

Report Details - EON-345822

ICSR: 2040525
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2018-01-22 17:19:17 EST

Reported Problem:

Problem Description: [B6] was presented for evaluation of cough, labored breathing, multiple episodes of collapse, cardiomegaly, and suspected congestive heart failure. Congestive heart failure was confirmed with thoracic radiographs and echocardiogram revealed dilated cardiomyopathy.

Date Problem Started: 12/30/2017

Concurrent Medical Problem: Yes

Pre Existing Conditions: [B6]

Outcome to Date: Better/Improved/Recovering

Product Information:

Product Name: California Natural Grain-Free Kangaroo and Red Lentils Recipe

Product Type: Pet Food

Lot Number:

Package Type: BAG

Purchase Date: 01/02/2018

Possess Unopened Product: No

Possess Opened Product: Yes

Product Use Information:

Description: [B6] had been eating this dog food since she first displaced signs of [B6] as a puppy and food allergy was considered as a potential contributor.

Last Exposure Date: 01/10/2018

Time Interval between Product Use and Adverse Event: 6 Years

Product Use Stopped After the Onset of the Adverse Event: Yes

Adverse Event Abate After Product Stop: Unknown

Product Use Started Again: No

Perceived Relatedness to Adverse Event: Probably related

Other Foods or Products Given to the Animal During This Time Period: Yes

Manufacturer /Distributor Information:

Purchase Location Information:

Animal Information:	Name:	B6		
	Type Of Species:	Dog		
	Type Of Breed:	Mixed (Dog)		
	Gender:	Female		
	Reproductive Status:	Neutered		
	Weight:	25.1 Kilogram		
	Age:	6 Years		
	Assessment of Prior Health:	Good		
	Number of Animals Given the Product:	4		
	Number of Animals Reacted:	4		
	Owner Information:	Owner Information provided:	Yes	
		Contact:	Name:	B6
			Phone:	B6
			Email:	
	Address:	B6		
United States				
Healthcare Professional Information:	Practice Name:	B6		
	Contact:	Name:	B6	
		Phone:	B6	
		Other Phone:		
Email:				
Address:	B6			
	United States			
Sender Information:	Name:			
	Address:	B6		
		United States		
	Contact:	Phone:	B6	
		Other Phone:		
		Email:		
Permission To Contact Sender:	Yes			
Preferred Method Of Contact:	Phone			
Reported to Other Parties:	Other			
Additional Documents:	Attachment:	Medical record.pdf		
	Description:	Medical record and echo report		
	Type:	Medical Records		

Attachment:	Taurine level.pdf
Description:	Taurine level
Type:	Laboratory Report
Attachment:	Listserve on kangaroo and lentil diets.pdf
Description:	Discussion amongst veterinary cardiologists of dilated cardiomyopathy in patients eating either kangaroo and lentil or vegan diets with lentils
Type:	Other

Report Details - EON-345833

ICSR: 2040529
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2018-01-22 18:21:03 EST

Reported Problem:

Problem Description: B6 had been diagnosed with a new heart murmur a couple of months earlier, then developed difficulty breathing and cough and was diagnosed with congestive heart failure. Echocardiogram showed evidence of dilated cardiomyopathy and chronic degenerative valve disease. B6 B6
 FDA ICSR ID 2040528

Date Problem Started: 08/18/2017

Concurrent Medical Problem: Yes

Pre Existing Conditions: B6

Outcome to Date: Died Euthanized

Date of Death: B6

Product Information:

Product Name: California Natural Grain-Free Kangaroo and Red Lentils Recipe

Product Type: Pet Food

Lot Number:

Package Type: BAG

Possess Unopened Product: No

Possess Opened Product: No

Product Use Information:

Description: B6 had been fed this product for years for management of food allergy.

Last Exposure Date: B6

Product Use Stopped After the Onset of the Adverse Event: Yes

Adverse Event Abate After Product Stop: No

Product Use Started Again: No

Perceived Relatedness to Adverse Event: Probably related

Manufacturer /Distributor Information:

Purchase Location Information:

Animal Information:

Name: B6

Type Of Species: Dog

Type Of Breed: Retriever - Labrador

Gender: Female

Reproductive Status: Neutered

Weight: 25.6 Kilogram

Age: 5 Years

	Assessment of Prior Health:	Excellent																
	Number of Animals Given the Product:	4																
	Number of Animals Reacted:	4																
	Owner Information:	<table border="1"> <tr> <td>Owner Information provided:</td> <td>Yes</td> </tr> <tr> <td>Contact:</td> <td> <table border="1"> <tr> <td>Name:</td> <td>B6</td> </tr> <tr> <td>Phone:</td> <td>B6</td> </tr> <tr> <td>Other Phone:</td> <td>B6</td> </tr> <tr> <td>Email:</td> <td></td> </tr> </table> </td> </tr> <tr> <td>Address:</td> <td> <table border="1"> <tr> <td>B6</td> </tr> <tr> <td>United States</td> </tr> </table> </td> </tr> </table>	Owner Information provided:	Yes	Contact:	<table border="1"> <tr> <td>Name:</td> <td>B6</td> </tr> <tr> <td>Phone:</td> <td>B6</td> </tr> <tr> <td>Other Phone:</td> <td>B6</td> </tr> <tr> <td>Email:</td> <td></td> </tr> </table>	Name:	B6	Phone:	B6	Other Phone:	B6	Email:		Address:	<table border="1"> <tr> <td>B6</td> </tr> <tr> <td>United States</td> </tr> </table>	B6	United States
Owner Information provided:	Yes																	
Contact:	<table border="1"> <tr> <td>Name:</td> <td>B6</td> </tr> <tr> <td>Phone:</td> <td>B6</td> </tr> <tr> <td>Other Phone:</td> <td>B6</td> </tr> <tr> <td>Email:</td> <td></td> </tr> </table>	Name:	B6	Phone:	B6	Other Phone:	B6	Email:										
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Sender Information:	Name:	B6																
	Address:	<table border="1"> <tr> <td>B6</td> </tr> <tr> <td>United States</td> </tr> </table>	B6	United States														
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	Contact:	<table border="1"> <tr> <td>Phone:</td> <td>B6</td> </tr> <tr> <td>Other Phone:</td> <td></td> </tr> <tr> <td>Email:</td> <td></td> </tr> </table>	Phone:	B6	Other Phone:		Email:											
Phone:	B6																	
Other Phone:																		
Email:																		
	Permission To Contact Sender:	Yes																
	Preferred Method Of Contact:	Phone																
	Reported to Other Parties:	Other																
Additional Documents:	Attachment:	cardio0010.pdf																
	Description:	Initial echo report and emergency visit report at which time euthanasia was elected																
	Type:	Medical Records																

Report Details - EON-345835	
ICSR:	2040532
Type Of Submission:	Initial
Report Version:	FPSR.FDA.PETF.V.V1
Type Of Report:	Adverse Event (a symptom, reaction or disease associated with the product)
Reporting Type:	Voluntary
Report Submission Date:	2018-01-22 18:42:17 EST
Reported Problem:	Problem Description: [B6] had been presented to his regular veterinarian for a week long history of cough on August 22, 2017. Radiographs were taken and [B6] was initially placed on [B6] for presumed [B6]. Radiographs were reviewed by a radiologist who revised the diagnosis to congestive heart failure and [B6] were added. I evaluated [B6] on September 5, 2017 and diagnosed him with dilated cardiomyopathy with congestive heart failure.
	Date Problem Started: 08/15/2017
	Concurrent Medical Problem: No
	Outcome to Date: Better/Improved/Recovering
Product Information:	Product Name: Zignature Kangaroo Limited Ingredient Formula Dry Dog Food
	Product Type: Pet Food
	Lot Number:
	Package Type: BAG
	Possess Unopened Product: No
	Possess Opened Product: No
	Product Use Information:
	Description: [B6] had been fed this diet since he was one year of age because it was recommended by [B6]. He was also given grain free treats, carrots and apples.
	Time Interval between Product Use and Adverse Event: 3 Years
	Product Use Stopped After the Onset of the Adverse Event: Yes
Product Use Started Again: No	
Perceived Relatedness to Adverse Event: Probably related	
Manufacturer /Distributor Information:	
Purchase Location Information:	
Animal Information:	Name: [B6]
	Type Of Species: Dog
	Type Of Breed: Spaniel - Cocker American
	Gender: Male
	Reproductive Status: Neutered
	Weight: 15.5 Kilogram
	Age: 4 Years
Assessment of Prior Health: Excellent	

	Number of Animals Given the Product:	4
	Number of Animals Reacted:	4
	Owner Information:	Owner Information provided: Yes Contact: Name: B6 Phone: B6 Other Phone: B6 Email: B6 Address: B6 United States
	Healthcare Professional Information:	Practice Name: B6 Contact: Name: B6 Phone: B6 Other Phone: B6 Email: B6 Address: B6 United States
Sender Information:	Name:	B6
	Address:	B6 United States
	Contact:	Phone: B6 Other Phone: B6 Email: B6
	Permission To Contact Sender:	Yes
	Preferred Method Of Contact:	Phone
	Reported to Other Parties:	Other
Additional Documents:	Attachment:	cardio0011.pdf
	Description:	Initial visit with echo report and most recent recheck medical record
	Type:	Medical Records
	Attachment:	cardio0012.pdf
	Description:	Taurine level
	Type:	Laboratory Report

Report Details - EON-345965

ICSR: 2040808
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2018-01-25 12:18:44 EST

Reported Problem:

Problem Description: At his scheduled visit to my clinic, thoracic radiographs showed generalized cardiomegaly which had been progressive compared to prior chest radiographs from his regular veterinarian but there was no evidence of cardiogenic edema. Echocardiogram was performed which showed dilated cardiomyopathy. Fundic exam was abnormal with a suspected [B6]. Diet history revealed that [B6] was eating a kangaroo based diet. At this time the patient was continued on the [B6] [B6] was discontinued, and [B6] (2.5mg a.m., 1.25mg p.m.) [B6] (1.25mg BID), and taurine (500mg BID) were started. Taurine was discontinued after a normal taurine level was received. Cough persisted despite these changes and a course of [B6] was prescribed (50mg BID x 10 days). The cough improved significantly but did not completely resolve so the [B6] was continued an additional 14 days. The dog has since been lost to follow-up. I have attempted to contact the owner and am waiting for a response. I did contact the referring veterinarian and to their knowledge the dog is still alive.

Date Problem Started: 04/24/2017

Concurrent Medical Problem: Yes

Pre Existing Conditions: [B6] was presented to me for evaluation of lethargy and progressive cough of 6 months duration. He had been treated with a cough suppressant [B6] (1/2 tab PO BID) and [B6] (5mg once daily) prior to presentation with no response.

Outcome to Date: Unknown

Product Information:

Product Name: limited ingredient diet with kangaroo as protein source - manufacturer not specified in written history (we have attempted to contact the owner but they do not return phone calls)

Product Type: Pet Food

Lot Number:

Possess Unopened Product: Unknown

Possess Opened Product: Unknown

Storage Conditions: Unknown

Product Use Information:

Description:	History in medical record describes diet but does not indicate duration of administration.
Product Use Stopped After the Onset of the Adverse Event:	No
Perceived Relatedness to Adverse Event:	Probably related

Manufacturer /Distributor Information:

Purchase Location Information:

Animal Information:

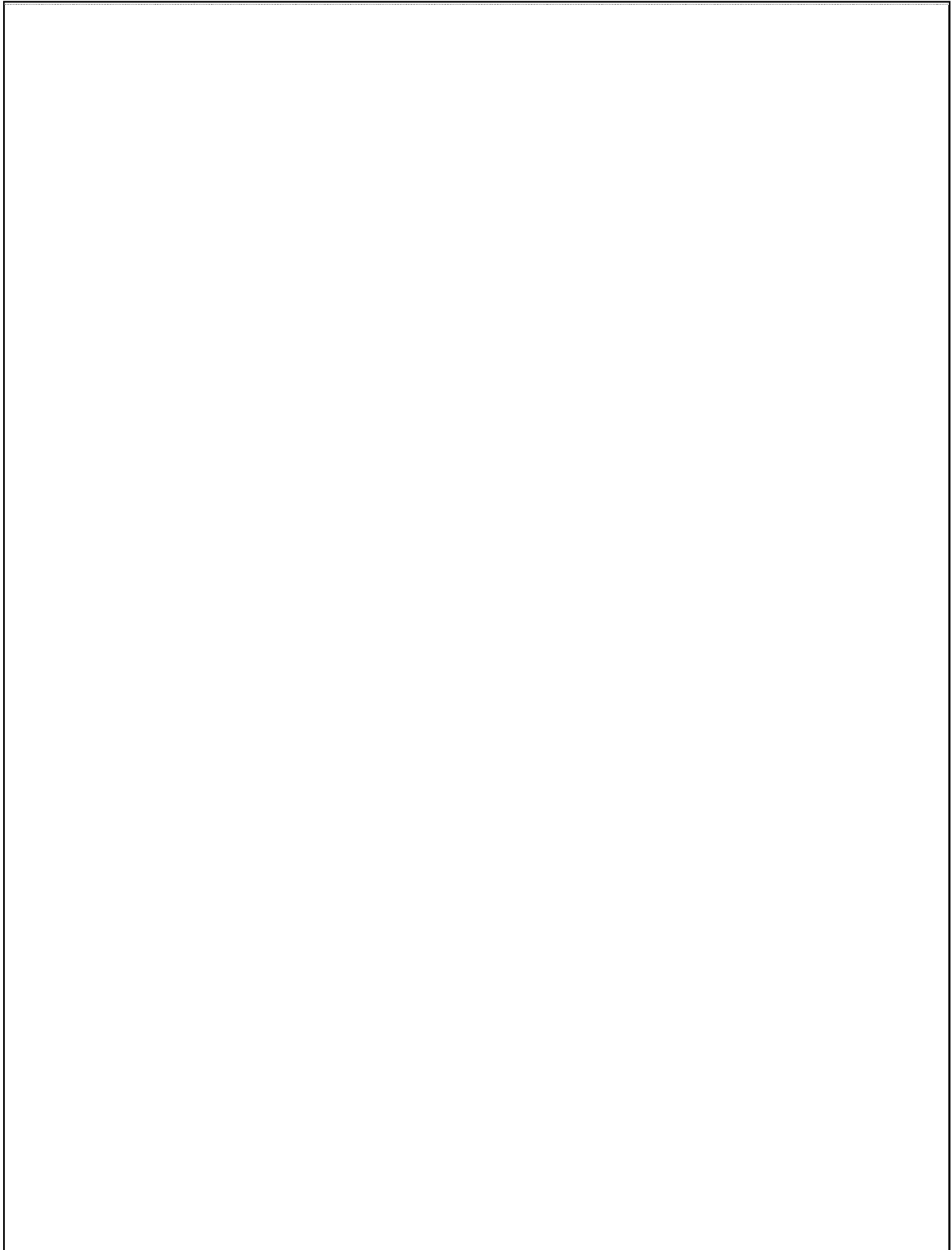
Name: [B6]

Type Of Species: Dog

Type Of Breed: Shih Tzu

Gender: Male

	Reproductive Status: Neutered
	Weight: 6.08 Kilogram
	Age: 8 Years
	Assessment of Prior Health: Good
	Number of Animals Given the Product: 5
	Number of Animals Reacted: 5
	Owner Information:
	Owner Information provided: Yes
	Contact: Name: [Redacted] B6
	Phone: [Redacted]
	Other Phone: [Redacted]
	Email: [Redacted]
	Address: [Redacted] B6
	United States
	Healthcare Professional Information:
	Practice Name: [Redacted] B6
	Contact: Name: [Redacted] B6
	Phone: [Redacted]
	Other Phone: [Redacted]
	Email: [Redacted]
	Address: [Redacted] B6
	United States
Sender Information:	Name: [Redacted] B6
	Address: [Redacted] B6
	United States
	Contact: Phone: [Redacted] B6
	Other Phone: [Redacted]
	Email: [Redacted]
	Permission To Contact Sender: Yes
	Preferred Method Of Contact: Email
	Reported to Other Parties: Other
Additional Documents:	Attachment: cardio0030.pdf
	Description: Labwork including CBC, profile, taurine level and radiology report
	Type: Laboratory Report
	Attachment: cardio0029.pdf
	Description: Medical records from initial and follow-up visit
	Type: Medical Records



Report Details - EON-349594

ICSR:	2043914
Type Of Submission:	Initial
Report Version:	FPSR.FDA.PETF.V.V1
Type Of Report:	Adverse Event (a symptom, reaction or disease associated with the product)
Reporting Type:	Voluntary
Report Submission Date:	2018-03-16 08:19:04 EDT

Reported Problem:	Problem Description:	Suspected that Acana Lamb and Apple Singles Formula diet provides insufficient levels of taurine, contributing to development of [B6] dilated cardiomyopathy. [B6] presented to his primary care veterinarian October 21, 2017 for progressive panting at night over the past 3-4 months. Chest radiographs revealed cardiomegaly and congestive heart failure (CHF). We examined [B6] on 10/25/17 and was diagnosed with dilated cardiomyopathy (DCM) and CHF. A whole blood taurine level was tested on 10/25/17 and the result was low [B6] reference range 200-350 nmol/ml). This is suspected to be due to dietary deficiency. [B6] has been on Acana's limited-ingredient Lamb and Apple grain-free diet for the entirety of his life for the management of [B6]. After diagnosis of DCM and CHF, treatment included [B6] supplementation with taurine and l-carnitine. His diet was also switched from Acana Lamb and Apple diet to a commercial veterinary prescription diet (Hill's i/d). Since starting medications and supplementation with taurine/l-carnitine and changing the diet, he has had remarkable improvement in his cardiac size and function. He is no longer at risk for CHF and is being tapered off the [B6]. His systolic function is near normal. We do not see these improvements with medical therapy alone - only with taurine deficiency. - Normal left atrial size - previously severe - Moderate left ventricular enlargement - mildly improved - Mild to moderate right atrial and right ventricular dilation - improved - Low normal, improved decrease in systolic function - previously severe decrease
	Date Problem Started:	10/25/2017
	Concurrent Medical Problem:	No
	Outcome to Date:	Better/Improved/Recovering

Product Information:	Product Name:	Acana Lamb & Apple Singles Formula Dog Food		
	Product Type:	Pet Food		
	Lot Number:			
	Package Type:	BAG		
	Purchase Date:	09/01/2017		
	Possess Unopened Product:	Unknown		
	Possess Opened Product:	Unknown		
	Product Use Information:	Description:	This product was fed to the animal as a main diet source.	
		Product Use Stopped After the Onset of the Adverse Event:	Yes	
		Adverse Event Abate After Product Stop:	Yes	
Product Use Started Again:		No		
Perceived Relatedness to Adverse Event:		Probably related		
Other Foods or Products Given to the Animal During This Time Period:	Yes			

