to be breed related, however it was noted that he had been eating ACANA grain free pet food. The owner changed the food to Orijen Regional Red Grain Free diet for 1 month, then changed again to Purina Pro Plan Bright Minds in May 2018. He was seen again August 14, 2018 and a significant improvement has been reported in both his clinical signs and diagnostic imaging. Originally presented to [B6] [B6] [B6] for coughing for a 5 day duration. He was treated for DCM and CHF. He was presented 4/20/18 to the NC State Cardiology Service for further workup [B6] was adopted from a rescue group 2 years ago and has been on the ACANA grain free diet since then. Another Doberman in the house, [B6] also has developed DCM and has improved with the removal of the grain free diet.

Submission Type: Initial

Report Type: Adverse Event (a symptom, reaction or disease associated with the product)

Outcome of reaction/event at the time of last observation: Better/Improved/Recovering

Number of Animals Treated With Product: 2

Number of Animals Reacted With Product: 2

Product Name	Lot Number or ID	Best By Date
ACANA Grain Free Chicken, Turkey and Nest Laid Eggs Dry Dog Food		

Sender information

[B6]

To view this PFR Event, please click the link below:

<https://eon.fda.gov/eon//browse/EON-362839>

To view the PFR Event Report, please click the link below:

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jspa?decorator=none&e=0&issueType=12&issueId=379573>

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Diagnostic Imaging
1052 William Moore Drive
Raleigh, NC 27607
Phone: (919)513-6590
Fax: (919)513-6716

Patient ID: B6
Pet Name: B6
Surname: B6
DOB:
Species: CANINE
Secondary Acc#:
Breed: DOBERMAN PINSCHER
Gender: MALE CAS
Exam: THORAX CARDIAC DV | 710
Acc#: 322606
Exam Date: 04/20/2018
Status: FINAL
Clinician: B6
Affiliation: Cardiology
2nd Clinician:

History:

04/20/2018 10:12 AM Poss DCM B6

Assessment:

- 1. Moderate left-sided cardiomegaly, marked pulmonary venous congestion, and mild perihilar and caudodorsal unstructured interstitial pattern. Consistent with left-sided congestive heart failure most likely secondary to dilated cardiomyopathy given breed.

2. B6
3.

Report:

A total of 6 images dated 4/20/2018 are available for interpretation.

The cardiac silhouette is enlarged in the basilar to apical plane resulting in dorsal displacement of the trachea. There is a moderate convex soft tissue opacity bulge at the caudodorsal margin consistent with left atrial enlargement. The pulmonary veins are moderately enlarged compared to corresponding arteries. There is a mild perihilar and caudodorsal unstructured interstitial pattern. The pleural space is normal. No mediastinal abnormalities are identified.

The cranial abdomen has adequate serosal contrast. There is mild multifocal spondylosis deformans. In the lateral projections there are amorphous and wispy mineral opacity foci superimposing the scapulae and cranial thoracic spinous processes. The opacity shifts in position with the scapulae. A corresponding opacity is not seen in the orthogonal projections.

B6

B6

8/17/2018

Fac: NCSU-CVM

B6

4/20/2018 12:55:08 PM

B6

B6

B6

Canine Echocardiography Report

Patient Name: **B6**
Medical Rec #: **B6**
DOB: **B6**
Age: 4 years
Sex: Mc
Sonographer: **B6**

Date of Exam: 4/20/2018
Breed: Doberman
Weight: 41 kg
BSA: 1.21 m²
HR:
BP-sys:

Report Status: READ
Ref. Clinician: **B6**
Diagnosis: Dilated Cardiomyopathy
Study Details: 2D Echo/Doppler/Color Doppler. The images were of adequate diagnostic quality. The patient was awake.

2D	<u>Diastole</u>	<u>Systole</u>		
IVS	B6		%FTivs	B6
LV			%FS	
LVPW			%FTfw	
			LV EF, 4ch	
			LV CO, 4ch	

2D	B6	LAA Velocity
LA Long Axis		PDA Diam
LA d		PDA ampulla
Ao s		PV Ann
LA/Ao		

M-mode	<u>Diastole</u>	<u>Systole</u>			
RV	B6	cm	%FS	B6	LV EF B6
IVS			MRSIm		LV SV
LV			MRSI		LV CO
LVPW			EDVI	B6	
LV normalized			ESVI		
LA		cm	ESWS/ESV		EPSS B6

Normal Canine M-mode values (in cm) for 40 kg dogs.

LVIDd	LVPWd	IVSd	LA	AO	%FS
B6					

Tissue Doppler: Medial

E'	B6
A'	
S	
E'/E'	
E'/A'	

Aortic Valve: AoV

VMax	B6
Pk Grad	

B6

4/20/2018

B6

Mitral Valve:

Mn Grad E Vmax
P1/2T A Vmax
MV Area E/A

B6

Mitral Regurgitation:

MR Vmax
MR Peak Gradient
Est SBP by MR

B6

Tricuspid valve:

P 1/2 T

RA Pressure: B6

Pulmonic valve:

Vmax
Pk Grad

PV
B6

CLINICIAN INTERPRETATION:

Left Ventricle: The left ventricular cavity size is severely increased. Ventricular wall thickness is decreased. LV ejection fraction is severely decreased. LV basal fractional shortening is severely decreased.

Left Atrium: The left atrium is moderately dilated.

Right Atrium: The right atrium is normal in size.

Right Ventricle: The right ventricular size is mildly enlarged. RV wall thickness is normal. Global RV systolic function is mildly reduced.

Mitral Valve: The E-point septal separation is increased. Mild to moderate mitral valve regurgitation.

ECHO SUMMARY:

1. Severely decreased LV ejection fraction.
2. The left ventricular cavity size is severely increased.
3. Ventricular wall thickness is decreased.
4. Moderately dilated left atrium.
5. Mild to moderate mitral valve regurgitation.

CV Exam:

B6

ECG:

B6

Recommendations:

B6

These changes are most consistent with dilated cardiomyopathy. Given the breed, idiopathic DCM is suspected although dietary (currently on a grain-free diet) is a possibility.

B6

B6

4/20/2018

225069

B6

B6

Electronically signed on 4/20/2018 on 4:44:39 PM



Diagnostic Imaging
1052 William Moore Drive
Raleigh, NC 27607
Phone: (919)513-6590
Fax: (919)513-6716

Patient ID:	B6	Exam:	THORAX CARDIAC DV | 710
Pet Name:		Acc#:	331444
Surname:		Exam Date:	08/14/2018
DOB:		Status:	FINAL
Species:	CANINE	Clinician:	B6
Secondary		Affiliation:	Cardiology
Acc#:		2nd Clinician:	
Breed:	DOBERMAN PINSCHER		
Gender:	MALE CAS		

History:

08/14/2018 9:08 AM Hx of CHF on 3/17/18- resolved, DCM, VPC's, routine recheck today B6

B6

Assessment:

1. Similar left-sided cardiomegaly with left atrial enlargement and no evidence of cardiac decompensation - consistent with the history of dilated cardiomyopathy.
2. Similar mild unstructured interstitial pattern - likely age related change or fibrosis.
3. Similar amorphous mineral opacity associated with both scapulae - degenerative change with enthesopathy remains the most likely differential. An aggressive lesion remains unlikely.
4. Multifocal spondylosis deformans.

Report:

Six orthogonal views of the thorax, dated 08/14/18, are available for interpretation. This study is compared to multiple priors, the most recent dated 5/10/18.

There is similar moderate left-sided cardiomegaly with left atrial enlargement. The lobar venous distension remains similar. There is a diffuse mild unstructured interstitial pulmonary pattern. A small volume of esophageal gas is present dorsal to the carina. The mediastinal structures and pleural space are normal.

The stomach is distended with a moderate amount of heterogeneous, round soft tissue and gas material, likely normal ingesta. A linear mineral opacity is superimposed over the cranioventral abdomen on the left lateral view likely representing gastric material. The previous irregular mineral opacities superimposed over both scapulae and cranial spinous processes and moderate spondylosis deformans are similar. No other abnormalities are seen in the included cranial abdomen and musculoskeletal structures.