	Manufacturer /Distributor Information:	Name:	Acana - Champion Petfoods LP			
		Type(s):	Manufacturer			
		Address:	11403 186 St NW Edmonton Alberta T5S 2W6 Canada			
		Contact:	Phone:	780-784-0300		
			Web Address:	https://acana.com		
	Possess One or More Labels from This Product:	Yes				
	Purchase Location Information:					
Animal Information:	Name:	B6				
	Type Of Species:	Dog				
	Type Of Breed:	Retriever - Golden				
	Gender:	Male				
	Reproductive Status:	Neutered				
	Weight:	29.6 Kilogram				
	Age:	10 Years				
	Assessment of Prior Health:	Excellent				
	Number of Animals Given the Product:	1				
	Number of Animals Reacted:	1				
	Owner Information:	Owner Information provided:	Yes			
		Contact:	Name:	B6		
			Phone:			
			Email:			
		Address:	B6			United States
Healthcare Professional Information:	Practice Name:	B6				
	Contact:	Name:	B6			
		Phone:				
		Email:				
	Address:	B6			United States	
	Practice Name:	B6				
	Contact:	Name:	B6			
Phone:						
Email:						
Address:	B6					

			B6
		Type of Veterinarian:	Referred veterinarian
		Date First Seen:	10/25/2017
		Permission to Release Records to FDA:	Yes
Sender Information:	Name:	B6	
	Address:	B6	
		United States	
	Contact:	Phone:	B6
		Email:	B6
	Permission To Contact Sender:	Yes	
Preferred Method Of Contact:	Email		
Reported to Other Parties:	Other		
Additional Documents:	Attachment:	B6	Echo 10-25-17.pdf
	Description:	Echocardiogram 10-25-2017	
	Type:	Echocardiogram	
	Attachment:	B6	BW Taurine 10-26-17.pdf
	Description:	Taurine Level 10-26-2017	
	Type:	Laboratory Report	
	Attachment:	B6	Echo Data 3-9-18.pdf
	Description:	Echocardiogram 3-9-2018	
	Type:	Echocardiogram	
	Attachment:	B6	Hx PDVM from Jan2017.pdf
	Description:	Primary care records from January 2017	
	Type:	Medical Records	
	Attachment:	B6	Echo 11-21-17.pdf
	Description:	Echocardiogram 11-21-2017	
	Type:	Echocardiogram	

Report Details - EON-350158

ICSR: 2044632
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2018-03-27 15:12:36 EDT

Reported Problem:

Problem Description: At the time of diagnosis (10/31/17), [B6] was a 13 year old female spayed Labrador retriever who had been maintained on a Zignature Kangaroo formula. She presented with a history of a progressive cough which, prior to presentation, became productive and she coughed up a small volume of pink foam (possible pulmonary edema). On examination she had a 2/6 left apical systolic heart murmur and on echo diagnosed with advanced dilated cardiomyopathy with severe left ventricular dilation, moderate to severe left ventricular systolic dysfunction, and moderate to severe left atrial dilation. Thoracic radiographs were suspicious for early congestive heart failure. A whole blood taurine level was submitted and was low at [B6]. She was treatment with [B6] taurine and L-carnitine and her diet was changed to Royal Canin Early Cardiac. At her recheck in 2/26/18, [B6] heart had improved significantly with now mild dilated cardiomyopathy with normalized left atrial dimensions, mild left ventricular dilation and low normal left ventricular systolic function. The [B6] was able to be discontinued at this time.

Date Problem Started: 10/31/2017

Concurrent Medical Problem: No

Outcome to Date: Better/Improved/Recovering

Product Information:

Product Name: Zignature Kangaroo Formula

Product Type: Pet Food

Lot Number:

Package Type: BAG

Possess Unopened Product: Unknown

Possess Opened Product: Unknown

Product Use Information:

Product Use Stopped After the Onset of the Adverse Event:	Yes
Adverse Event Abate After Product Stop:	Yes
Product Use Started Again:	No
Perceived Relatedness to Adverse Event:	Probably related
Other Foods or Products Given to the Animal During This Time Period:	Unknown

Manufacturer /Distributor Information:

Name:	Pets Global - Zignature
Type(s):	Manufacturer
Address:	28334 Industry Dr Valencia California 91355 United States

		Contact:	Phone: (661) 309-1235
			Web Address: www.zignature.com
		Possess One or More Labels from This Product:	Yes
	Purchase Location Information:		
Animal Information:	Name:	B6	
	Type Of Species:	Dog	
	Type Of Breed:	Retriever - Labrador	
	Gender:	Female	
	Reproductive Status:	Neutered	
	Weight:	33.18 Kilogram	
	Age:	13 Years	
	Assessment of Prior Health:	Good	
	Number of Animals Given the Product:	1	
	Number of Animals Reacted:	1	
	Owner Information:	Owner Information provided:	Yes
		Contact:	Name:
			Phone:
			Other Phone:
			Email:
		Address:	B6
			United States
	Healthcare Professional Information:	Practice Name:	B6
		Contact:	Name:
			Phone:
			Email:
		Address:	B6
		Practice Name:	B6
		Contact:	Name:
			Phone:
			Email:
		Address:	B6
		Type of Veterinarian:	Referred veterinarian
		Permission to Release Records	Yes

to FDA:

Sender Information:

Name:

Address:

B6

United States

Contact:

Phone:

Email:

B6

Permission To Contact Sender: Yes

Preferred Method Of Contact: Email

Reported to Other Parties: Other

Additional Documents:

Attachment:

B6

Echo Report 2017-10-31.pdf

Description: Echocardiogram 10-31-2017

Type: Echocardiogram

Attachment:

B6

Echo Report 2018-02-26.pdf

Description: Echocardiogram 2-26-2018

Type: Echocardiogram

Attachment:

B6

Taurine Level 2017-11-03.pdf

Description: **B6** Taurine Level 11-3-2017

Type: Laboratory Report

Report Details - EON-350263

ICSR: 2044821
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2018-03-30 15:41:47 EDT

Reported Problem:

Problem Description: [B6] is an 8 year old intact male Bull Terrier who was first diagnosed with severe degenerative valve disease with moderate decrease in contractility on 8/21 /17. At that time, he was started on [B6] supplementation was recommended but not started. On [B6] he presented to the emergency service for a sudden increase in respiratory rate and effort and was hospitalized for congestive heart failure. Echo findings on [B6] included progressive valve disease and severe, progressive decrease in contractility, the latter of which may either be a component of dilated cardiomyopathy vs secondary to [B6] grain free diet (Nature's Recipe Salmon and Yam). Clinically, [B6] has been tiring more quickly recently. He has had weight loss (3 kg since 8/2017) despite a good appetite. Prior to his [B6] presentation, he had a 2-3 week history of collapsing/fainting episodes, in which he would go limp and paddle - no loss of bowels. Health history includes [B6] previously on [B6] - but otherwise no major illnesses or injuries. I have recommended adjustments to [B6] medications as well as [B6] supplementation; he will continue the Nature's Recipe Salmon and Yam diet due to significant [B6] when changing the diet.

Date Problem Started: 08/21/2017

Concurrent Medical Problem: Yes

Pre Existing Conditions: History of [B6] managed with [B6] and Nature's Recipe diet. History of [B6] July 2017.

Outcome to Date: Worse/Declining/Deteriorating

Product Information:

Product Name: Grain Free Easy to Digest Salmon Sweet Potato & Pumpkin Recipe

Product Type: Pet Food

Lot Number:

Package Type: BAG

Possess Unopened Product: No

Possess Opened Product: No

Product Use Information:

Description:	Used for daily feeding as main diet.
Last Exposure Date:	03/30/2018
Product Use Stopped After the Onset of the Adverse Event:	No
Perceived Relatedness to Adverse Event:	Probably related

Manufacturer /Distributor Information:

Name:	J.M. Smucker Co. (formerly Big Heart Pet Brands)
Type(s):	Manufacturer
Address:	1 Strawberry Lane Orrville Ohio 44667-9555 United States
Contact:	Phone: (888) 550-9555 Web: https://www.naturesrecipe.com/dog-recipes

			Address: /grain-free/salmon-sweet-potato-and-pumpkin-recipe	
	Possess One or More Labels from This Product:	Yes		
	Purchase Location Information:			
Animal Information:	Name:	B6		
	Type Of Species:	Dog		
	Type Of Breed:	Terrier - Bull		
	Gender:	Male		
	Reproductive Status:	Intact		
	Weight:	26.3 Kilogram		
	Age:	8 Years		
	Assessment of Prior Health:	Good		
	Number of Animals Given the Product:	1		
	Number of Animals Reacted:	1		
	Owner Information:	Owner Information provided:	No	
	Healthcare Professional Information:	Practice Name:	B6	
		Contact: Name:	B6	
Phone:		B6		
Email:		B6		
Address:		B6 United States		
Sender Information:	Name:	B6		
	Address:	B6 United States		
	Contact: Phone:	B6		
	Email:	B6		
	Permission To Contact Sender:	Yes		
	Preferred Method Of Contact:	Email		
	Reported to Other Parties:	Other		
Additional Documents:	Attachment:	B6	Echo: B6 pdf	
	Description:	Echo Report B6		
	Type:	Echocardiogram		
	Attachment:	B6	Echo Data B6 pdf	
	Description:	Echo Data 8/22/2018		
	Type:	Echocardiogram		

Attachment:	B6	Echo	B6	pdf
Description:	Echocardiogram Report B6			
Type:	Echocardiogram			
Attachment:	B6	Echo Data	B6	pdf
Description:	Echo Data B6			
Type:	Echocardiogram			

Report Details - EON-350359																
ICSR:	2044946															
Type Of Submission:	Initial															
Report Version:	FPSR.FDA.PETF.V.V1															
Type Of Report:	Adverse Event (a symptom, reaction or disease associated with the product)															
Reporting Type:	Voluntary															
Report Submission Date:	2018-04-02 15:19:51 EDT															
Reported Problem:	Problem Description: A heart murmur was auscultated on a routine exam and patient was diagnosed on 2/26/18 with moderate dilated cardiomyopathy - ruleout idiopathic vs. taurine /amino acid responsive - with moderately decreased left ventricular contractility. Patient is on a grain free diet - Nature's Recipe Salmon and Sweet Potato. It is suspected that some grain free diets provide insufficient levels of taurine, contributing to the development of dilated cardiomyopathy. At presentation, [B6] had no cough, normal appetite and attitude; no exercise intolerance. Medication management and [B6] supplementation was recommended. She will be rechecked in June 2018.															
	Date Problem Started: 02/26/2018															
	Concurrent Medical Problem: Yes															
	Pre Existing Conditions: History of [B6] [B6]															
	Outcome to Date: Unknown															
Product Information:	Product Name: Grain Free Easy to Digest Salmon, Sweet Potato, & Pumpkin Recipe															
	Product Type: Pet Food															
	Lot Number:															
	Package Type: BAG															
	Product Use Information: <table border="1"> <tr> <td>Description:</td> <td>Daily as main diet</td> </tr> <tr> <td>Perceived Relatedness to Adverse Event:</td> <td>Probably related</td> </tr> </table>	Description:	Daily as main diet	Perceived Relatedness to Adverse Event:	Probably related											
	Description:	Daily as main diet														
	Perceived Relatedness to Adverse Event:	Probably related														
	Manufacturer /Distributor Information: <table border="1"> <tr> <td>Name:</td> <td>The J.M. Smucker Co.</td> </tr> <tr> <td>Type(s):</td> <td>Manufacturer</td> </tr> <tr> <td>Address:</td> <td>1 Strawberry Lane Orville Ohio 44667 United States</td> </tr> <tr> <td>Contact:</td> <td> <table border="1"> <tr> <td>Phone:</td> <td>(888) 550-9555</td> </tr> <tr> <td>Web Address:</td> <td>www.naturesrecipe.com</td> </tr> </table> </td> </tr> <tr> <td>Possess One or More Labels from This Product:</td> <td>Yes</td> </tr> </table>	Name:	The J.M. Smucker Co.	Type(s):	Manufacturer	Address:	1 Strawberry Lane Orville Ohio 44667 United States	Contact:	<table border="1"> <tr> <td>Phone:</td> <td>(888) 550-9555</td> </tr> <tr> <td>Web Address:</td> <td>www.naturesrecipe.com</td> </tr> </table>	Phone:	(888) 550-9555	Web Address:	www.naturesrecipe.com	Possess One or More Labels from This Product:	Yes	
	Name:	The J.M. Smucker Co.														
	Type(s):	Manufacturer														
Address:	1 Strawberry Lane Orville Ohio 44667 United States															
Contact:	<table border="1"> <tr> <td>Phone:</td> <td>(888) 550-9555</td> </tr> <tr> <td>Web Address:</td> <td>www.naturesrecipe.com</td> </tr> </table>	Phone:	(888) 550-9555	Web Address:	www.naturesrecipe.com											
Phone:	(888) 550-9555															
Web Address:	www.naturesrecipe.com															
Possess One or More Labels from This Product:	Yes															
Purchase Location Information:																
Animal Information: <table border="1"> <tr> <td>Name:</td> <td></td> </tr> <tr> <td>Type Of Species:</td> <td>Dog</td> </tr> <tr> <td>Type Of Breed:</td> <td>Spaniel - Cocker American</td> </tr> <tr> <td>Gender:</td> <td>Female</td> </tr> <tr> <td>Reproductive Status:</td> <td>Neutered</td> </tr> <tr> <td>Weight:</td> <td>11.7 Kilogram</td> </tr> <tr> <td>Age:</td> <td>13 Years</td> </tr> <tr> <td>Assessment of Prior</td> <td>Good</td> </tr> </table>	Name:		Type Of Species:	Dog	Type Of Breed:	Spaniel - Cocker American	Gender:	Female	Reproductive Status:	Neutered	Weight:	11.7 Kilogram	Age:	13 Years	Assessment of Prior	Good
Name:																
Type Of Species:	Dog															
Type Of Breed:	Spaniel - Cocker American															
Gender:	Female															
Reproductive Status:	Neutered															
Weight:	11.7 Kilogram															
Age:	13 Years															
Assessment of Prior	Good															

	Health: Number of Animals Given the Product: 1 Number of Animals Reacted: 1 Owner Information: Owner Information provided: No
Healthcare Professional Information:	Practice Name: B6 Contact: Name: B6 Phone: B6 Email: B6 Address: B6 United States Practice Name: B6 Contact: Name: B6 Phone: B6 Email: B6 Address: B6 United States Type of Veterinarian: Referred veterinarian Date First Seen: 02/26/2018 Permission to Release Records to FDA: Yes
	Sender Information: Name: B6 Address: B6 United States Contact: Phone: B6 Email: B6 Permission To Contact Sender: Yes Preferred Method Of Contact: Email Reported to Other Parties: Other
	Additional Documents: Attachment: Echo Report 2-26-2018.pdf Description: Echo Report 2/26/18 Type: Echocardiogram Attachment: Echo Data 2-26-18.pdf Description: Echo Data 2/26/18 Type: Echocardiogram

Report Details - EON-350487							
ICSR:	2045119						
Type Of Submission:	Initial						
Report Version:	FPSR.FDA.PETF.V.V1						
Type Of Report:	Adverse Event (a symptom, reaction or disease associated with the product)						
Reporting Type:	Voluntary						
Report Submission Date:	2018-04-04 16:10:23 EDT						
Reported Problem:	Problem Description: [B6] has a history of cough - she was initially treated for kennel cough. Developed [B6] and was evaluated by cardiology practice on 3/19/18. Diagnosed with advanced dilated cardiomyopathy, atrial fibrillation with rapid ventricular response rate and right-sided congestive heart failure with [B6]. Started on medical therapy and [B6] supplementation - will recheck echo in 4-5 months. Diet is Taste of the Wild Grain Free - rotates through all varieties except for those containing chicken. There is concern that the diet provides insufficient levels of taurine, contributing to the development of [B6] dilated cardiomyopathy.						
	Date Problem Started: 03/19/2018						
	Concurrent Medical Problem: Yes						
	Pre Existing Conditions: Recent treatment for possible kennel cough with course of [B6]. Otherwise previously healthy						
	Outcome to Date: Better/Improved/Recovering						
Product Information:	Product Name: Taste of the Wild Pacific Stream Canine Formula with Smoked Salmon						
	Product Type: Pet Food						
	Lot Number:						
	Package Type: BAG						
	Product Use Information: <table border="1"> <tr> <td>Description:</td> <td>Daily as main diet</td> </tr> <tr> <td>Product Use Stopped After the Onset of the Adverse Event:</td> <td>Unknown</td> </tr> <tr> <td>Perceived Relatedness to Adverse Event:</td> <td>Probably related</td> </tr> </table>	Description:	Daily as main diet	Product Use Stopped After the Onset of the Adverse Event:	Unknown	Perceived Relatedness to Adverse Event:	Probably related
	Description:	Daily as main diet					
	Product Use Stopped After the Onset of the Adverse Event:	Unknown					
Perceived Relatedness to Adverse Event:	Probably related						
Manufacturer /Distributor Information:							
Purchase Location Information:							
Animal Information:	Name: [B6]						
	Type Of Species: Dog						
	Type Of Breed: Hound - Afghan						
	Gender: Female						
	Reproductive Status: Neutered						
	Weight: 32.4 Kilogram						
	Age: 11 Years						
	Assessment of Prior Health: Excellent						
	Number of Animals Given the Product: 1						
	Number of Animals Reacted: 1						
	Owner Information: <table border="1"> <tr> <td>Owner Information provided:</td> <td>No</td> </tr> </table>	Owner Information provided:	No				
Owner Information provided:	No						
Healthcare Professional Practice Name: [B6]							

	Information:	Contact:	Name:	B6
			Phone:	B6
			Email:	B6
		Address:	B6	
		United States		
		Type of Veterinarian:	Referred veterinarian	
		Permission to Release Records to FDA:	Yes	

Sender Information:	Name:	B6		
	Address:	B6		
		United States		
	Contact:	Phone:	B6	
		Email:	B6	
	Permission To Contact Sender:	Yes		
Preferred Method Of Contact:	Email			
Reported to Other Parties:	Other			

Additional Documents:	Attachment:	B6	CG 3-13-2018.pdf
	Description:	ECG 3/13/2018	
	Type:	Other	
	Attachment:	B6	Echo Report 3-19-2018.pdf
	Description:	Echo Report 3/19/2018	
	Type:	Echocardiogram	
	Attachment:	B6	ECG 4-2-2018.pdf
	Description:	ECG 4/2/2018	
	Type:	Other	
	Attachment:	B6	Echo Data 3-19-2018.pdf
	Description:	Echo Data 3/19/2018	
	Type:	Echocardiogram	

Report Details - EON-351031

ICSR: 2045676
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2018-04-12 13:26:01 EDT

Reported Problem:

Problem Description: Feb 23, 2018 Patient presented to the cardiology service at [B6] [B6] for [B6]. He was diagnosed with dilated cardiomyopathy and left side congestive heart failure. Whole blood taurine level was [B6] (ref 200-350, critical level <150). At the time, patient consuming Zignature Kangaroo Formula and was advised to change.