B6

8/17/2018

Canine Echocardiography Report

Patient Name: **B6**
Medical Rec #: **B6**
DOB: **B6**
Age: 4 years
Sex: Mc
Sonographer: **B6**

Date of Exam: 8/14/2018
Breed: Doberman
Weight: 43 kg
BSA: 1.25 m²
HR:
BP-sys:

Report Status: READ
Ref. Clinician: **B6**

Diagnosis: Dilated Cardiomyopathy w/ prior heart failure - suspect diet induced, ventricular ectopy
Study Details: 2D Echo/Doppler/Color Doppler. The images were of adequate diagnostic quality. The patient was awake.

2D	<u>Diastole</u>	<u>Systole</u>		
IVS	B6		%FTivs	B6
LV			%FS	
LVPW			%FTfw	
			LV EF, 4ch	
			LV CO, 4ch	

2D	B6	LAA Velocity
LA Long Axis		PDA Diam
LA d		PDA ampulla
Ao s		PV Ann
LA/Ao		

M-mode	<u>Diastole</u>	<u>Systole</u>		
RV	B6	cm	%FS	B6
IVS			MRSIm	
LV			MRSI	
LVPW			EDVI	LV EF
LV normalized			ESVI	LV SV
LA			ESWS/ESV	LV CO
			EPSS	B6

Normal Canine M-mode values (in cm) for 40 kg dogs.

IVId	LVPWd	IVSd	LA	AO	%FS
B6					

Aortic Valve: AoV
VMax
Pk Grad **B6**

Mitral Valve:
Mn Grad
P1/2T
MV Area
E Vmax
A Vmax
E/A **B6**

Mitral Regurgitation:
MR Vmax **B6**

B6

8/14/2018

225069

MR Peak Gradient
Est SBP by MR

B6

Tricuspid valve:

TV E Max
TV Mn Grad
P 1/2 T
TV VTI

TR Vmax
TR Pk Grad
RA Pressure:
RVSP

B6

Pulmonic valve:

Vmax
Pk Grad

PV

B6

CLINICIAN INTERPRETATION:

Left Ventricle: The left ventricular cavity size is moderate to severely increased. Ventricular wall thickness is normal. LV basal fractional shortening is moderately decreased. Spectral Doppler shows normal pattern of LV diastolic filling.

Left Atrium: The left atrium is moderately dilated.

Right Atrium: The right atrium is normal in size.

Right Ventricle: The right ventricular size is mildly enlarged. RV wall thickness is normal. Global RV systolic function is mildly reduced.

Aortic Valve: No degree of aortic stenosis is present. Trivial aortic valve regurgitation.

Mitral Valve: The E-point septal separation is increased. Mild to moderate mitral valve regurgitation.

Pulmonic Valve: The pulmonic valve is normal. No indication of pulmonary valve regurgitation.

Pericardium/Effusions: No pericardial effusion is seen.

Aorta: The aortic sinuses, arch, ascending and descending aorta appear all normal.

Pulmonary Artery: The pulmonary artery is of normal size and origin. The tricuspid regurgitant velocity is 2.32 m/s, and with an assumed right atrial pressure of 10 mmHg, the estimated right ventricular systolic pressure is normal at 31.6 mmHg.

ECHO SUMMARY:

1. The left ventricular cavity size is moderate to severely increased.
2. RV wall thickness.
3. Moderately dilated left atrium.
4. Mild to moderate mitral valve regurgitation.
5. Mild tricuspid regurgitation.

CV Exam:

B6

ECG:

B6

Recommendations: This is a recheck echocardiogram and is compared to the prior study dated 4/20/18.

B6 diet was changed from grain-free to a purina diet approximately 3 months ago. He has been treated with B6. He has been supplemented with magnesium orotate.

This study shows improvement in the cardiac size and function. The LV remains moderately to severely dilated - but has shown a significant decrease in size over the past 4 months. The LV wall thickness has increased as well. The systolic function has shown a modest improvement - but remains moderately reduced. The mitral regurgitation has decreased in severity, and the left atrium has decreased in size.

Overall these findings show a significant improvement after the patient was transitioned off a grain free diet.

B6

8/14/2018

225069

Recommend continuing the cardiac medications at the current dosages. Recommend beginning taurine and fish oil supplementation. Recommend a recheck echocardiogram and holter monitor in 3-4 months.

B6

Electronically signed on 8/15/2018 on 3:26:39 PM

Patient History Report

Client:
Phone:
Address:

B6

Patient: B6
 Species: Canine
 Age: B6
 Color: BLACK/BROWN

Breed: Pinscher, Doberman
 Sex: Neutered Male

Date	Type	Staff	History
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12/17/2016 L

B6

Hematology results from IDEXX Reference

Laboratory Requisition ID: 7916468F

Test	Result	Posted Reference Range	Final
BASO			
EOS			
HCT		38.3 - 56.5	
HGB		13.4 - 20.7	
LYMPHS			
MCH		21.9 - 26.1	
MCHC		32.6 - 39.2	
MCV		59 - 76	
MONOS			
NEUT SEG			
PLATELETS		143 - 448	
RBC		5.39 - 8.70	
RETIC CNT			
WBC		4.9 - 17.6	
ABS BASO		0 - 100	
ABS EOS		70 - 1490	
ABS LYMPHS		1060 - 4950	
ABS MONOS		130 - 1150	
ABS NEUTS		2940 - 12670	
ABS RET		10 - 110	

B6

Ascn: B6

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing Instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

Patient History Report

Client:
Phone:
Address:

B6

Patient: **B6**
Species: Canine
Age: **B6**
Color: BLACK/BROWN

Breed: Pinscher, Doberman
Sex: Neutered Male

Date Type Staff History

B6

12/17/2016 L

B6

Endocrinology results from IDEXX Reference

Laboratory Requisition ID: 7916468F Posted Final

Test	Result	Reference Range
T4	B6	1.0 - 4.0

Asc: **B6**

Interpretive ranges:

<1.0 Low
1.0-4.0 Normal
>4.0 High
2.1-5.4 Therapeutic

B6

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative medl note, V: Vital signs

B6

Patient History Report

Client:
Phone:
Address:

B6

Patient: **B6**
Species: Canine
Age: **B6**
Color: BLACK/BROWN

Breed: Pinscher, Doberman
Sex: Neutered Male

Date Type Staff History

MCV	B6	59 - 76
MONOS		
NEUT SEG		
PLATELETS		143 - 448
RBC		5.39 - 8.70
RETIC CNT		
WBC		4.9 - 17.6
ABS BASO		0 - 100
ABS EOS		70 - 1490
ABS LYMPHS		1060 - 4950
ABS MONOS		130 - 1150
ABS NEUTS		2940 - 12670
ABS RET		10 - 110
Ascn: B6		
AUTOMATED CBC		

12/17/2016 L

B6

Chemistry results from IDEXX Reference Laboratory Requisition
ID: 7916468F Posted Final

Test	Result	Reference Range
ALB		2.7 - 3.9
ALKP		5 - 160
ALT		18 - 121
ANION GAP		11 - 26
AST		16 - 55
BICARB		13 - 27
BUN/UREA		9 - 31
Ca		8.4 - 11.8
Chloride		108 - 119
CHOL		131 - 345
CREA		0.5 - 1.5
DBIL		0.0 - 0.1
GGT		0 - 13
GLU		63 - 114
IBIL		0.0 - 0.2
PHOS		2.5 - 6.1
Potassium		4.0 - 5.4
TBIL		0.0 - 0.3
TP		5.5 - 7.5
Sodium		142 - 152
A/G Ratio		0.7 - 1.5
B/C Ratio		
Na/K Ratio		28 - 37
GLOB		2.4 - 4.0
CK		10 - 200
SDMA		0 - 14
Ascn: B6		
RE: 281 HEMOLYSIS INDEX N		

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative medl note, V: Vital signs

B6

Patient History Report

Client:
Phone:
Address:

B6

Patient: **B6**
Species: Canine
Age: **B6**
Color: BLACK/BROWN

Breed: Pinscher, Doberman
Sex: Neutered Male

Date Type Staff History

B6

12/14/2017 L

B6

Endocrinology results from IDEXX Reference
Laboratory Requisition ID: 108173801 Posted Final

Test	Result	Reference Range
T4	B6	1.0 - 4.0
Asc:	B6	

Interpretive ranges:

<1.0 Low
1.0-4.0 Normal
>4.0 High
2.1-5.4 Therapeutic

B6

12/14/2017 L

B6

Hematology results from IDEXX Reference
Laboratory Requisition ID: 108173801 Posted Final

Test	Result	Reference Range
BASO		
EOS		
HCT	B6	38.3 - 56.5
HGB		13.4 - 20.7
LYMPHS		
MCH		21.9 - 26.1
MCHC		32.6 - 39.2

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative medl note, V: Vital signs

B6

Patient History Report

Client Phone Address	B6	Patient: B6 Species: Canine Age: B6 Color: BLACK/BROWN	Breed: Pinscher, Doberman Sex: Neutered Male
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Date	Type	Staff	History
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ABS LYMPHS ABS MONOS ABS NEUTS ABS RET Ascn: B6	B6	1060 - 4950 130 - 1150 2940 - 12670 10 - 110
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AUTOMATED CBC

12/14/2017 L

B6

Chemistry results from IDEXX Reference Laboratory Requisition ID: 108173801 Posted Final

Test	Result	Reference Range
ALB		2.7 - 3.9
ALKP		5 - 160
ALT		18 - 121
ANION GAP		11 - 26
AST		16 - 55
BICARB		13 - 27
BUN/UREA		9 - 31
Ca		8.4 - 11.8
Chloride		108 - 119
CHOL		131 - 345
CREA		0.5 - 1.5
DBIL		0.0 - 0.1
GGT		0 - 13
GLU		63 - 114
IBIL		0.0 - 0.2
PHOS		2.5 - 6.1
Potassium		4.0 - 5.4
TBIL		0.0 - 0.3
TP		5.5 - 7.5
Sodium		142 - 152
A/G Ratio		0.7 - 1.5
B/C Ratio		
Na/K Ratio		28 - 37
GLOB		2.4 - 4.0
CK		10 - 200
SDMA		0 - 14

B6

Ascn: **B6**

RE: 281 HEMOLYSIS INDEX N

Index of N, 1+, 2+ exhibits no significant effect on chemistry values.

RE: 282 LIPEMIA INDEX N

Index of N, 1+, 2+ exhibits no significant effect on chemistry values.

BOTH SDMA AND CREATININE ARE WITHIN THE REFERENCE INTERVAL
which indicates
kidney function is likely good. Evaluate a complete

B:Billing, C:Med note, CB:Call back, CK:Check-in, CM:Communications, D:Diagnosis, DH:Declined to history, E:Examination, ES:Estimates, I:Departing instr, L:Lab result, M:Image cases, P:Prescription, PA:PVL Accepted, PB:problems, PP:PVL Performed, PR:PVL Recommended, R:Correspondence, T:Images, TC:Tentative medl note, V:Vital signs

B6

Patient History Report

Client:
Phone:
Address:

B6

Patient: **B6**
Species: Canine
Age: **B6**
Color: BLACK/BROWN

Breed: Pinscher, Doberman
Sex: Neutered Male

Date	Type	Staff	History
------	------	-------	---------

Interpretive ranges:

<1.0 Low
1.0-4.0 Normal
>4.0 High
2.1-5.4 Therapeutic

Dogs with no clinical signs of hypothyroidism and results within the normal reference range are likely euthyroid. Dogs with low T4

concentrations may be hypothyroid or euthyroid sick. Occasionally,

hypothyroid dogs can have T4 concentrations that are low normal. Dogs

with clinical signs of hypothyroidism and low or low normal T4

concentrations may be evaluated further by submission of free T4 and

canine TSH. A high T4 concentration in a clinically normal dog is

likely variation of normal; however elevations may occur secondary to

thyroid autoantibodies or rarely thyroid neoplasia. For dogs on

thyroid supplement, acceptable 4-6 hour post pill total T4 concentrations generally fall within the higher end or

slightly above

the reference range.