Date Problem Started: 02/22/2018

Concurrent Medical Problem: Yes

Pre Existing Conditions: History of [B6] on [B6] 10mg every other day since 2015 following [B6]

Outcome to Date: Stable

Product Information:

Product Name: Zignature Kangaroo Formula

Product Type: Pet Food

Lot Number:

Package Type: BAG

Possess Unopened Product: No

Possess Opened Product: No

Product Use Information:

Description: Owner feeding for 2-3 years prior to diagnosis.

Last Exposure Date: 03/01/2018

Time Interval between Product Use and Adverse Event: 3 Years

Product Use Stopped After the Onset of the Adverse Event: Yes

Perceived Relatedness to Adverse Event: Possibly related

Other Foods or Products Given to the Animal During This Time Period: Yes

Manufacturer /Distributor Information:

Purchase Location Information: Name: Chewy.com

Animal Information:

Name: [B6]

Type Of Species: Dog

Type Of Breed: Retriever - Golden

Gender: Male

Reproductive Status: Neutered

Weight: 40 Kilogram

	Age:	6 Years														
	Assessment of Prior Health:	Good														
	Number of Animals Given the Product:	1														
	Number of Animals Reacted:	1														
	Owner Information:	<table border="1"> <tr> <td>Owner Information provided:</td> <td>Yes</td> </tr> <tr> <td>Contact: Name:</td> <td>B6</td> </tr> <tr> <td>Phone:</td> <td></td> </tr> <tr> <td>Address:</td> <td>B6</td> </tr> <tr> <td></td> <td>United States</td> </tr> </table>	Owner Information provided:	Yes	Contact: Name:	B6	Phone:		Address:	B6		United States				
Owner Information provided:	Yes															
Contact: Name:	B6															
Phone:																
Address:	B6															
	United States															
	Healthcare Professional Information:	<table border="1"> <tr> <td>Practice Name:</td> <td>B6</td> </tr> <tr> <td>Contact: Name:</td> <td>B6</td> </tr> <tr> <td>Phone:</td> <td></td> </tr> <tr> <td>Address:</td> <td>B6</td> </tr> <tr> <td></td> <td>United States</td> </tr> <tr> <td>Type of Veterinarian:</td> <td>Referred veterinarian</td> </tr> <tr> <td>Date First Seen:</td> <td>02/23/2018</td> </tr> </table>	Practice Name:	B6	Contact: Name:	B6	Phone:		Address:	B6		United States	Type of Veterinarian:	Referred veterinarian	Date First Seen:	02/23/2018
Practice Name:	B6															
Contact: Name:	B6															
Phone:																
Address:	B6															
	United States															
Type of Veterinarian:	Referred veterinarian															
Date First Seen:	02/23/2018															
Sender Information:	Name:															
	Address:	B6														
		United States														
	Contact: Phone:															
	Email:	B6														
	Reporter Wants to Remain Anonymous:	No														
	Permission To Contact Sender:	Yes														
	Preferred Method Of Contact:	Email														
	Reported to Other Parties:	None														
Additional Documents:																

Report Details - EON-351034	
ICSR:	2045680
Type Of Submission:	Initial
Report Version:	FPSR.FDA.PETF.V.V1
Type Of Report:	Adverse Event (a symptom, reaction or disease associated with the product)
Reporting Type:	Voluntary
Report Submission Date:	2018-04-12 13:51:10 EDT
Reported Problem:	Problem Description: [B6] was diagnosed with dilated cardiomyopathy and left sided congestive heart failure by the cardiology service at [B6] 8/4/2016. 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 wa [B6] (ref range 200-350, critical <150). owner was advised to stop current diet and start taurine supplementation.
	Date Problem Started: 08/04/2016
	Concurrent Medical Problem: Yes
	Pre Existing Conditions: Heart murmur first documented 4/3/2016 - 2/6 left basilar systolic
	Outcome to Date: Stable
Product Information:	Product Name: Kirkland Signature Nature's Domain Turkey Meal and Sweet Potato Dog Food
	Product Type: Pet Food
	Lot Number:
	Product Use Information:
	Description: Owner has been feeding daily for several years. Briefly switched diets for 3 months over 1 year prior but switched back as the Kirkland was better tolerated by the dog's GI tract.
	Last Exposure Date: 03/09/2018
	Product Use Stopped After the Onset of the Adverse Event: Unknown
	Perceived Relatedness to Adverse Event: Possibly related
	Other Foods or Products Given to the Animal During This Time Period: Yes
	Manufacturer /Distributor Information:
Purchase Location Information:	
Name: Costco Wholesale	
Animal Information:	Name: [B6]
	Type Of Species: Dog
	Type Of Breed: Retriever - Golden
	Gender: Female
	Reproductive Status: Neutered
	Weight: 31.1 Kilogram
	Age: 11 Years
	Assessment of Prior Health: Good
	Number of Animals Given the Product: 1
	Number of Animals Reacted: 1

	Owner Information:	Owner Information provided:	Yes
		Contact:	Name: B6 Phone: B6
		Address:	B6 United States
	Healthcare Professional Information:	Practice Name:	B6
		Contact:	Name: B6 Phone: B6
		Address:	B6 United States
		Type of Veterinarian:	Referred veterinarian
		Date First Seen:	08/04/2016
Sender Information:	Name:		
	Address:	B6	United States
	Contact:	Phone:	B6
		Email:	
	Reporter Wants to Remain Anonymous:	No	
	Permission To Contact Sender:	Yes	
Preferred Method Of Contact:	Email		
Reported to Other Parties:	None		
Additional Documents:			

Report Details - EON-351879		
ICSR:	2046277	
Type Of Submission:	Initial	
Report Version:	FPSR.FDA.PETF.V.V1	
Type Of Report:	Adverse Event (a symptom, reaction or disease associated with the product)	
Reporting Type:	Voluntary	
Report Submission Date:	2018-04-23 10:33:06 EDT	
Reported Problem:	Problem Description: Reported as RFR (EON-351747). FDA CVM resubmitting as PFR. 7 year old castrated male Doberman pinscher with DCM. Has been eating Blue Buffalo Basics salmon and potato dry food since 2012 (rotates between regular and grain free version of this diet). Recently, diagnosed with DCM and whole blood taurine was <u>B6</u> μmol/ml. Started on cardiac medications by <u>B6</u> and just started taurine and fish oil (may also start L-carnitine and coenzyme Q10). Unclear if taurine deficiency-related DCM or related to current concerns with "grain free" diets. DCM and taurine deficiency. Owner has had of food that she's keeping until we hear from you. <u>B6</u> is <u>B6</u> .	
	Date Problem Started: 04/03/2018	
	Concurrent Medical Problem: Unknown	
	Outcome to Date: Unknown	
Product Information:	Product Name: Blue Buffalo Basics salmon and potato dry food - regular and grain-free:	
	Product Type: Pet Food	
	Lot Number:	
	Package Type: BAG	
	Possess Unopened Product: Unknown	
	Possess Opened Product: Unknown	
	Product Use Information:	Description: rotates between regular and grain free version of this diet (since 2012)
		Product Use Stopped After the Onset of the Adverse Event: Yes
		Adverse Event Abate After Product Stop: Unknown
		Product Use Started Again: No
Perceived Relatedness to Adverse Event: Possibly related		
Other Foods or Products Given to the Animal During This Time Period: Yes		
Manufacturer /Distributor Information:		
Purchase Location Information:		
Animal Information:	Name: <u>B6</u>	
	Type Of Species: Dog	
	Type Of Breed: Doberman Pinscher	
	Gender: Male	
	Reproductive Status: Neutered	

	Age: 7 Years
	Assessment of Prior Health: Unknown
	Number of Animals Given the Product: 1
	Number of Animals Reacted: 1
	Owner Information: Owner Information provided: No
Healthcare Professional Information:	Practice Name: Tufts Cummings School of Veterinary Medicine
	Contact: Name: Lisa Freeman
	Phone: (508) 887-4523
	Email: lisa.freeman@tufts.edu
	Address: 200 Westboro Rd North Grafton Massachusetts 01536 United States
	Type of Veterinarian: Referred veterinarian
	Date First Seen: 04/19/2018
	Practice Name: B6
Contact: Name: B6	
Phone: Unknown	
Type of Veterinarian: Primary/regular veterinarian	
Date First Seen: 04/03/2018	
Sender Information:	Name: Lisa Freeman
	Address: 200 Westboro Rd North Grafton Massachusetts 01536 United States
	Contact: Phone: 5088874523
	Email: lisa.freeman@tufts.edu
	Reporter Wants to Remain Anonymous: No
	Permission To Contact Sender: Yes
	Preferred Method Of Contact: Email
	Reported to Other Parties: Unknown
Additional Documents:	Attachment: B6 records.pdf
	Description: Medical records
	Type: Record
	Attachment: B6 DCM 4-19-18.pdf
	Description: Nutrition report (Tufts)
	Type: Record

Report Details - EON-354251			
ICSR:	2048125		
Type Of Submission:	Initial		
Report Version:	FPSR.FDA.PETF.V.V1		
Type Of Report:	Adverse Event (a symptom, reaction or disease associated with the product)		
Reporting Type:	Voluntary		
Report Submission Date:	2018-05-21 07:55:06 EDT		
Reported Problem:	Problem 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. [B6] pending. Owner has switched to another food and has saved the 4Health food	
	Date Problem Started:	05/18/2018	
	Concurrent Medical Problem:	Unknown	
	Outcome to Date:	Unknown	
Product Information:	Product Name:	4Health large breed dry food	
	Product Type:	Pet Food	
	Lot Number:		
	Package Type:	BAG	
	Possess Unopened Product:	Unknown	
	Possess Opened Product:	Yes	
	Product Use Information:	Description:	Has eaten 4Health dog food (large breed dry) since 6/2016
		First Exposure Date:	06/30/2016
		Product Use Stopped After the Onset of the Adverse Event:	Yes
		Adverse Event Abate After Product Stop:	Unknown
Product Use Started Again:		No	
Manufacturer /Distributor Information:			
Purchase Location Information:			
Animal Information:	Name:		
	Type Of Species:	Dog	
	Type Of Breed:	Great Dane	
	Gender:	Unknown	
	Reproductive Status:	Unknown	
	Age:	2 Years	
	Assessment of Prior Health:	Unknown	
	Number of Animals Given the Product:	1	
	Number of Animals Reacted:	1	
Owner Information:	Owner Information provided:	Yes	
	Contact: Name:	[B6]	

			Phone: B6
		Address: Unknown Unknown	B6 United States
	Healthcare Professional Information:		
Sender Information:	Name:	Lisa Freeman	
	Address:	200 Westboro Rd North Grafton Massachusetts 01536 United States	
	Contact:	Phone: 5088874523	Email: lisa.freeman@tufts.edu
	Reporter Wants to Remain Anonymous:	No	
	Permission To Contact Sender:	Yes	
	Preferred Method Of Contact:	Email	
	Reported to Other Parties:	Unknown	
Additional Documents:			

Report Details - EON-355703

ICSR: 2049063
Type Of Submission: Initial
Report Version: FPSR.FDA.PETF.V.V1
Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
Reporting Type: Voluntary
Report Submission Date: 2018-06-06 07:53:32 EDT

Reported Problem:

Problem 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
Date Problem Started:	05/29/2018
Concurrent Medical Problem:	Unknown
Outcome to Date:	Unknown

Product Information:

Product Name:	4health Grain-Free Large Breed Formula Adult Dog Food	
Product Type:	Pet Food	
Lot Number:		
Package Type:	BAG	
Possess Unopened Product:	Unknown	
Possess Opened Product:	Yes	
Product Use Information:	Product Use Stopped After the Onset of the Adverse Event:	Unknown
Manufacturer /Distributor Information:		
Purchase Location Information:		

Animal Information:

Name:								
Type Of Species:	Dog							
Type Of Breed:	Unknown							
Gender:	Unknown							
Reproductive Status:	Unknown							
Assessment of Prior Health:	Unknown							
Number of Animals Given the Product:	1							
Number of Animals Reacted:	1							
Owner Information:	Owner Information provided:	Yes						
	Contact:	<table border="1"><tr><td>Name:</td><td>[B6]</td></tr><tr><td>Phone:</td><td>[B6]</td></tr><tr><td>Email:</td><td>[B6]</td></tr></table>	Name:	[B6]	Phone:	[B6]	Email:	[B6]
Name:	[B6]							
Phone:	[B6]							
Email:	[B6]							
	Address:	<table border="1"><tr><td>[B6]</td></tr><tr><td>United States</td></tr></table>	[B6]	United States				
[B6]								
United States								
Healthcare Professional Information:								

Sender Information:	Name:	Lisa Freeman	
	Address:	200 Westboro Road North Grafton Massachusetts 01536 United States	
	Contact:	Phone:	5088874523
		Email:	lisa.freeman@tufts.edu
	Reporter Wants to Remain Anonymous:	No	
	Permission To Contact Sender:	Yes	
	Preferred Method Of Contact:	Email	
Reported to Other Parties:	Unknown		

Additional Documents:

Report Details - EON-356322

ICSR: 2049280
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2018-06-12 11:05:01 EDT

Reported Problem:

Problem Description: B6 presented at B6 for difficulty breathing/enlarged heart. B6 was diagnosed on Thursday with an enlarged heart with RDVM. RDVM sent B6 home with instructions to limit activity. B6 collapsed twice this weekend. Once was when B6 was outside walking and saw a squirrel and the other episode was when B6 saw the neighbor and came running to neighbor. B6 has been eating normal, but B6 did have soft stool yesterday. B6 has continued to breathe heavy throughout the weekend and has been experiencing coughing/ barking episodes of discomfort. B6 is up to date on vaccines. B6 littermate was diagnosed with a heart murmur at 1.5 years old.

Date Problem Started: 05/24/2018
Date of Recovery: 05/30/2018
Concurrent Medical Problem: Unknown
Outcome to Date: Better/Improved/Recovering

Product Information:

Product Name: 4health Grain Free Beef & Potato Formula
Product Type: Pet Food
Lot Number:
UPC: 104615599
Package Type: BAG
Package Size: 30 Pound
Possess Unopened Product: No
Possess Opened Product: Yes

Product Use Information:

Description: 1 and 1/2 cup dry food fed BID since 2013. Also fed Old Mother Hubbard Mini Treats, Marrow Bones, and small amounts of peanut butter, green beans, bananas, and carrots. Pet also licks plates. Pet receives Mature Made Fish Oil-1 1200mg capsule PO SID.

First Exposure Date: 05/01/2013
Last Exposure Date: 05/29/2018
Product Use Stopped After the Onset of the Adverse Event: Unknown
Perceived Relatedness to Adverse Event: Probably related
Other Foods or Products Given to the Animal During This Time Period: Yes

Manufacturer /Distributor Information:

Purchase Location Information: Name: B6 Address: United States

Animal Information:

Name:	B6
Type Of Species:	Dog
Type Of Breed:	Retriever - Golden
Gender:	Male
Reproductive Status:	Neutered
Weight:	34.5 Kilogram
Age:	B6 years
Assessment of Prior Health:	Good
Number of Animals Given the Product:	1
Number of Animals Reacted:	1
Owner Information:	Owner Information provided: Yes
	Contact: Name: B6
	Phone: B6
	Email: B6
	Address: B6
	United States

Healthcare Professional Information:	Practice Name: B6
	Contact: Name: B6
	Phone: B6
	Other Phone: B6
	Email: B6
	Address: B6
	United States

Sender Information:

Name:	B6
Address:	B6
	United States
Contact:	Phone: B6
	Other Phone: B6
	Email: B6
Permission To Contact Sender:	Yes
Preferred Method Of Contact:	Email

Additional Documents:

Attachment:	cardio0052.pdf
Description:	Echo report, labwork, vetrad report from rDVM prior to presentation to us. taurine results
Type:	Medical Records

Report Details - EON-358128

ICSR: 2051197
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2018-07-02 16:02:14 EDT

Reported Problem:

Problem Description: Developed dry, harsh coughing in late May, which rDVM initially treated with [B6]. 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] 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

Date Problem Started: 05/29/2018

Concurrent Medical Problem: Yes

Pre Existing Conditions: Hx of being [B6]. Rx'd [B6] which caused GI upset. Owner feeding bland diet of lean ground beef and rice for 3 weeks. Recently added in canned Blue Buffalo to help medicated [B6].

Outcome to Date: Better/Improved/Recovering

Product Information:

Product Name: Zignature Kangeroo and Lentil

Product Type: Pet Food

Lot Number:

Package Type: BAG

Possess Unopened Product: Unknown

Possess Opened Product: Yes

Product Use Information:

Description: Zignature diet Fed BID for the last 12 months; also offered Venison Jerky and bully sticks as treats. For the past 3 weeks, owner has offered bland diet of 85-93% lean ground beef and rice at 2-4 cups a day, as well as canned Blue Buffalo for administering medications.

Product Use Stopped After the Onset of the Adverse Event: No

Perceived Relatedness to Adverse Event: Probably related

Other Foods or Products Given to the Animal During This Time Period: Yes

Manufacturer /Distributor Information:

Purchase Location Information: **Address:** [B6] United States

Animal Information:

Name: [B6]

Type Of Species: Dog

Type Of Breed: Mixed (Dog)

	Gender: Male
	Reproductive Status: Neutered
	Weight: 21.3 Kilogram
	Age: 9 Years
	Assessment of Prior Health: Fair
	Number of Animals Reacted: 1
	Owner Information: Yes
	Owner Information provided:
	Contact: Name: B6
	Phone: B6
	Email: B6
	Address: B6
	United States
	Healthcare Professional Information: Practice Name: B6
	Contact: Name: B6
	Phone: B6
	Other Phone: B6
	Email: B6
	Address: B6
	United States
Sender Information:	Name: B6
	Address: B6
	United States
	Contact: Phone: B6
	Other Phone: B6
	Email: B6
	Permission To Contact Sender: Yes
	Preferred Method Of Contact: Email
	Reported to Other Parties: None
Additional Documents:	Attachment: cardio0012.pdf
	Description: echo report, diet hx, labwork attached
	Type: Medical Records

Report Details - EON-358131

ICSR: 2051199
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2018-07-02 16:17:19 EDT

Reported Problem:

Problem Description: Presented as emergency appointment for evaluation of intermittent, persistent cough, first documented five weeks ago. After cough did not respond to course of [B6] and [B6] [B6] was added with no improvement. rDVM thoracic radiographs taken on 6/22/18 showed cardiomegaly. Owner describes cough as dry and harsh, which is worse in the evening and when [B6] is in sternal recumbency [B6] is very active, without any exercise intolerance or weakness. She tends to graze throughout the day, though has been slower to finish her meals recently [B6] has lost a noticeable amount of weight in the last four weeks. Diagnosed with DCM and taurine level is pending.

Date Problem Started: 05/30/2018

Concurrent Medical Problem: Yes

Pre Existing Conditions: Hx of being [B6]

Outcome to Date: Better/Improved/Recovering

Product Information:

Product Name: 4Health Grain Free

Product Type: Pet Food

Lot Number:

Package Type: BAG

Possess Unopened Product: No

Possess Opened Product: Yes

Product Use Information:

Description: 4Health grain free dry- 4 cups daily since late 2016. Also offered rawhide chews from Walmart for years, Canine Carryout Treats for years, and various ham, chicken, and beef table scraps for years.

Time Interval between Product Use and Adverse Event: 2 Years

Product Use Stopped After the Onset of the Adverse Event: No

Perceived Relatedness to Adverse Event: Probably related

Other Foods or Products Given to the Animal During This Time Period: Yes

Manufacturer /Distributor Information:

Purchase Location Information: **Address:** [B6] United States

Animal Information:

Name: [B6]

Type Of Species: Dog

Type Of Breed: Mixed (Dog)

	Gender: Female
	Reproductive Status: Neutered
	Weight: 29.9 Kilogram
	Age: 9 Years
	Assessment of Prior Health: Good
	Number of Animals Reacted: 1
	Owner Information:
	Owner Information provided: Yes
	Contact:
	Name: B6
	Phone: B6
	Email: B6
	Address: B6
	United States
	Healthcare Professional Information:
	Practice Name: B6
	Contact:
	Name: B6
	Phone: B6
	Other Phone: B6
	Email: B6
	Address: B6
	United States
Sender Information:	Name: B6
	Address: B6
	United States
	Contact:
	Phone: B6
	Other Phone: B6
	Email: B6
	Permission To Contact Sender: Yes
	Preferred Method Of Contact: Email
	Reported to Other Parties: None
Additional Documents:	Attachment: cardio0013.pdf
	Description: echo report, diet history
	Type: Medical Records

Report Details - EON-358518

ICSR: 2051554
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2018-07-09 08:35:47 EDT

Reported Problem:
Problem Description: Routine echo during treatment for [B6] Normal left ventricular wall thickness with reduced contractile function
Date Problem Started: 06/21/2018
Concurrent Medical Problem: Yes
Pre Existing Conditions: [B6]
Outcome to Date: Stable

Product Information:
Product Name: Merrick grain free salmon and sweet potato dry
Product Type: Pet Food
Lot Number:
Package Type: BAG
Product Use Information:
Manufacturer /Distributor Information:
Purchase Location Information:

Animal Information:
Name: [B6]
Type Of Species: Dog
Type Of Breed: Mixed (Dog)
Gender: Female
Reproductive Status: Neutered
Weight: 20.5 Kilogram
Age: [B6] Years
Assessment of Prior Health: Unknown
Number of Animals Reacted: 1
Owner Information:
Owner Information provided: Yes
Contact: Name: [B6]
 Phone: [B6]
Address: [B6]
 United States
Healthcare Professional Information:
Practice Name: Tufts Cummings School of Veterinary Medicine
Contact: Name: Lisa Freeman
 Phone: (508) 887-4523
 Email: lisa.freeman@tufts.edu
Address: 200 Westboro Rd
 North Grafton
 Massachusetts

01536
United States

Sender Information:

Name:	Lisa Freeman	
Address:	200 Westboro Rd North Grafton Massachusetts 01536 United States	
Contact:	Phone:	5088874523
	Email:	lisa.freeman@tufts.edu
Permission To Contact Sender:	Yes	
Preferred Method Of Contact:	Email	
Reported to Other Parties:	None	

Additional Documents:

Report Details - EON-358519

ICSR: 2051555
Type Of Submission: Initial
Report Version: FPSR.FDA.PETF.V.V1
Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
Reporting Type: Voluntary
Report Submission Date: 2018-07-09 08:43:16 EDT

Reported Problem:
Problem Description: Diagnosed with LV cavity dilation and reduced contractile function
Date Problem Started: 06/20/2018
Concurrent Medical Problem: Yes
Pre Existing Conditions: B6
Outcome to Date: Unknown

Product Information:
Product Name: Earthborn Coastal Catch dry
Product Type: Pet Food
Lot Number:
Package Type: BAG
Product Use Information:
Manufacturer /Distributor Information:
Purchase Location Information:

Animal Information:
Name: B6
Type Of Species: Dog
Type Of Breed: Boxer (German Boxer)
Gender: Female
Reproductive Status: Neutered
Weight: 33.2 Kilogram
Age: B6 Years
Number of Animals Reacted: 1
Owner Information: Owner Information provided: Yes
Contact: Name: B6
Phone: B6
Address: B6
United States

Healthcare Professional Information:
Practice Name: Tufts Cummings School of Veterinary Medicine
Contact: Name: Lisa Freeman
Phone: (508) 887-4523
Email: lisa.freeman@tufts.edu
Address: 200 Westboro Rd
North Grafton
Massachusetts
01536
United States

Sender Information: Name: Lisa Freeman

	Address:	200 Westboro Rd North Grafton Massachusetts 01536 United States		
	Contact:	Phone:	5088874523	
		Email:	lisa.freeman@tufts.edu	
	Permission To Contact Sender:	Yes		
	Preferred Method Of Contact:	Email		
Reported to Other Parties:	None			

Additional Documents:

Report Details - EON-358522

ICSR: 2051557
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2018-07-09 08:50:19 EDT

Reported Problem:
 Problem Description: DCM and CHF Taurine not measured
 Date Problem Started: 06/29/2018
 Concurrent Medical Problem: No
 Outcome to Date: Stable

Product Information:
 Product Name: Halo grain-free dry food (exact variety unknown)
 Product Type: Pet Food
 Lot Number:
 Package Type: BAG
 Product Use Information:
 Manufacturer /Distributor Information:
 Purchase Location Information:

Animal Information:
 Name: B6
 Type Of Species: Dog
 Type Of Breed: Great Dane
 Gender: Male
 Reproductive Status: Neutered
 Weight: 64 Kilogram
 Age: B6 Years
 Assessment of Prior Health: Unknown
 Number of Animals Reacted: 1
 Owner Information: Owner Information provided: Yes
 Contact: Name: B6
 Phone: B6
 Address: B6
 United States
 Healthcare Professional Information: Practice Name: Tufts Cummings School of Veterinary Medicine
 Contact: Name: Lisa Freeman
 Phone: (508) 887-4523
 Email: lisa.freeman@tufts.edu
 Address: 200 Westboro Rd
 North Grafton
 Massachusetts
 01536
 United States

Sender Information:	Name:	Lisa Freeman	
	Address:	200 Westboro Rd North Grafton Massachusetts 01536 United States	
	Contact:	Phone:	5088874523
		Email:	lisa.freeman@tufts.edu
	Permission To Contact Sender:	Yes	
	Preferred Method Of Contact:	Email	
Reported to Other Parties:	None		

Additional Documents:

Report Details - EON-358523

ICSR: 2051558
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2018-07-09 08:56:52 EDT

Reported Problem:
Problem Description: DCM and CHF
Date Problem Started: 07/03/2018
Concurrent Medical Problem: No
Outcome to Date: Stable

Product Information:
Product Name: Taste of the Wild grain free lamb dry
Product Type: Pet Food
Lot Number:
Package Type: BAG
Product Use Information:
Manufacturer /Distributor Information:
Purchase Location Information:

Animal Information:
Name: B6
Type Of Species: Dog
Type Of Breed: Retriever - Labrador
Gender: Male
Reproductive Status: Neutered
Weight: 50.8 Kilogram
Age: B6 Years
Assessment of Prior Health: Good
Number of Animals Reacted: 1
Owner Information:
Owner Information provided: Yes
Contact: Name: B6
 Phone: B6
Address: B6
 United States
Healthcare Professional Information:
Practice Name: Tufts Cummings School of Veterinary Medicine
Contact: Name: Lisa Freeman
 Phone: (508) 887-4523
 Email: lisa.freeman@tufts.edu
Address: 200 Westboro Rd
 North Grafton
 Massachusetts
 01536
 United States

Sender Information:	Name:	Lisa Freeman	
	Address:	200 Westboro Rd North Grafton Massachusetts 01536 United States	
	Contact:	Phone:	5088874523
		Email:	lisa.freeman@tufts.edu
	Permission To Contact Sender:	Yes	
	Preferred Method Of Contact:	Email	
Reported to Other Parties:	None		

Additional Documents:

Consumer Complaint Issue Screen - EON-358842

Complaint Number:	154120												
Complaint Date:	07/09/2018												
Receiving Organization:	NWE-DO												
Complaint Identification:	<table border="1"> <tr> <td>Name:</td> <td rowspan="4" style="text-align: center; vertical-align: middle;"><h1>B6</h1></td> </tr> <tr> <td>Address:</td> </tr> <tr> <td>Phone (H):</td> </tr> <tr> <td>Phone (W):</td> </tr> </table>	Name:	<h1>B6</h1>	Address:	Phone (H):	Phone (W):							
Name:	<h1>B6</h1>												
Address:													
Phone (H):													
Phone (W):													
Complaint/Injury:	<p>Complaint Description: Products: (1) Taste of the Wild Prey Angus Beef Limited Ingredient Formula for Dogs (Grain-Free) and (2) Taste of the Wild Pacific Stream Canine Recipe with Smoked Salmon Dog Food (Grain-Free): A 2 y/o, female Great Dane, B6 145 lbs, not spayed, no diagnosed allergies, and no pre-diagnosed conditions, experienced red skin and itchiness throughout her body in mid 12/2017. The reaction subsided within a few days, but reoccurred a couple of weeks later in late 12/2017, and subsided in a few days. No healthcare was sought. In 05/2018, B6 was taken to B6 for pre-op tests to prepare for spaying, and test results, chest x-ray and electrocardiogram were negative for anomalies. On B6 follow-up at B6 disclosed low blood platelets and B6 was diagnosed with Mitral Valve Dysplasia. B6 was considered stable, so no medication was prescribed, and a follow-up electrocardiogram was recommended for 12/2018. On B6 1:00 am, the Complainant heard the loud cough, monitored the dog and on B6 brought B6 to B6 where B6 administered a chest x-ray and tests confirmed Congestive Heart Failure and on the same day, B6 was admitted to B6 where B6 was diagnosed with Cardiomyopathy due "to taurine deficiency from a grain-free diet". She was treated and released on B6 with Rx B6 and B6 and is lethargic. She has a follow-up appointment in two weeks with B6. The Complainant (owner) believes that these two Taste of the Wild Grain-Free dog foods caused B6 conditions. She has fed Taste of the Wild Pacific Stream Canine Recipe with Smoked Salmon Dog Food to B6 since she was born and changed food to the Angus Beef flavor in 01/2018, due to what she believes was an allergic reaction, itchy ears, and red skin, that she began noticing in 12/2017, that she believed was (continued below)</p>												
Complaint Symptoms:	<p>Symptom: Change in mood quality or level; anxiety - lethargic following hospitalization Changes in skin and nail coloration (cyanosis, flushing) - red skin throughout body from consumption of Pacific Stream dog food, 2x in mid and late 12/2017. ONSET time could not be determined Coughing - dog coughed loudly 1x; ONSET could not be determined Itching (pruritis) - itchiness throughout body from consumption of Pacific Stream dog food, 2x in mid and late 12/2017; ONSET time could not be determined</p>												
Health Care Professional:	<table border="1"> <tr> <td>Provider Name:</td> <td rowspan="4" style="text-align: center; vertical-align: middle;"><h1>B6</h1></td> </tr> <tr> <td>Address:</td> </tr> <tr> <td>Phone:</td> </tr> <tr> <td>Hospital Name:</td> </tr> <tr> <td>Hospital Information:</td> <td> <table border="1"> <tr> <td>Address:</td> <td rowspan="2" style="text-align: center; vertical-align: middle;"><h1>B6</h1></td> </tr> <tr> <td>Address:</td> </tr> <tr> <td></td> <td>US</td> </tr> </table> </td> </tr> </table>	Provider Name:	<h1>B6</h1>	Address:	Phone:	Hospital Name:	Hospital Information:	<table border="1"> <tr> <td>Address:</td> <td rowspan="2" style="text-align: center; vertical-align: middle;"><h1>B6</h1></td> </tr> <tr> <td>Address:</td> </tr> <tr> <td></td> <td>US</td> </tr> </table>	Address:	<h1>B6</h1>	Address:		US
Provider Name:	<h1>B6</h1>												
Address:													
Phone:													
Hospital Name:													
Hospital Information:	<table border="1"> <tr> <td>Address:</td> <td rowspan="2" style="text-align: center; vertical-align: middle;"><h1>B6</h1></td> </tr> <tr> <td>Address:</td> </tr> <tr> <td></td> <td>US</td> </tr> </table>	Address:	<h1>B6</h1>	Address:		US							
Address:	<h1>B6</h1>												
Address:													
	US												

	Phone:	B6
Product and Labeling:	Brand Name:	Taste of the Wild
	Product Name:	Prey Angus Beef Limited Ingredient Formula for Dogs (Grain Free)
	UPC Code:	not provided
	Lot/Serial #:	not provided
	Exp/Use by Date:	not provided

Report Details - EON-359051

ICSR: 2051919
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Both
 Reporting Type: Voluntary
 Report Submission Date: 2018-07-12 16:40:22 EDT
 Reporter is the Animal Owner: Yes

Reported Problem:
Problem Description: In CY 2012, my Saluki, B6, was part of a targeted cardiac study conducted at B6. As part of the study, B6 wore a Holter vest and received an echocardiogram. The results of his screening indicated no heart issues/defects - his heart was healthy. On February 12, 2018, B6 was diagnosed by both my vet and a veterinary cardiologist as having congestive heart failure, severely advanced dilated cardiomyopathy, heart arrhythmia and a grossly enlarged left heart ventricle (left ventricle was nearly 2x it's normal size while the right ventricle was normal sized). He was placed on a host of cardiac medications that helped improve his quality of life for several weeks, but the disease had progressed too far. On B6, we made the decision to euthanize him. Prior to his diagnosis in February 2018, B6 was aging gracefully and was an overall healthy, active dog. He developed a cough one morning and upon vet check we received the shocking diagnosis. For several years we had been feeding B6 Kirkland Signature Nature's Domain Salmon Meal & Sweet Potato Grain-Free dog food. Occasionally we alternated between this food and the chicken based grain free dog food (same brand). Purchased in large 35 lb bags at Costco. Neither the cardiologist who diagnosed B6 nor the team at B6 were able to explain to me why it was that he developed such serious, severe heart disease at age 11/12 after being cardiac cleared in CY 2012. B6 did have two litter-mates who died very young from arrhythmia (they died under the age of four), but the rest of the dogs in the litter were heart healthy as was B6. I read the FDA report issued today, July 12, 2018 (FDA Investigating Potential Connection Between Diet and Cases of Canine Heart Disease) with great shock and sadness. Based upon what I have read and my own experience with my dog, I am extremely concerned that the Kirkland brand grain-free dog food I have used for years (containing peas, potatoes and potato starch as high-content ingredients), may have led to to my dog's severe heart disease, suffering and eventual death. Until he awoke with a cough that morning in February 2018, we had no indication whatsoever that he was so sick with advanced heart disease. The FDA report encouraged pet owners to report cases of DCM in dogs suspected of having a link to diet - this is why I am reaching out to you today regarding my experience. If B6 records regarding his heart disease from my vet, B6 or the cardiologist will be helpful in your research to identify/confirm that these grain-free diets are a contributing factor or are the root cause of DCM in these dogs, please let me know. Thank you.

Date Problem Started: 02/12/2018

Concurrent Medical Problem: Yes

Pre Existing Conditions: In CY 2014, B6 had B6, which was cured by neutering.

Outcome to Date: Died Euthanized

Date of Death: B6

Product Information:
Product Name: Kirkland Signature Nature's Domain Salmon Meal & Sweet Potato Dog Food (Grain Free)
Product Type: Pet Food
Lot Number:
Package Type: BAG
Package Size: 35 Pound
Possess Unopened Product: No
Possess Opened Product: No
 Stored in a plastic dog food bin (sealed lid) in hall closet.