5/2/2018 L

B6

Hematology results from IDEXX Reference

Laboratory Requisition ID: 110976938 Posted Final

Test	Result	Reference Range	
BASO	B6		
EOS			
HCT		38.3 - 56.5	
HGB		13.4 - 20.7	
LYMPHS			
MCH		21.9 - 26.1	
MCHC		32.6 - 39.2	
MCV		59 - 76	
MONOS			
NEUT SEG			
PLATELETS		143 - 448	
RBC		5.39 - 8.70	
RETIC CNT			
WBC		4.9 - 17.6	
ABS BASO		0 - 100	
ABS EOS	70 - 1490		

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative med note, V: Vital signs

B6

Page 2 of 7

Date: 5/10/2018 11:54 AM

Patient History Report

Client:	B6	Patient:	B6	Breed:	Pinscher, Doberman
Phone:		Species:	Canine	Sex:	Neutered Male
Address:		Age:	B6	Color:	BLACK/BROWN

Date	Type	Staff	History
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5/2/2018 L

B6

Chemistry results from IDEXX Reference Laboratory Requisition ID: 110976938

Test	Result	Reference Range
ALB		2.7 - 3.9
ALKP		5 - 160
ALT		18 - 121
ANION GAP		11 - 26
AST		16 - 55
BICARB		13 - 27
BUN/UREA		9 - 31
Ca		8.4 - 11.8
Chloride		108 - 119
CHOL		131 - 345
CREA		0.5 - 1.5
DBIL		0.0 - 0.1
GGT		0 - 13
GLU		63 - 114
IBIL		0.0 - 0.2
PHOS		2.5 - 6.1
Potassium		4.0 - 5.4
TBIL		0.0 - 0.3
TP		5.5 - 7.5
Sodium		142 - 152
A/G Ratio		0.7 - 1.5
B/C Ratio		
Na/K Ratio		28 - 37
GLOB		2.4 - 4.0
CK		10 - 200
SDMA		0 - 14

B6

Asc: B6

RE: 281 HEMOLYSIS INDEX 1+
Index of N, 1+, 2+ exhibits no significant effect on chemistry values.

RE: 282 LIPEMIA INDEX 1+
Index of N, 1+, 2+ exhibits no significant effect on chemistry values.

BOTH SDMA AND CREATININE ARE WITHIN THE REFERENCE INTERVAL which indicates kidney function is likely good. Evaluate a complete urinalysis and confirm there is no other evidence of kidney disease.

5/2/2018 L

RB

Endocrinology results from IDEXX Reference Laboratory Requisition ID: 110976938

Test	Result	Reference Range
T4		1.0 - 4.0

Asc: B6

B: Billing, C: Med note, CB: Call back, CK: Check-in, CM: Communications, D: Diagnosis, DH: Declined to history, E: Examination, ES: Estimates, I: Departing instr, L: Lab result, M: Image cases, P: Prescription, PA: PVL Accepted, PB: Problems, PP: PVL Performed, PR: PVL Recommended, R: Correspondence, T: Images, TC: Tentative medl note, V: Vital signs

B6

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Chemistry Panel Results

Patient Id: B6	Patient's Name: B6	Client's Last Name: B6
Species: CANINE	Breed: DOBERMAN PINSCHER	Sex: MC DOB: B6
View/Edit Client Communications		RIS Exam History

			Completed Date	04/20/2018 14:35 Req id - 770774	08/14/2018 11:49 Req id - 792692
BUN	6 - 26	COB	MG/DL		
CREA	.7 - 1.5	COB	MG/DL		
PHOS	2.5 - 5.6	COB	MG/DL		
CA	9.4 - 11.4	COB	MG/DL		
TP	5.2 - 7.3	COB	G/DL		
ALB	3 - 3.9	COB	G/DL		
GLOB	1.7 - 3.8	COB	G/DL		
A/G	.9 - 1.8	COB			
NA	140 - 156	COB	MMOL/L		
K	4 - 5.3	COB	MMOL/L		
CL	108 - 122	COB	MMOL/L		
HCO3	18 - 26	COB	MMOL/L		
AGAP	11.2 - 19.9	COB			
NA/K	27.7 - 35.9	COB			
ICT		COB			
HEMO		COB			
LIPE		COB			

B6

[View Results in Excel](#) (When prompted - Select **Save** first then select **Open** and then **Yes** to open the file.)

[Return to Patient Search](#)

B6