	Storage Conditions:	
	Product Use Information:	Description: Fed daily for several years to my dog.
		First Exposure Date: 05/01/2016
		Last Exposure Date: B6
		Time Interval between Product Use and Adverse Event: 2 Years
		Product Use Stopped After the Onset of the Adverse Event: No
		Perceived Relatedness to Adverse Event: Probably related
		Other Foods or Products Given to the Animal During This Time Period: Yes
	Manufacturer /Distributor Information:	
	Purchase Location Information:	Name:
		Address: B6 United States
Animal Information:	Name: B6	
	Type Of Species: Dog	
	Type Of Breed: Saluki	
	Gender: Male	
	Reproductive Status: Neutered	
	Weight: 60 Pound	
	Age: 12 Years	
	Assessment of Prior Health: Good	
	Number of Animals Reacted: 1	
	Owner Information:	
	Healthcare Professional Information:	Practice Name: B6
		Contact: Name: B6
		Phone:
		Address: B6 United States
		Type of Veterinarian: Primary/regular veterinarian
		Date First Seen: 04/12/2018
		Permission to Release Records to FDA: Yes
	Practice Name: Veterinary Cardiology Consultants	

		Contact: Name: B6 Phone: B6
		Address: B6 United States
		Type of Veterinarian: Referred veterinarian
		Date First Seen: 02/12/2018
		Permission to Release Records to FDA: Yes
Sender Information:	Name: Address: B6 United States	
	Contact: Phone: B6 Email: B6	
	Permission To Contact Sender: Yes	
	Preferred Method Of Contact: Email	
	Reported to Other Parties: None	
Additional Documents:		

Report Details - EON-359060

ICSR:	2051931
Type Of Submission:	Initial
Report Version:	FPSR.FDA.PETF.V.V1
Type Of Report:	Both
Reporting Type:	Voluntary
Report Submission Date:	2018-07-12 20:13:10 EDT
Reporter is the Animal Owner:	Yes

Reported Problem:	Problem Description:	[B6] was diagnosed with Taurine Deficit Dilated Cardiomyopathy after attempts to save in him in the ER and hospital stay of 4 days he went into he went into congestive heart failure and was euthanized. He exhibited symptoms of Taurine deficit however was treated for individual symptoms until he collapsed and he had an echo cardiogram which showed the DCM. His mother and sister started to show Taurine deficit symptoms at the same time. Their dog food was switched immediately and placed on Taurine and L carnitine supplements. They all had been on grain free food their whole lives. In hindsight and knowing now what I've learned all too late for [B6] I believe two of my other dogs also suffered from this but it wasn't known at the time the possible cause.
	Date Problem Started:	[B6]
	Concurrent Medical Problem:	No
	Outcome to Date:	Died Euthanized
	Date of Death:	[B6]

Product Information:	Product Name:	Earthborn Holistic grain free, bison, lamb, pacific		
	Product Type:	Pet Food		
	Lot Number:			
	Package Type:	BAG		
	Package Size:	28 Pound		
	Purchase Date:	02/08/2018		
	Number Purchased:	3		
	Possess Unopened Product:	No		
	Possess Opened Product:	No		
	Storage Conditions:	Until opened stored in metal container after opening open product stored in cupboard in orig pkg.		
	Product Use Information:	Description:	2 times a day per recommended feeding instructions for weight	
		First Exposure Date:	02/08/2018	
		Last Exposure Date:	[B6]	
		Time Interval between Product Use and Adverse Event:	6 Years	
		Product Use Stopped After the Onset of the Adverse Event:	Yes	
Adverse Event Abate After Product Stop:		Not Applicable		
Product Use Started Again:		No		
	Perceived	Definitely related		

		Relatedness to Adverse Event:	
		Other Foods or Products Given to the Animal During This Time Period:	Yes
	Manufacturer /Distributor Information:		
	Purchase Location Information:	Name:	
		Address:	B6
			United States
Animal Information:	Name:		B6
	Type Of Species:	Dog	
	Type Of Breed:	Setter - Gordon	
	Gender:	Male	
	Reproductive Status:	Intact	
	Weight:	80 Pound	
	Age:	B6 Years	
	Assessment of Prior Health:	Excellent	
	Number of Animals Given the Product:	5	
	Number of Animals Reacted:	4	
	Owner Information:		
	Healthcare Professional Information:	Practice Name:	B6
		Contact: Name:	B6
		Phone:	
		Email:	
		Address:	B6
			United States
		Type of Veterinarian:	Referred veterinarian
		Date First Seen:	B6
		Permission to Release Records to FDA:	Yes
Sender Information:	Name:		
	Address:		B6
			United States
	Contact:	Phone:	B6
		Email:	
	Reporter Wants to Remain Anonymous:	No	
	Permission To Contact	Yes	

	Sender:	
	Preferred Method Of Contact:	Email
	Reported to Other Parties:	Other Store/Place of Purchase

Additional Documents:

Report Details - EON-359067		
ICSR:	2051935	
Type Of Submission:	Initial	
Report Version:	FPSR.FDA.PETF.V.V1	
Type Of Report:	Adverse Event (a symptom, reaction or disease associated with the product)	
Reporting Type:	Voluntary	
Report Submission Date:	2018-07-12 22:15:30 EDT	
Reporter is the Animal Owner:	Yes	
Reported Problem:	Problem Description: In 2014, [B6] was diagnosed with early-onset heart failure caused by dilated cardiomyopathy. Prior to this diagnosis, he was in great health. Were able to minimize the effects of the heart failure with meds and prescription diet. Prior to this, [B6] was fed a steady diet of Blue Buffalo - and prior to that, Beneful. Dog's heart became enlarged and ultimately led to his death.	
	Date Problem Started: 02/05/2014	
	Concurrent Medical Problem: No	
	Outcome to Date: Died Other	
	Date of Death: [B6]	
Product Information:	Product Name: Blue Buffalo Life Protection Formula Chicken and Brown Rice Recipe For both ADULT and SENIOR; Blue Buffalo FREEDOM - Grain Free Chicken Recipe For both ADULT and SENIOR,	
	Product Type: Pet Food	
	Lot Number:	
	Package Type: BAG	
	Possess Unopened Product: No	
	Possess Opened Product: No	
	Storage Conditions: stored in canister.	
	Product Use Information:	Description: Dog was fed one cup in morning and one in the evening.
		Product Use Stopped After the Onset of the Adverse Event: Yes
		Adverse Event Abate After Product Stop: No
		Perceived Relatedness to Adverse Event: Possibly related
		Other Foods or Products Given to the Animal During This Time Period: Unknown
Manufacturer /Distributor Information:		
Purchase Location Information:		
Animal Information:	Name: [B6]	
	Type Of Species: Dog	
	Type Of Breed: Schnauzer (unspecified)	
	Gender: Male	
	Reproductive Status: Neutered	

	Weight:	35 Pound
	Age:	10 Years
	Assessment of Prior Health:	Excellent
	Number of Animals Given the Product:	1
	Number of Animals Reacted:	1
	Owner Information:	
Healthcare Professional Information:	Contact:	Name: B6
		Phone: B6
	Date First Seen:	02/05/2014
	Permission to Release Records to FDA:	No
Sender Information:	Name:	B6
	Contact:	Email: B6
	Reporter Wants to Remain Anonymous:	No
	Permission To Contact Sender:	Yes
	Preferred Method Of Contact:	Email
	Reported to Other Parties:	None
Additional Documents:		

Report Details - EON-361371

ICSR:	2053236
Type Of Submission:	Initial
Report Version:	FPSR.FDA.PETF.V.V1
Type Of Report:	Adverse Event (a symptom, reaction or disease associated with the product)
Reporting Type:	Voluntary
Report Submission Date:	2018-08-04 21:25:50 EDT
Reporter is the Animal Owner:	Yes

Reported Problem:	Problem Description:	This is not an event that suddenly occurred. My dog was diagnosed with dilated cardiomyopathy at 2 years old. I enrolled him in the taurine deficient study done by Dr. Joshua Stern at UC Davis. He was eating Acana Pork & Squash since he was a puppy. His taurine was tested (4-18) and his whole blood is B6 and plasma B6. Since his taurine level is low, I was told to supplement him with taurine and take him off the current dog food. I was told his food could cause taurine deficient dilated cardiomyopathy. He will be re-tested in the upcoming months. It is not know at this time if the dog food contributed to his disease or caused it. The study is still on going.
	Date Problem Started:	04/12/2016
	Concurrent Medical Problem:	No
	Outcome to Date:	Unknown

Product Information:	Product Name:	Acana Pork and Squash	
	Product Type:	Pet Food	
	Lot Number:		
	Package Type:	BAG	
	Package Size:	25 Pound	
	Purchase Date:	05/29/2018	
	Number Purchased:	1	
	Possess Unopened Product:	No	
	Possess Opened Product:	No	
	Storage Conditions:	The product is stored in it's original bag and then placed in a air tight container.	
	Product Use Information:	Description:	The product was feed 2xs per day.
		Last Exposure Date:	07/15/2018
		Product Use Stopped After the Onset of the Adverse Event:	Yes
		Adverse Event Abate After Product Stop:	Unknown
Product Use Started Again:		No	
Perceived Relatedness to Adverse Event:		Possibly related	
Other Foods or Products Given to the Animal During This Time Period:		Yes	
Manufacturer /Distributor Information:			

	Purchase Location Information:	Name:	Pet Valu	
		Address:	B6 United States	
Animal Information:	Name:	B6		
	Type Of Species:	Dog		
	Type Of Breed:	Retriever - Golden		
	Gender:	Male		
	Reproductive Status:	Neutered		
	Weight:	67 Pound		
	Age:	4 Years		
	Assessment of Prior Health:	Excellent		
	Number of Animals Given the Product:	2		
	Number of Animals Reacted:	1		
	Owner Information:			
	Healthcare Professional Information:	Practice Name:	B6	
		Contact:		
Address:				
		United States		
Type of Veterinarian:		Referred veterinarian		
Date First Seen:		04/19/2016		
Permission to Release Records to FDA:	Yes			
Sender Information:	Name:	B6		
	Address:			
				United States
	Contact:	Phone:	B6	
		Email:		
	Permission To Contact Sender:	Yes		
Preferred Method Of Contact:	Email			
Reported to Other Parties:	Store/Place of Purchase Manufacturer			
Additional Documents:				

Report Details - EON-323519

ICSR:	2023230
Type Of Submission:	Initial
Report Version:	FPSR.FDA.PETF.V.V1
Type Of Report:	Adverse Event (a symptom, reaction or disease associated with the product)
Reporting Type:	Voluntary
Report Submission Date:	2017-07-11 17:32:14 EDT

Reported Problem:	Problem Description:	Please note: Dr. Jennifer Jones was consulted prior to submission of this report. She would like to be involved in the case review. B6 housemate B6 (separate report submitted) was diagnosed with DCM and CHF 2/17 and was euthanized after aggressive treatment of CHF. At that time, B6 had 2 syncopal events closely related to each other. His appetite for dog food declined but he would eat it if tempted with treats mixed in. He was presented 6/22/17 for more syncopal events and was similarly diagnosed with severe DCM and CHF. He was able to be successfully treated however and is clinically doing well on CHF medications as of 7/10/17. A re-review of the myocardial histopathology for B6 housemate B6 was requested at this time because of the unusual diagnosis of DCM in a small breed dog living in the same house as another dog similarly diagnosed a few months ago. This re-review by one of our pathologists showed myofiber vacuoles reminiscent of the changes seen in doxorubicin toxicity. Since the dog had not received doxorubicin, the pathologist recommended culturing the food for Streptomyces peucetius - the bacterium which produces doxorubicin. He also recommended testing for Fusarium spp. a fungus which produces Fumonisin B1, a toxin that produces heart failure in pigs. Like B6 (unrelated, younger miniature schnauzer), B6 had been fed California Naturals Adult - both kangaroo with lentils and venison with lentils along with Milo's kitchen treats. We have samples of these foods from 6/17 but not the original bags from when he was presented 2/17. These samples were provided at the time. B6 also presented with severe DCM and CHF. Like B6 had extensive infectious disease testing which was negative and nutritional amino acid deficiencies were ruled out. Because of this, their unrelated lineages (although the same breed, they were from different lines), different ages but similar time of presentation, we are considering common environmental factors which could precipitate DCM, including food contamination or toxin exposure. We have plasma, serum, urine and myocardial tissue samples (latter only for B6 stored at -80 Celsius in addition to food and treat samples.
	Date Problem Started:	06/22/2017
	Date of Recovery:	07/10/2017
	Concurrent Medical Problem:	No
	Outcome to Date:	Stable

Product Information:	Product Name:	Alternated feedings between: California Natural Adult Limited Ingredient Grain Free Venison & Green Lentils Recipe Dog Food and Kangaroo and Lentils
	Product Type:	Pet Food
	Lot Number:	
	Package Type:	BAG
	Package Size:	26 Pound
	Storage Conditions:	In the bag in a cabinet
	Product Use Information:	Description: the Venison and Kangaroo types were alternated depending on store availability and were fed twice daily along with Milo's kitchen treats Perceived Relatedness to Adverse Event: Possibly related
Manufacturer /Distributor Information:		
Purchase Location Information:		

Animal Information:	Name: B6
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	Type Of Species: Dog
	Type Of Breed: Schnauzer - Miniature
	Gender: Male
	Reproductive Status: Neutered
	Weight: 9.6 Kilogram
	Age: 7 Years
	Assessment of Prior Health: Excellent
	Number of Animals Given the Product: 2
	Number of Animals Reacted: 2
	Owner Information:
	Owner Information provided: Yes
	Contact:
	Name: B6
	Phone:
	Email:
	Address:
	B6
	United States
Healthcare Professional Information:	Practice Name: North Carolina State University, College of Veterinary Medicine
	Contact:
	Name: Darcy Adin
	Phone: (919) 513-6694
	Other Phone: 6145829798
	Email: dbadin@ncsu.edu
	Address: 1060 William Moore Dr Raleigh New York 27607 United States
	Practice Name: North Carolina State University, College of Veterinary Medic
	Contact:
	Name: B6
	Phone:
	Other Phone:
	Practice Name: North Carolina State University, College of Veterinary Medic
	Contact:
	Name: B6
	Phone:
	Other Phone:
Sender Information:	Name: Darcy Adin
	Address: 1060 William Moore Dr Raleigh New York 27607 United States
	Contact:
	Phone: 9195136694
	Other Phone: B6
	Email: dbadin@ncsu.edu
	Permission To Contact Sender: Yes

	Preferred Method Of Contact:	Email
	Reported to Other Parties:	Manufacturer

Additional Documents:

Report Details - EON-323515

ICSR: 2023228
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2017-07-11 17:06:59 EDT

Reported Problem:

Problem Description: Please note: Dr. Jennifer Jones was consulted prior to submission of this report. She would like to be involved in the case review 3 week history of cough treated unsuccessfully with [B6] 3 day history of inappetence and vomiting prior to presentation to [B6] for dyspnea. Radiographs showed severe pulmonary edema and echocardiogram showed severe Dilated Cardiomyopathy. There was an initial response to diuretic therapy however, he declined and was placed on the ventilator for respiratory support and continued CHF treatment. Attempts to wean off the ventilator were unsuccessful and aquaphoresis was performed. He continued to decline despite aggressive therapy and was euthanized. Infectious disease testing was negative and taurine and carnitine analysis showed adequate levels. Necropsy initially did not reveal a cause for DCM and supported alveolar injury (possibly ventilator related). A re-review of the myocardial histopathology by one of our pathologist showed myofiber vacuoles reminiscent of the changes seen in doxorubicin toxicity. Since the dog had not received doxorubicin, the pathologist recommended culturing the food for Streptomyces peucetius - the bacterium which produces doxorubicin. He also recommended testing for Fusarium spp. a fungus which produces Fumonisin B1, a toxin that produces heart failure in pigs [B6] had been fed California Naturals Adult - both kangaroo with lentils and venison with lentils along with Milo's kitchen treats. We have samples of these foods from 6/17 but not the original bags from when he was presented 2/17. These samples were provided at the time his housemate [B6] (unrelated, older miniature schnauzer) also presented with severe DCM and CHF. I will enter this dog as a separate affected patient. Both dogs had extensive infectious disease testing which was negative and nutritional amino acid deficiencies were ruled out. Because of this, their unrelated lineages (although the same breed, they were from different lines), different ages but similar time of presentation, [B6] had clinical signs at the time [B6] was treated, but didn't present with CHF for several months), we are considering common environmental factors which could precipitate DCM, including food contamination or toxin exposure.

Date Problem Started: [B6]

Concurrent Medical Problem: No

Outcome to Date: Died Euthanized

Date of Death: [B6]

Product Information:

Product Name: Alternated between: -California Natural Adult Limited Ingredient Grain Free Venison & Green Lentils and Kangaroo & Red Lentils Recipe

Product Type: Pet Food

Lot Number:

UPC: not available

Package Type: BAG

Package Size: 26 Pound

Purchase Date: 06/01/2017

Possess Unopened Product: No

Possess Opened Product: Yes

Storage Conditions: In a cabinet, in the original bag

Product Use Information:

Description: twice daily feeding The sample we have is from 6/17, however, we do not have food samples from 2/17 when both dogs started with clinical signs.

Time Interval between Product: 2 Years

		Use and Adverse Event:	
		Product Use Stopped After the Onset of the Adverse Event:	No
		Perceived Relatedness to Adverse Event:	Possibly related
		Other Foods or Products Given to the Animal During This Time Period:	Yes
	Manufacturer /Distributor Information:		
	Purchase Location Information:	Address:	United States
Animal Information:	Name:	B6	
	Type Of Species:	Dog	
	Type Of Breed:	Schnauzer - Miniature	
	Gender:	Male	
	Reproductive Status:	Neutered	
	Weight:	8.2 Kilogram	
	Age:	B6 Years	
	Assessment of Prior Health:	Excellent	
	Number of Animals Given the Product:	2	
	Number of Animals Reacted:	2	
	Owner Information:	Owner Information provided:	Yes
		Contact: Name:	B6
		Phone:	B6
		Email:	B6
		Address:	B6
			United States
	Healthcare Professional Information:	Practice Name:	North Carolina State University, College of Veterinary Medicine
		Contact: Name:	Darcy Adin
		Phone:	(919) 513-6694
		Other Phone:	6145829798
		Email:	dbadin@ncsu.edu
		Address:	1060 William Moore Dr Raleigh New York 27607 United States
		Practice Name:	North Carolina State University College of Veterinary Medici
		Contact: Name:	B6
		Phone:	B6

		Other Phone: B6
	Practice Name:	North Carolina state University, College of Veterinary Medic
	Contact:	Name: B6
		Phone: B6
		Other Phone: B6
Sender Information:	Name:	Darcy Adin
	Address:	1060 William Moore Dr Raleigh New York 27607 United States
	Contact:	Phone: 9195136694
		Other Phone: B6
		Email: dbadin@ncsu.edu
	Permission To Contact Sender:	Yes
	Preferred Method Of Contact:	Email
	Reported to Other Parties:	Manufacturer
Additional Documents:		

Report Details - EON-345822

ICSR: 2040525
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2018-01-22 17:19:17 EST

Reported Problem:

Problem Description: B6 was presented for evaluation of cough, labored breathing, multiple episodes of collapse, cardiomegaly, and suspected congestive heart failure. Congestive heart failure was confirmed with thoracic radiographs and echocardiogram revealed dilated cardiomyopathy.

Date Problem Started: 12/30/2017

Concurrent Medical Problem: Yes

Pre Existing Conditions: B6

Outcome to Date: Better/Improved/Recovering

Product Information:

Product Name: California Natural Grain-Free Kangaroo and Red Lentils Recipe

Product Type: Pet Food

Lot Number:

Package Type: BAG

Purchase Date: 01/02/2018

Possess Unopened Product: No

Possess Opened Product: Yes

Product Use Information:

Description: B6 had been eating this dog food since she first displaced signs of B6 is a puppy and food allergy was considered as a potential contributor.

Last Exposure Date: 01/10/2018

Time Interval between Product Use and Adverse Event: 6 Years

Product Use Stopped After the Onset of the Adverse Event: Yes

Adverse Event Abate After Product Stop: Unknown

Product Use Started Again: No

Perceived Relatedness to Adverse Event: Probably related

Other Foods or Products Given to the Animal During This Time Period: Yes

Manufacturer /Distributor Information:

Purchase Location Information:

Animal Information:	Name:	B6		
	Type Of Species:	Dog		
	Type Of Breed:	Mixed (Dog)		
	Gender:	Female		
	Reproductive Status:	Neutered		
	Weight:	25.1 Kilogram		
	Age:	6 Years		
	Assessment of Prior Health:	Good		
	Number of Animals Given the Product:	4		
	Number of Animals Reacted:	4		
	Owner Information:	Owner Information provided:	Yes	
		Contact:	Name:	B6
			Phone:	B6
			Email:	B6
Address:	B6	United States		
Healthcare Professional Information:	Practice Name:	B6		
	Contact:	Name:	B6	
		Phone:	B6	
		Other Phone:	B6	
Address:	B6	United States		
Sender Information:	Name:	B6		
	Address:	B6	United States	
	Contact:	Phone:	B6	
		Other Phone:	B6	
		Email:	B6	
Permission To Contact Sender:	Yes			
Preferred Method Of Contact:	Phone			
Reported to Other Parties:	Other			
Additional Documents:	Attachment:	Medical record.pdf		
	Description:	Medical record and echo report		
	Type:	Medical Records		

Attachment:	Taurine level.pdf
Description:	Taurine level
Type:	Laboratory Report
Attachment:	Listserve on kangaroo and lentil diets.pdf
Description:	Discussion amongst veterinary cardiologists of dilated cardiomyopathy in patients eating either kangaroo and lentil or vegan diets with lentils
Type:	Other

Report Details - EON-345833

ICSR: 2040529
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2018-01-22 18:21:03 EST

Reported Problem:
Problem Description: B6 had been diagnosed with a new heart murmur a couple of months earlier, then developed difficulty breathing and cough and was diagnosed with congestive heart failure. Echocardiogram showed evidence of dilated cardiomyopathy and chronic degenerative valve disease. * B6 - FDA ICSR ID 2040528
Date Problem Started: 08/18/2017
Concurrent Medical Problem: Yes
Pre Existing Conditions: B6
Outcome to Date: Died Euthanized
Date of Death: B6

Product Information:
Product Name: California Natural Grain-Free Kangaroo and Red Lentils Recipe
Product Type: Pet Food
Lot Number:
Package Type: BAG
Possess Unopened Product: No
Possess Opened Product: No
Product Use Information:
Description: B6 had been fed this product for years for management of food allergy.
Last Exposure Date: 08/24/2017
Product Use Stopped After the Onset of the Adverse Event: Yes
Adverse Event Abate After Product Stop: No
Product Use Started Again: No
Perceived Relatedness to Adverse Event: Probably related

Manufacturer /Distributor Information:

Purchase Location Information:

Animal Information:
Name: B6
Type Of Species: Dog
Type Of Breed: Retriever - Labrador
Gender: Female
Reproductive Status: Neutered
Weight: 25.6 Kilogram
Age: 5 Years

	Assessment of Prior Health:	Excellent																
	Number of Animals Given the Product:	4																
	Number of Animals Reacted:	4																
	Owner Information:	<table border="1"> <tr> <td>Owner Information provided:</td> <td>Yes</td> </tr> <tr> <td>Contact:</td> <td> <table border="1"> <tr> <td>Name:</td> <td>B6</td> </tr> <tr> <td>Phone:</td> <td></td> </tr> <tr> <td>Other Phone:</td> <td></td> </tr> <tr> <td>Email:</td> <td></td> </tr> </table> </td> </tr> <tr> <td>Address:</td> <td> <table border="1"> <tr> <td>B6</td> </tr> <tr> <td>United States</td> </tr> </table> </td> </tr> </table>	Owner Information provided:	Yes	Contact:	<table border="1"> <tr> <td>Name:</td> <td>B6</td> </tr> <tr> <td>Phone:</td> <td></td> </tr> <tr> <td>Other Phone:</td> <td></td> </tr> <tr> <td>Email:</td> <td></td> </tr> </table>	Name:	B6	Phone:		Other Phone:		Email:		Address:	<table border="1"> <tr> <td>B6</td> </tr> <tr> <td>United States</td> </tr> </table>	B6	United States
Owner Information provided:	Yes																	
Contact:	<table border="1"> <tr> <td>Name:</td> <td>B6</td> </tr> <tr> <td>Phone:</td> <td></td> </tr> <tr> <td>Other Phone:</td> <td></td> </tr> <tr> <td>Email:</td> <td></td> </tr> </table>	Name:	B6	Phone:		Other Phone:		Email:										
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Phone:																		
Other Phone:																		
Email:																		
Address:	<table border="1"> <tr> <td>B6</td> </tr> <tr> <td>United States</td> </tr> </table>	B6	United States															
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United States																		
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Phone:																		
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Address:	<table border="1"> <tr> <td>B6</td> </tr> <tr> <td>United States</td> </tr> </table>	B6	United States															
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Sender Information:	Name:																	
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	Contact:	<table border="1"> <tr> <td>Phone:</td> <td></td> </tr> <tr> <td>Other Phone:</td> <td>B6</td> </tr> <tr> <td>Email:</td> <td></td> </tr> </table>	Phone:		Other Phone:	B6	Email:											
	Phone:																	
Other Phone:	B6																	
Email:																		
Permission To Contact Sender:	Yes																	
Preferred Method Of Contact:	Phone																	
Reported to Other Parties:	Other																	
Additional Documents:	Attachment:	cardio0010.pdf																
	Description:	Initial echo report and emergency visit report at which time euthanasia was elected																
	Type:	Medical Records																

Report Details - EON-350359

ICSR: 2044946
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2018-04-02 15:19:51 EDT

Reported Problem:
Problem Description: A heart murmur was auscultated on a routine exam and patient was diagnosed on 2/26/18 with moderate dilated cardiomyopathy - ruleout idiopathic vs. taurine /amino acid responsive - with moderately decreased left ventricular contractility. Patient is on a grain free diet - Nature's Recipe Salmon and Sweet Potato. It is suspected that some grain free diets provide insufficient levels of taurine, contributing to the development of dilated cardiomyopathy. At presentation, B6 had no cough, normal appetite and attitude; no exercise intolerance. Medication management and taurine supplementation was recommended. She will be rechecked in June 2018.
Date Problem Started: 02/26/2018
Concurrent Medical Problem: Yes
Pre Existing Conditions: B6
Outcome to Date: Unknown

Product Information:
Product Name: Grain Free Easy to Digest Salmon, Sweet Potato, & Pumpkin Recipe
Product Type: Pet Food
Lot Number:
Package Type: BAG
Product Use Information:
Description: Daily as main diet
Perceived Relatedness to Adverse Event: Probably related
Manufacturer /Distributor Information:
Name: The J.M. Smucker Co.
Type(s): Manufacturer
Address: 1 Strawberry Lane
 Orrville
 Ohio
 44667
 United States
Contact:
Phone: (888) 550-9555
Web Address: www.naturesrecipe.com
Possess One or More Labels from This Product: Yes

Purchase Location Information:

Animal Information:
Name:
Type Of Species: Dog
Type Of Breed: Spaniel - Cocker American
Gender: Female
Reproductive Status: Neutered
Weight: 11.7 Kilogram
Age: 13 Years
Assessment of Prior: Good

	Health:	
	Number of Animals Given the Product:	1
	Number of Animals Reacted:	1
	Owner Information:	Owner Information provided: No
	Healthcare Professional Information:	Practice Name: B6
		Contact: Name: B6
		Phone: B6
		Email: B6
		Address: B6
		United States
		Practice Name: B6
		Contact: Name: B6
		Phone: B6
		Email: B6
Address: B6		
United States		
Type of Veterinarian:	Referred veterinarian	
Date First Seen:	02/26/2018	
Permission to Release Records to FDA:	Yes	
Sender Information:	Name:	
	Address:	B6
	United States	
	Contact: Phone:	B6
	Email:	B6
Permission To Contact Sender:	Yes	
Preferred Method Of Contact:	Email	
Reported to Other Parties:	Other	
Additional Documents:	Attachment:	Echo Report 2-26-2018.pdf
	Description:	Echo Report 2/26/18
	Type:	Echocardiogram
	Attachment:	Echo Data 2-26-18.pdf
	Description:	Echo Data 2/26/18
	Type:	Echocardiogram

Report Details - EON-350158

ICSR: 2044632
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2018-03-27 15:12:36 EDT

Reported Problem:

Problem Description: At the time of diagnosis (10/31/17), [B6] was a 13 year old female spayed Labrador retriever who had been maintained on a Zignature Kangaroo formula. She presented with a history of a progressive cough which, prior to presentation, became productive and she coughed up a small volume of pink foam (possible pulmonary edema). On examination she had a 2/6 left apical systolic heart murmur and on echo diagnosed with advanced dilated cardiomyopathy with severe left ventricular dilation, moderate to severe left ventricular systolic dysfunction, and moderate to severe left atrial dilation. Thoracic radiographs were suspicious for early congestive heart failure. A whole blood taurine level was submitted and was low at [B6]. She was treatment with [B6] taurine and L-carnitine and her diet was changed to Royal Canin Early Cardiac. At her recheck in 2/26/18, [B6] heart had improved significantly with now mild dilated cardiomyopathy with normalized left atrial dimensions, mild left ventricular dilation and low normal left ventricular systolic function. The [B6] was able to be discontinued at this time.

Date Problem Started: 10/31/2017

Concurrent Medical Problem: No

Outcome to Date: Better/Improved/Recovering

Product Information:

Product Name: Zignature Kangaroo Formula

Product Type: Pet Food

Lot Number:

Package Type: BAG

Possess Unopened Product: Unknown

Possess Opened Product: Unknown

Product Use Information:

Product Use Stopped After the Onset of the Adverse Event:	Yes
Adverse Event Abate After Product Stop:	Yes
Product Use Started Again:	No
Perceived Relatedness to Adverse Event:	Probably related
Other Foods or Products Given to the Animal During This Time Period:	Unknown

Manufacturer /Distributor Information:

Name: Pets Global - Zignature

Type(s): Manufacturer

Address: 28334 Industry Dr
 Valencia
 California
 91355
 United States

		Contact:	Phone: (661) 309-1235
			Web Address: www.zignature.com
		Possess One or More Labels from This Product:	Yes
	Purchase Location Information:		
Animal Information:	Name:	B6	
	Type Of Species:	Dog	
	Type Of Breed:	Retriever - Labrador	
	Gender:	Female	
	Reproductive Status:	Neutered	
	Weight:	33.18 Kilogram	
	Age:	13 Years	
	Assessment of Prior Health:	Good	
	Number of Animals Given the Product:	1	
	Number of Animals Reacted:	1	
	Owner Information:	Owner Information provided:	Yes
		Contact:	Name: B6
			Phone: B6
			Other Phone: B6
			Email: B6
		Address:	B6
			United States
	Healthcare Professional Information:	Practice Name:	B6
		Contact:	Name: B6
			Phone: B6
			Email: B6
		Address:	B6
			United States
		Practice Name:	B6
		Contact:	Name: B6
			Phone: B6
			Email: B6
		Address:	B6
			United States
		Type of Veterinarian:	Referred veterinarian
		Permission to Release Records:	Yes

to FDA:

Sender Information:

Name:

Address:

B6

United States

Contact:

Phone:

Email:

B6

Permission To Contact Sender: Yes

Preferred Method Of Contact: Email

Reported to Other Parties: Other

Additional Documents:

Attachment:

B6

Echo Report 2017-10-31.pdf

Description: Echocardiogram 10-31-2017

Type: Echocardiogram

Attachment:

B6

Echo Report 2018-02-26.pdf

Description: Echocardiogram 2-26-2018

Type: Echocardiogram

Attachment:

B6

Taurine Level 2017-11-03.pdf

Description: **B6** Taurine Level 11-3-2017

Type: Laboratory Report

Report Details - EON-351031

ICSR: 2045676
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2018-04-12 13:26:01 EDT

Reported Problem:
Problem Description: Feb 23, 2018 Patient presented to the cardiology service at [B6] [B6] for tachypnea. He was diagnosed with dilated cardiomyopathy and left side congestive heart failure. Whole blood taurine level was [B6] (ref 200-350, critical level <150). At the time, patient consuming Zignature Kangaroo Formula and was advised to change.
Date Problem Started: 02/22/2018
Concurrent Medical Problem: Yes
Pre Existing Conditions: [B6]
Outcome to Date: Stable

Product Information:
Product Name: Zignature Kangaroo Formula
Product Type: Pet Food
Lot Number:
Package Type: BAG
Possess Unopened Product: No
Possess Opened Product: No
Product Use Information:
Description: Owner feeding for 2-3 years prior to diagnosis.
Last Exposure Date: 03/01/2018
Time Interval between Product Use and Adverse Event: 3 Years
Product Use Stopped After the Onset of the Adverse Event: Yes
Perceived Relatedness to Adverse Event: Possibly related
Other Foods or Products Given to the Animal During This Time Period: Yes

Manufacturer /Distributor Information:
Purchase Location Name: Chewy.com
Information:

Animal Information:
Name: [B6]
Type Of Species: Dog
Type Of Breed: Retriever - Golden
Gender: Male
Reproductive Status: Neutered
Weight: 40 Kilogram

	Age:	6 Years														
	Assessment of Prior Health:	Good														
	Number of Animals Given the Product:	1														
	Number of Animals Reacted:	1														
	Owner Information:	<table border="1"> <tr> <td>Owner Information provided:</td> <td>Yes</td> </tr> <tr> <td>Contact: Name:</td> <td>B6</td> </tr> <tr> <td>Phone:</td> <td></td> </tr> <tr> <td>Address:</td> <td>B6</td> </tr> <tr> <td></td> <td>United States</td> </tr> </table>	Owner Information provided:	Yes	Contact: Name:	B6	Phone:		Address:	B6		United States				
Owner Information provided:	Yes															
Contact: Name:	B6															
Phone:																
Address:	B6															
	United States															
	Healthcare Professional Information:	<table border="1"> <tr> <td>Practice Name:</td> <td>B6</td> </tr> <tr> <td>Contact: Name:</td> <td>B6</td> </tr> <tr> <td>Phone:</td> <td></td> </tr> <tr> <td>Address:</td> <td>B6</td> </tr> <tr> <td></td> <td>United States</td> </tr> <tr> <td>Type of Veterinarian:</td> <td>Referred veterinarian</td> </tr> <tr> <td>Date First Seen:</td> <td>02/23/2018</td> </tr> </table>	Practice Name:	B6	Contact: Name:	B6	Phone:		Address:	B6		United States	Type of Veterinarian:	Referred veterinarian	Date First Seen:	02/23/2018
Practice Name:	B6															
Contact: Name:	B6															
Phone:																
Address:	B6															
	United States															
Type of Veterinarian:	Referred veterinarian															
Date First Seen:	02/23/2018															
Sender Information:	Name:															
	Address:	B6														
		United States														
	Contact: Phone:	B6														
	Email:															
	Reporter Wants to Remain Anonymous:	No														
	Permission To Contact Sender:	Yes														
	Preferred Method Of Contact:	Email														
	Reported to Other Parties:	None														
Additional Documents:																

Report Details - EON-356326

ICSR: 2049281
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2018-06-12 11:47:05 EDT

Reported Problem:
Problem Description: Presented as ER case after evaluation at [B6] the previous afternoon. Owner report distended and uncomfortable stomach, with a decrease in activity and an increase in vagal collapse episodes, that have been associated with bowel movements. [B6] appetite is also decreased and he vomited after one collapse episode. The collapse episodes have been occurring more frequently over the last few days, with at least 1 occurring each day. [B6] removed 1500ml of fluid from [B6] abdomen and gave him 2mg/kg injection of [B6].
Date Problem Started: 05/28/2018
Concurrent Medical Problem: Yes
Pre Existing Conditions: B6
Outcome to Date: Stable

Product Information:
Product Name: Zignature Lamb
Product Type: Pet Food
Lot Number:
Package Type: BAG
Possess Unopened Product: No
Possess Opened Product: Yes
Product Use Information:
Description: [B6] was fed 1 cup dry food BID since May 2015. He also receives Fruitable Treats, peanut, butter, and Fish Oil-1000 mg BID.
First Exposure Date: 05/01/2015
Product Use Stopped After the Onset of the Adverse Event: No
Perceived Relatedness to Adverse Event: Possibly related
Other Foods or Products Given to the Animal During This Time Period: Yes
Manufacturer /Distributor Information:
Purchase Location Information: Address: [B6] United States

Animal Information:
Name: [B6]
Type Of Species: Dog
Type Of Breed: Bulldog
Gender: Male
Reproductive Status: Neutered

	Weight: 28.1 Kilogram
	Age: 9 Years
	Assessment of Prior Health: Good
	Number of Animals Given the Product: 3
	Number of Animals Reacted: 3
	Owner Information:
	Owner Information provided: Yes
	Contact: Name: B6 Phone: B6 Email: B6
	Address: B6 United States
	Healthcare Professional Information:
	Practice Name: B6
	Contact: Name: B6 Phone: B6 Other Phone: B6 Email: B6
	Address: B6 United States
Sender Information:	Name: B6
	Address: B6 United States
	Contact: Phone: B6 Other Phone: B6 Email: B6
	Permission To Contact Sender: Yes
	Preferred Method Of Contact: Email
Additional Documents:	Attachment: cardio0053.pdf
	Description: Echo report, rDVM records, recheck, diet hx form. O declined taurine level,
	Type: Medical Records

Report Details - EON-358119

ICSR: 2051190
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2018-07-02 14:28:07 EDT

Reported Problem:
Problem Description: Presented 6/18/18 for heart murmur evaluation, which was first documented 3 years ago. Murmur is now progressive and [B6] has also developed a cough in March. Diagnosed with tracheal collapse at that time due to radiographs. [B6] has good energy levels and the owner is restricting her activity since March. [B6] has a history of food allergies and was placed on Zignature Kangaroo and Lentil diet about 2 years ago.
Date Problem Started: 06/18/2018
Concurrent Medical Problem: Yes
Pre Existing Conditions: Heart murmur documented 1 year prior to diet. Medications include [B6]
Outcome to Date: Better/Improved/Recovering

Product Information:
Product Name: Zignature Kangaroo and Lentil
Product Type: Pet Food
Lot Number:
Package Type: BAG
Possess Unopened Product: No
Possess Opened Product: Yes
Product Use Information:
Description: 1/3 cup BID since 2016.
Time Interval between Product Use and Adverse Event: 1 Years
Product Use Stopped After the Onset of the Adverse Event: No
Perceived Relatedness to Adverse Event: Probably related
Other Foods or Products Given to the Animal During This Time Period: Yes

Manufacturer /Distributor Information:
Purchase Location Information: Address: [B6]
 United States

Animal Information:
Name: [B6]
Type Of Species: Dog
Type Of Breed: Maltese
Gender: Female
Reproductive Status: Neutered
Weight: 4.9 Kilogram
Age: 12 Years

	Assessment of Prior Health:	Good														
	Number of Animals Reacted:	1														
	Owner Information:	<table border="1"> <tr> <td>Owner Information provided:</td> <td>Yes</td> </tr> <tr> <td>Contact:</td> <td> <table border="1"> <tr> <td>Name:</td> <td rowspan="3">B6</td> </tr> <tr> <td>Phone:</td> </tr> <tr> <td>Other Phone:</td> </tr> <tr> <td>Email:</td> <td></td> </tr> </table> </td> </tr> <tr> <td>Address:</td> <td> <table border="1"> <tr> <td>B6</td> </tr> <tr> <td>United States</td> </tr> </table> </td> </tr> </table>	Owner Information provided:	Yes	Contact:	<table border="1"> <tr> <td>Name:</td> <td rowspan="3">B6</td> </tr> <tr> <td>Phone:</td> </tr> <tr> <td>Other Phone:</td> </tr> <tr> <td>Email:</td> <td></td> </tr> </table>	Name:	B6	Phone:	Other Phone:	Email:		Address:	<table border="1"> <tr> <td>B6</td> </tr> <tr> <td>United States</td> </tr> </table>	B6	United States
	Owner Information provided:	Yes														
Contact:	<table border="1"> <tr> <td>Name:</td> <td rowspan="3">B6</td> </tr> <tr> <td>Phone:</td> </tr> <tr> <td>Other Phone:</td> </tr> <tr> <td>Email:</td> <td></td> </tr> </table>	Name:	B6	Phone:	Other Phone:	Email:										
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Address:	<table border="1"> <tr> <td>B6</td> </tr> <tr> <td>United States</td> </tr> </table>	B6	United States													
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Practice Name:	B6															
Contact:	<table border="1"> <tr> <td>Name:</td> <td rowspan="3">B6</td> </tr> <tr> <td>Phone:</td> </tr> <tr> <td>Other Phone:</td> </tr> <tr> <td>Email:</td> <td></td> </tr> </table>	Name:	B6	Phone:	Other Phone:	Email:										
Name:	B6															
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Address:	<table border="1"> <tr> <td>B6</td> </tr> <tr> <td>United States</td> </tr> </table>	B6	United States													
B6																
United States																

Sender Information:	Name:	B6			
	Address:	<table border="1"> <tr> <td>B6</td> </tr> <tr> <td>United States</td> </tr> </table>	B6	United States	
	B6				
	United States				
Contact:	<table border="1"> <tr> <td>Phone:</td> <td rowspan="3">B6</td> </tr> <tr> <td>Other Phone:</td> </tr> <tr> <td>Email:</td> </tr> </table>	Phone:	B6	Other Phone:	Email:
Phone:	B6				
Other Phone:					
Email:					
Permission To Contact Sender:	Yes				
Preferred Method Of Contact:	Email				
Reported to Other Parties:	None				

Additional Documents:	Attachment:	cardio0009.pdf
	Description:	echo report, taurine level, diet history
	Type:	Medical Records

Report Details - EON-358128

ICSR: 2051197
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2018-07-02 16:02:14 EDT

Reported Problem:

Problem Description: Developed dry, harsh coughing in late May, which rDVM initially treated with [B6]. 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

Date Problem Started: 05/29/2018

Concurrent Medical Problem: Yes

Pre Existing Conditions: [B6] Rx'ed [B6] which caused GI upset. Owner feeding bland diet of lean ground beef and rice for 3 weeks. Recently added in canned Blue Buffalo to help medicate [B6]

Outcome to Date: Better/Improved/Recovering

Product Information:

Product Name: Zignature Kangaroo and Lentil

Product Type: Pet Food

Lot Number:

Package Type: BAG

Possess Unopened Product: Unknown

Possess Opened Product: Yes

Product Use Information:

Description: Zignature diet Fed BID for the last 12 months; also offered Venison Jerky and bully sticks as treats. For the past 3 weeks, owner has offered bland diet of 85-93% lean ground beef and rice at 2-4 cups a day, as well as canned Blue Buffalo for administering medications.

Product Use Stopped After the Onset of the Adverse Event: No

Perceived Relatedness to Adverse Event: Probably related

Other Foods or Products Given to the Animal During This Time Period: Yes

Manufacturer /Distributor Information:

Purchase Location Information: Address: [B6] United States

Animal Information:

Name: [B6]

Type Of Species: Dog

Type Of Breed: Mixed (Dog)

	Gender: Male
	Reproductive Status: Neutered
	Weight: 21.3 Kilogram
	Age: 9 Years
	Assessment of Prior Health: Fair
	Number of Animals Reacted: 1
	Owner Information: Yes
	Owner Information provided:
	Contact: Name: B6
	Phone: B6
	Email: B6
	Address: B6
	United States
	Healthcare Professional Information: Practice Name: B6
	Contact: Name: B6
	Phone: B6
	Other Phone: B6
	Email: B6
	Address: B6
	United States
Sender Information:	Name: B6
	Address: B6
	United States
	Contact: Phone: B6
	Other Phone: B6
	Email: B6
	Permission To Contact Sender: Yes
	Preferred Method Of Contact: Email
	Reported to Other Parties: None
Additional Documents:	Attachment: cardio0012.pdf
	Description: echo report, diet hx, labwork attached
	Type: Medical Records

From: PFR Event <pfpreventcreation@fda.hhs.gov>
To: Cleary, Michael *; HQ Pet Food Report Notification; B6
Sent: 2/24/2019 10:08:57 PM
Subject: Acana: Lisa Freeman - EON-380708
Attachments: 2063115-report.pdf; 2063115-attachments.zip

A PFR Report has been received and PFR Event [EON-380708] has been created in the EON System.

A "PDF" report by name "2063115-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 "2063115-attachments.zip" and is attached to this email notification.

Below is the summary of the report:

EON Key: EON-380708

ICSR #: 2063115

EON Title: PFR Event created for Acana Natural Balance Petcurean (see diet history for additional details); 2063115

AE Date	02/16/2019	Number Fed/Exposed	1
Best By Date		Number Reacted	1
Animal Species	Dog	Outcome to Date	Stable
Breed	Terrier - Bull - American Pit		
Age	B6 Years		
District Involved	PFR-New England DO		

Product information

Individual Case Safety Report Number: 2063115

Product Group: Pet Food

Product Name: Acana, Natural Balance, Petcurean (see diet history for additional details)

Description: DCM and CHF diagnosed 2/16/19. Eating multiple BEG diets Taurine and troponin pending Dog changed to Purina HA vegetarian dry while in hospital and owner has continued this. Will try switching to Pro Plan Sensitive Skin and Stomach Salmon when bag of HA runs out. If she tolerates that, will stay on it. If not, will switch back to HA since she's done well on that.

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, Natural Balance, Petcurean (see diet history for additional details)		

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-380708>

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=397717>

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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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.

Report Details - EON-380708

ICSR: 2063115
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2019-02-24 17:00:13 EST

Reported Problem:

Problem Description: DCM and CHF diagnosed 2/16/19. Eating multiple BEG diets Taurine and troponin pending Dog changed to Purina HA vegetarian dry while in hospital and owner has continued this. Will try switching to Pro Plan Sensitive Skin and Stomach Salmon when bag of HA runs out. If she tolerates that, will stay on it. If not, will switch back to HA since she's done well on that.

Date Problem Started: 02/16/2019

Concurrent Medical Problem: Yes

Pre Existing Conditions: Diarrhea would develop 2-3 weeks after starting a new food. Owner rotated foods to try to avoid this.

Outcome to Date: Stable

Product Information:

Product Name: Acana, Natural Balance, Petcurean (see diet history for additional details)

Product Type: Pet Food

Lot Number:

Package Type: BAG

Product Use Information: **Description:** Please see diet history for more info ("Natural Products" written on diet history form is "Natural Balance")

Manufacturer /Distributor Information:

Purchase Location Information:

Animal Information:

Name: B6

Type Of Species: Dog

Type Of Breed: Terrier - Bull - American Pit

Gender: Female

Reproductive Status: Neutered

Weight: 18 Kilogram

Age: B6 Years

Assessment of Prior Health: Excellent

Number of Animals Given the Product: 1

Number of Animals Reacted: 1

Owner Information: Owner Yes

Information provided:

Contact Name: B6

Phone: B6

Email: B6

Address: B6

United States

Healthcare Professional Information: **Practice Name:** Tufts Cummings School of Veterinary Medicine

		Contact: Name: Lisa Freeman Phone: (508) 887-4523 Email: lisa.freeman@tufts.edu
		Address: 200 Westboro Rd North Grafton Massachusetts 01536 United States
Sender Information:	Name:	Lisa Freeman
	Address:	200 Westboro Rd North Grafton Massachusetts 01536 United States
	Contact: Phone:	5088874523
	Contact: Email:	lisa.freeman@tufts.edu
	Permission To Contact Sender:	Yes
	Preferred Method Of Contact:	Email
Additional Documents:	Attachment:	rpt_medical_record_preview.pdf
	Description:	Medical records
	Type:	Medical Records

Client:

B6

Address:

All Medical Records

Patient: **B6**

Breed: Pit Bull

DOB: **B6**

Species: Canine

Sex: Female
(Spayed)

Home Phone: **B6**

Work Phone: () -

Cell Phone: () -

Referring Information

B6

Client:

B6

Patient:

Initial Complaint:

Emergency

SOAP Text

B6

9:00AM -

B6

Subjective

NEW VISIT (ER)

Doctor: **B6**

Student: **B6** V'20

Presenting complaint: CHF

Referral visit? **B6**

Diagnostics completed prior to visit: rads

Chest x-rays (at rDVM) - in ER email

HISTORY:

Signalment: 5yo FS Pitbull

Current history:

Coughing 2-3 weeks ago - after physical exercise gotten worse after any exercise, hacking some fluid a little productive, labored breathing, low energy. still eating/drinking, normal bathroom, no v/d. lost weight, looking skinny.

Prior medical history: allergies

Current medications: none

Diet: dry. 2 cups a day (o unsure exactly which diet - rotates through 4 different types of food)

Vaccination status/flea & tick preventative use: UTD, no heartworm preventative or flea/tick

Client: **B6**
Patient: **B6**

Travel history: none

EXAM:

B6

C/V: grade 2/6 apical systolic murmur, no arrhythmia, ssfp

RESP: harsh lung sounds bilaterally/wheezes; moderate/severe respiratory effort

B6

ASSESSMENT:

A1: Congestive heart failure r/o secondary to DCM vs other

PLAN:

Diagnostics:

- AFAST/TFAST: B lines, subjectively decreased contractility of heart, mild amount of abdominal effusion; scant pericardial effusion

B6

- Chest x-rays (at rDVM) - in ER email

- Diffuse interstitial pattern bilaterally, pulmonary vessels not easily visible. Severe cardiomegaly with left mainstem bronchi compression and trachea is dorsally deviated.

Treatments/monitoring:

B6

Client communication:

Discussed hospitalizing for supportive care to manage CHF as well as diagnostics (bloodwork, BP, echo, etc) to diagnose underlying heart disease and get her on the right medications. O ok with this plan.

Deposit & estimate status: **B6**

Client: **B6**
Patient: **B6**

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

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

SOAP Text **B6** 9:49AM **B6**

DUPLICATE. IGNORE.

SOAP Text **B6** 10:25AM **B6**

B6

Signalment: 5yo FS Pitbull presenting for biventricular heart failure due to DCM, respiratory distress. Day 1 of hospitalization

Presenting history:

Coughing 2-3 weeks ago - after physical exercise gotten worse after any exercise, hacking some fluid a little productive, labored breathing, low energy. still eating/drinking, normal bathroom, no v/d. lost weight, looking skinny to the owner.

Prior medical history: allergies

Current medications: none

Diet: dry. 2 cups a day (o unsure exactly which diet - rotates through 4 different types of food)- brought in samples to fill out forms for the diet study she is enrolled in.

Vaccination status/flea & tick preventative use: UTD, no heartworm preventative or flea/tick

Travel history: none

EXAM:

B6

C/V: grade 2/6 apical systolic murmur, no arrhythmia, ssfp

B6

ASSESSMENT:

A1: Congestive heart failure r/o secondary to DCM vs other

Client: **B6**
Patient: **B6**

Diagnostics performed **B6**

- AFAST/TFAST: B lines, subjectively decreased contractility of heart, mild amount of abdominal effusion; scant pericardial effusion

B6

B6

- BP (did not obtain because patient was in respiratory distress)
- Chest x-rays (at rDVM) - in ER email
- Diffuse interstitial pattern bilaterally, pulmonary vessels not easily visible. Severe cardiomegaly with left mainstem bronchi compression and trachea is dorsally deviated.

Diagnostics performed **B6**

B6

PLAN:

Treatments/monitoring:

B6

Deposit & estimate status **B6**

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

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

SOAP Text **B6** 11:55AM - **B6**

Signalment: 5yo FS Pitbull presenting for biventricular heart failure due to DCM, respiratory distress. Day 1 of hospitalization

Presenting history:

Coughing 2-3 weeks ago - after physical exercise gotten worse after any exercise, hacking some fluid a little productive, labored breathing, low energy. still eating/drinking, normal bathroom, no v/d. lost weight, looking skinny to the owner.

Prior medical history: allergies

Current medications: none

Diet: dry. 2 cups a day (o unsure exactly which diet - rotates through 4 different types of food)- brought in samples to fill out forms for the diet study she is enrolled in.

Vaccination status/flea & tick preventative use: UTD, no heartworm preventative or flea/tick

Travel history: none

Overnight update:

Very bright, RR 24-36, eating well and passing urine frequently.

Subjective

Client: **B6**
Patient: **B6**

EXAM, GENERAL

Subjective (S)
Very BAR

Objective (O)

B6

H/L: regular rhythm, II/VI murmur LHS. Strong and synchronous peripheral pulses.

B6

ASSESSMENT:

A1: Dilated Cardiomyopathy

Diagnostics performed

- AFAST/TFAST: B lines, subjectively decreased contractility of heart, mild amount of abdominal effusion; scant pericardial effusion

B6

- BP (did not obtain because patient was in respiratory distress)
- Chest x-rays (at rDVM) - in ER email
 - Diffuse interstitial pattern bilaterally, pulmonary vessels not easily visible. Severe cardiomegaly with left mainstem bronchi compression and trachea is dorsally deviated.

Diagnostics performed

B6

Plan:

B6

SOAP completed by **B6** BVSc

Initial Complaint:

Recheck - **B6** DCM Study

Client: B6
Patient:

SOAP Text B6:53PM - 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: Pit Bull
 Sex: Female (Spayed)
 Age: **B6** Years Old

Lab Results Report

Nova Full Panel-ICU **B6** 9:28:25 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	



B6

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** 9:36:03 AM Accession ID: **B6**

Test	Results	Reference Range	Units
Blood Glucose (Glucometer) - FHSA	B6	0 - 0	mg/dl

Nova Full Panel-ICU **B6** 9:56:38 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** 10:12:18 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
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

Nova Full Panel-ICU **B6** 9:19:25 AM Accession ID: **B6**

Test	Results	Reference Range	Units
SO2%	B6	94 - 100	%
HCT (POC)	B6	38 - 48	%

Client: **B6**
 Patient: **B6**

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
PO2		80 - 100	mmHg
HCO3		18 - 24	mmol/L

B6

Nova Full Panel-ICU **B6** 9:27:23 AM Accession ID: **B6**

Test	Results	Reference Range	Units
TS (FHSA)		0 - 0	g/dl
PCV **	B6	0 - 0	%
TS (FHSA)		0 - 0	g/dl



B6

Vitals Results

B6

9:09:11 AM
 9:09:38 AM
 9:10:28 AM
 9:45:06 AM
 10:45:50 AM

Weight (kg)
 Notes
 Lasix treatment note
 Lasix treatment note
 Lasix treatment note

B6

Client:
Patient:

B6

Vitals Results

11:21:04 AM	FiO2 (%)
11:21:11 AM	Respiratory Rate
11:21:41 AM	Nursing note
12:19:43 PM	Nursing note
12:37:05 PM	Quantify IV Fluids (CRI) in mls
12:37:06 PM	Catheter Assessment
12:37:44 PM	FiO2 (%)
12:38:25 PM	Respiratory Rate
12:39:49 PM	Heart Rate (/min)
1:47:10 PM	Eliminations
1:48:12 PM	FiO2 (%)
2:01:58 PM	FiO2 (%)
2:02:58 PM	Heart Rate (/min)
2:06:40 PM	Respiratory Rate
2:07:31 PM	Quantify IV Fluids (CRI) in mls
2:07:32 PM	Catheter Assessment
2:11:44 PM	Lasix treatment note
3:19:35 PM	Nursing note
3:20:12 PM	Respiratory Rate
3:20:33 PM	FiO2 (%)
3:20:55 PM	Quantify IV Fluids (CRI) in mls
3:45:02 PM	Quantify IV Fluids (CRI) in mls
3:45:03 PM	Catheter Assessment
4:07:19 PM	FiO2 (%)
4:07:46 PM	Respiratory Rate
4:09:20 PM	Eliminations
4:18:29 PM	Heart Rate (/min)
4:18:40 PM	Quantify IV Fluids (CRI) in mls
4:18:41 PM	Catheter Assessment
5:12:04 PM	Respiratory Rate
5:12:14 PM	FiO2 (%)
5:13:48 PM	Eliminations
5:17:48 PM	Amount eaten
5:19:29 PM	Heart Rate (/min)
5:19:47 PM	FiO2 (%)
5:26:16 PM	Lasix treatment note
5:47:32 PM	Respiratory Rate

B6

B6

Client:
Patient:

B6

Vitals Results

5:47:46 PM	Quantify IV Fluids (CRI) in mls
5:47:47 PM	Catheter Assessment
6:01:17 PM	Eliminations
6:54:17 PM	FiO2 (%)
6:54:24 PM	Respiratory Rate
7:11:55 PM	Heart Rate (/min)
7:12:08 PM	Temperature (F)
7:44:34 PM	FiO2 (%)
7:44:43 PM	Quantify IV Fluids (CRI) in mls
7:44:44 PM	Catheter Assessment
7:45:08 PM	Respiratory Rate
9:03:32 PM	FiO2 (%)
9:03:41 PM	Respiratory Rate
9:17:37 PM	Weight (kg)
9:18:17 PM	Heart Rate (/min)
9:19:05 PM	Quantify IV Fluids (CRI) in mls
9:19:06 PM	Catheter Assessment
9:19:42 PM	Eliminations
9:21:04 PM	Lasix treatment note
9:45:41 PM	Respiratory Rate
9:45:54 PM	FiO2 (%)
10:49:36 PM	Respiratory Rate
10:50:01 PM	FiO2 (%)
11:31:31 PM	Quantify IV Fluids (CRI) in mls
11:31:32 PM	Catheter Assessment
11:32:09 PM	Heart Rate (/min)
11:46:46 PM	Respiratory Rate
11:47:01 PM	FiO2 (%)
12:46:34 AM	FiO2 (%)
12:46:44 AM	Respiratory Rate
1:07:50 AM	Eliminations
1:38:01 AM	Quantify IV Fluids (CRI) in mls
1:38:02 AM	Catheter Assessment
1:39:26 AM	Heart Rate (/min)
1:56:06 AM	FiO2 (%)
1:56:16 AM	Respiratory Rate
3:06:11 AM	FiO2 (%)
3:06:25 AM	Respiratory Rate
3:12:19 AM	Lasix treatment note
3:12:37 AM	Quantify IV Fluids (CRI) in mls
3:12:38 AM	Catheter Assessment

B6

B6

Client:
Patient:

B6

Vitals Results

4:06:40 AM	Respiratory Rate
4:07:00 AM	FiO2 (%)
4:07:08 AM	Heart Rate (/min)
4:49:25 AM	FiO2 (%)
4:49:37 AM	Respiratory Rate
4:52:42 AM	Eliminations
4:59:34 AM	Amount eaten
5:24:06 AM	Nursing note
5:24:55 AM	Heart Rate (/min)
5:45:41 AM	Respiratory Rate
5:45:53 AM	FiO2 (%)
6:44:05 AM	FiO2 (%)
6:44:44 AM	Respiratory Rate
7:57:10 AM	Respiratory Rate
7:57:26 AM	FiO2 (%)
7:59:14 AM	Nursing note
8:02:34 AM	Heart Rate (/min)
8:05:21 AM	Temperature (F)
8:08:24 AM	Lasix treatment note
8:14:38 AM	Weight (kg)
8:16:10 AM	Eliminations
9:02:29 AM	FiO2 (%)
9:03:17 AM	Respiratory Rate
10:02:20 AM	FiO2 (%)
10:04:29 AM	Heart Rate (/min)
10:08:31 AM	Respiratory Rate
10:59:22 AM	FiO2 (%)
10:59:52 AM	Respiratory Rate
11:47:25 AM	FiO2 (%)
11:47:53 AM	Respiratory Rate
11:53:10 AM	Heart Rate (/min)
11:53:48 AM	Eliminations
12:59:52 PM	FiO2 (%)
1:00:37 PM	Respiratory Rate
2:17:38 PM	Respiratory Rate
2:17:51 PM	Heart Rate (/min)
2:22:20 PM	Lasix treatment note
2:59:31 PM	Respiratory Rate
3:30:08 PM	Heart Rate (/min)
3:52:22 PM	Respiratory Rate
4:58:59 PM	Respiratory Rate

B6

B6

Client: **B6**
Patient:

Vitals Results

5:16:42 PM	Amount eaten
5:17:09 PM	Eliminations
5:28:18 PM	Heart Rate (/min)
6:03:04 PM	Respiratory Rate
6:54:20 PM	Respiratory Rate
6:56:33 PM	Weight (kg)
7:20:10 PM	Temperature (F)
7:20:22 PM	Heart Rate (/min)
7:56:01 PM	Respiratory Rate
8:17:54 PM	Eliminations
9:00:37 PM	Respiratory Rate
9:15:46 PM	Heart Rate (/min)
9:41:52 PM	Respiratory Rate
9:43:34 PM	Lasix treatment note
10:40:52 PM	Respiratory Rate
11:31:23 PM	Heart Rate (/min)
11:31:28 PM	Respiratory Rate
12:28:12 AM	Respiratory Rate
1:05:10 AM	Eliminations
1:12:38 AM	Heart Rate (/min)
1:12:45 AM	Respiratory Rate
2:47:00 AM	Respiratory Rate
3:16:57 AM	Heart Rate (/min)
3:37:24 AM	Respiratory Rate
4:23:24 AM	Respiratory Rate
5:36:11 AM	Amount eaten
5:36:20 AM	Heart Rate (/min)
5:36:27 AM	Respiratory Rate
5:40:28 AM	Lasix treatment note
5:59:29 AM	Eliminations
6:21:11 AM	Eliminations
6:51:01 AM	Respiratory Rate
7:42:21 AM	Weight (kg)
8:08:18 AM	Temperature (F)
8:08:28 AM	Respiratory Rate
8:08:42 AM	Heart Rate (/min)
9:06:23 AM	Eliminations
9:07:04 AM	Respiratory Rate

B6

B6

Client: **B6**
Patient:

Vitals Results

B6	09:20:15 AM	Catheter Assessment	B6
	10:02:30 AM	Heart Rate (/min)	
	10:02:36 AM	Respiratory Rate	
	10:02:52 AM	Eliminations	
	11:09:18 AM	Respiratory Rate	
	12:17:30 PM	Respiratory Rate	
	12:17:40 PM	Heart Rate (/min)	
	12:17:48 PM	Eliminations	
	1:05:31 PM	Respiratory Rate	
	1:36:34 PM	Catheter Assessment	
	1:36:42 PM	Respiratory Rate	
	1:36:58 PM	Heart Rate (/min)	
	1:25:45 PM	Weight (kg)	
	1:53:45 PM	Lasix treatment note	

Patient History

B6	09:09 AM	Vitals	B6
	09:09 AM	Vitals	
	09:09 AM	Purchase	
	09:10 AM	Purchase	
	09:10 AM	Purchase	
	09:10 AM	Vitals	
	09:28 AM	Purchase	
	09:36 AM	Labwork	
	09:45 AM	Vitals	
	09:55 AM	Treatment	
	09:56 AM	Labwork	
	09:57 AM	Treatment	
	10:04 AM	Prescription	
	10:08 AM	Prescription	
	10:45 AM	Vitals	
	10:55 AM	Treatment	
	11:21 AM	Treatment	
	11:21 AM	Vitals	
	11:21 AM	Treatment	
	11:21 AM	Vitals	
11:21 AM	Vitals		
11:23 AM	Purchase		
11:23 AM	Purchase		

Client:
Patient:

B6

Patient History

11:42 AM	UserForm
11:54 AM	Treatment
11:56 AM	Purchase
11:56 AM	Purchase
12:19 PM	Vitals
12:37 PM	Treatment
12:37 PM	Vitals
12:37 PM	Vitals
12:37 PM	Vitals
12:37 PM	Treatment
12:37 PM	Vitals
12:38 PM	Treatment
12:38 PM	Vitals
12:39 PM	Treatment
12:39 PM	Vitals
01:47 PM	Treatment
01:47 PM	Vitals
01:48 PM	Treatment
01:48 PM	Vitals
02:01 PM	Treatment
02:01 PM	Vitals
02:02 PM	Treatment
02:02 PM	Vitals
02:06 PM	Treatment
02:06 PM	Treatment
02:06 PM	Vitals
02:06 PM	Treatment
02:07 PM	Treatment
02:07 PM	Vitals
02:07 PM	Vitals
02:11 PM	Vitals
02:11 PM	Treatment
03:19 PM	Vitals
03:20 PM	Treatment
03:20 PM	Vitals
03:20 PM	Treatment
03:20 PM	Vitals

B6

B6

Client:
Patient:

B6

Patient History

03:20 PM	Vitals
03:22 PM	Treatment
03:23 PM	Treatment
03:45 PM	Treatment
03:45 PM	Vitals
03:45 PM	Vitals
04:07 PM	Treatment
04:07 PM	Vitals
04:07 PM	Treatment
04:07 PM	Vitals
04:09 PM	Vitals
04:18 PM	Treatment
04:18 PM	Vitals
04:18 PM	Treatment
04:18 PM	Vitals
04:18 PM	Vitals
04:38 PM	Purchase
04:39 PM	Purchase
05:12 PM	Treatment
05:12 PM	Vitals
05:12 PM	Treatment
05:12 PM	Vitals
05:12 PM	Treatment
05:13 PM	Treatment
05:13 PM	Vitals
05:17 PM	Treatment
05:17 PM	Treatment
05:17 PM	Vitals
05:18 PM	Treatment
05:19 PM	Treatment
05:19 PM	Vitals
05:19 PM	Treatment
05:19 PM	Vitals
05:26 PM	Vitals
05:27 PM	Treatment
05:47 PM	Treatment
05:47 PM	Vitals
05:47 PM	Treatment
05:47 PM	Vitals

B6

B6

Client:
Patient:

B6

Patient History

05:47 PM	Vitals
06:01 PM	Vitals
06:54 PM	Treatment
06:54 PM	Vitals
06:54 PM	Treatment
06:54 PM	Vitals
07:11 PM	Treatment
07:11 PM	Vitals
07:12 PM	Treatment
07:12 PM	Vitals
07:44 PM	Treatment
07:44 PM	Vitals
07:44 PM	Treatment
07:44 PM	Vitals
07:44 PM	Vitals
07:45 PM	Treatment
07:45 PM	Vitals
09:03 PM	Treatment
09:03 PM	Vitals
09:03 PM	Treatment
09:03 PM	Vitals
09:04 PM	Treatment
09:17 PM	Treatment
09:17 PM	Vitals
09:18 PM	Treatment
09:18 PM	Vitals
09:19 PM	Treatment
09:19 PM	Vitals
09:19 PM	Vitals
09:19 PM	Treatment
09:19 PM	Vitals
09:21 PM	Vitals
09:21 PM	Treatment
09:45 PM	Treatment
09:45 PM	Vitals
09:45 PM	Treatment
09:45 PM	Vitals
10:49 PM	Treatment
10:49 PM	Vitals
10:50 PM	Treatment
10:50 PM	Vitals

B6

B6

Client: **B6**
Patient:

Patient History

11:07 PM	Purchase
11:31 PM	Treatment
11:31 PM	Vitals
11:31 PM	Vitals
11:32 PM	Treatment
11:32 PM	Vitals
11:46 PM	Treatment
11:46 PM	Vitals
11:47 PM	Treatment
11:47 PM	Vitals
12:46 AM	Treatment
12:46 AM	Vitals
12:46 AM	Treatment
12:46 AM	Vitals
01:04 AM	Treatment
01:07 AM	Treatment
01:07 AM	Vitals
01:08 AM	Treatment
01:38 AM	Treatment
01:38 AM	Vitals
01:38 AM	Vitals
01:39 AM	Treatment
01:39 AM	Vitals
01:56 AM	Treatment
01:56 AM	Vitals
01:56 AM	Treatment
01:56 AM	Vitals
03:06 AM	Treatment
03:06 AM	Vitals
03:06 AM	Treatment
03:06 AM	Vitals
03:12 AM	Vitals
03:12 AM	Treatment
03:12 AM	Treatment
03:12 AM	Vitals
03:12 AM	Vitals
04:06 AM	Treatment
04:06 AM	Vitals
04:07 AM	Treatment

B6

B6

Client: **B6**
Patient:

Patient History

04:07 AM Vitals
04:07 AM Treatment
04:07 AM Vitals
04:49 AM Treatment

04:49 AM Vitals
04:49 AM Treatment
04:49 AM Vitals
04:52 AM Treatment
04:52 AM Vitals
04:53 AM Treatment
04:59 AM Treatment

04:59 AM Vitals
05:00 AM Treatment

05:24 AM Vitals
05:24 AM Treatment
05:24 AM Vitals
05:45 AM Treatment
05:45 AM Vitals
05:45 AM Treatment

05:45 AM Vitals
06:44 AM Treatment

06:44 AM Vitals
06:44 AM Treatment
06:44 AM Vitals
07:57 AM Treatment
07:57 AM Vitals
07:57 AM Treatment

07:57 AM Vitals
07:59 AM Vitals
08:02 AM Treatment
08:02 AM Vitals
08:05 AM Treatment
08:05 AM Vitals
08:08 AM Vitals
08:08 AM Treatment
08:14 AM Treatment
08:14 AM Vitals
08:16 AM Vitals
09:02 AM Treatment

09:02 AM Vitals
09:03 AM Treatment
09:03 AM Vitals
09:10 AM Treatment

B6

B6

Client:
Patient:

B6

Patient History

09:10 AM	Treatment
09:14 AM	Treatment
10:02 AM	Treatment
10:02 AM	Vitals
10:04 AM	Treatment
10:04 AM	Vitals
10:08 AM	Treatment
10:08 AM	Vitals
10:12 AM	Purchase
10:13 AM	Treatment
10:59 AM	Treatment
10:59 AM	Vitals
10:59 AM	Treatment
10:59 AM	Vitals
11:05 AM	Purchase
11:05 AM	Purchase
11:30 AM	Purchase
11:45 AM	Deleted Reason
11:47 AM	Treatment
11:47 AM	Vitals
11:47 AM	Treatment
11:47 AM	Vitals
11:53 AM	Treatment
11:53 AM	Vitals
11:53 AM	Vitals
12:59 PM	Treatment
12:59 PM	Vitals
01:00 PM	Treatment
01:00 PM	Vitals
01:01 PM	Treatment
02:13 PM	Treatment
02:17 PM	Treatment
02:17 PM	Vitals
02:17 PM	Treatment
02:17 PM	Vitals
02:22 PM	Vitals
02:22 PM	Treatment
02:59 PM	Treatment
02:59 PM	Vitals
03:30 PM	Treatment
03:30 PM	Vitals

B6

B6

Client:
Patient:

B6

Patient History

03:52 PM	Treatment
03:52 PM	Vitals
04:58 PM	Treatment
04:58 PM	Vitals
05:02 PM	Treatment
05:03 PM	UserForm
05:16 PM	Treatment
05:16 PM	Vitals
05:17 PM	Treatment
05:17 PM	Treatment
05:17 PM	Treatment
05:17 PM	Vitals
05:28 PM	Treatment
05:28 PM	Vitals
06:03 PM	Treatment
06:03 PM	Vitals
06:54 PM	Treatment
06:54 PM	Vitals
06:56 PM	Treatment
06:56 PM	Vitals
07:20 PM	Treatment
07:20 PM	Vitals
07:20 PM	Treatment
07:20 PM	Vitals
07:56 PM	Treatment
07:56 PM	Vitals
08:17 PM	Treatment
08:17 PM	Vitals
09:00 PM	Treatment
09:00 PM	Vitals
09:00 PM	Treatment
09:15 PM	Treatment
09:15 PM	Vitals
09:41 PM	Treatment
09:41 PM	Vitals
09:43 PM	Vitals
09:43 PM	Treatment
10:40 PM	Treatment
10:40 PM	Vitals
11:07 PM	Purchase
11:31 PM	Treatment
11:31 PM	Vitals
11:31 PM	Treatment
11:31 PM	Vitals
12:28 AM	Treatment

B6

B6

Client: **B6**
Patient:

Patient History

12:28 AM Vitals
01:05 AM Treatment
01:05 AM Vitals
01:05 AM Treatment
01:06 AM Treatment

01:09 AM Treatment
01:12 AM Treatment
01:12 AM Vitals
01:12 AM Treatment
01:12 AM Vitals
02:47 AM Treatment
02:47 AM Vitals
03:16 AM Treatment
03:16 AM Vitals
03:37 AM Treatment
03:37 AM Vitals
04:23 AM Treatment
04:23 AM Vitals
05:33 AM Treatment

05:33 AM Treatment
05:36 AM Treatment

05:36 AM Vitals
05:36 AM Treatment
05:36 AM Vitals
05:36 AM Treatment
05:36 AM Vitals
05:40 AM Vitals
05:40 AM Treatment
05:59 AM Treatment
05:59 AM Vitals
06:21 AM Vitals
06:51 AM Treatment
06:51 AM Vitals
07:42 AM Treatment
07:42 AM Vitals
08:08 AM Treatment
08:08 AM Vitals
08:08 AM Treatment
08:08 AM Vitals
08:08 AM Treatment
08:08 AM Vitals
09:06 AM Treatment
09:06 AM Vitals
09:07 AM Treatment
09:07 AM Vitals
09:16 AM Treatment
09:19 AM Purchase

B6

B6

Client:
Patient:

B6

Patient History

09:20 AM	Treatment
09:20 AM	Treatment
09:20 AM	Vitals
09:27 AM	Labwork
10:02 AM	Treatment
10:02 AM	Vitals
10:02 AM	Treatment
10:02 AM	Vitals
10:02 AM	Vitals
11:05 AM	Purchase
11:05 AM	Purchase
11:09 AM	Treatment
11:09 AM	Vitals
11:29 AM	Appointment
12:17 PM	Treatment
12:17 PM	Vitals
12:17 PM	Treatment
12:17 PM	Vitals
12:17 PM	Treatment
12:17 PM	Vitals
01:05 PM	Treatment
01:05 PM	Vitals
01:07 PM	Treatment
01:27 PM	Deleted Reason
01:27 PM	Purchase
01:32 PM	Prescription
01:36 PM	Prescription
01:36 PM	Treatment
01:36 PM	Vitals
01:36 PM	Treatment
01:36 PM	Vitals
01:36 PM	Treatment
01:36 PM	Vitals
02:35 PM	Email
02:59 PM	UserForm
01:22 PM	Treatment
01:23 PM	UserForm
01:25 PM	Vitals
01:37 PM	Purchase
01:38 PM	Purchase
01:53 PM	Vitals
02:20 PM	Prescription

B6

B6

Client: **B6**
Patient: **B6**

Patient History

B6	02:22 PM	Purchase	B6
	03:19 PM	Appointment	Appointment Made for 5/13/2019 1:00:00 PM for B6 for Recheck B6 DCM Study
	03:21 PM	Email	Emailed Form to B6

Discharge Instructions

Patient
Name:

Signature: B6 Years Old Brown/White Female (Spayed) Pit Bull

Owner
Name:

Address:

B6

Patient ID:

B6

Emergency Clinician:

B6

B6

WSc (Resident - Emergency and Critical Care)

Consulting Clinician:

ER Supervisor:

B6

Admit Date:

B6

9 AM

Check Out Date:

Diagnosis:

1. Congestive Heart Failure: dilated cardiomyopathy

Case Summary: B6 presented to the ER in significant respiratory distress. She was diagnosed with heart failure and required hospitalization in an oxygen kennel alongside intravenous medications (B6) to control her breathing. Echocardiography (heart scan) showed that she had a dilated heart, a condition called dilated cardiomyopathy. B6 has responded well to treatment and soon started breathing well outside of oxygen. She has done well today and can now go home. B6 must receive all her medications in order to manage her heart condition. It is also very important that she is fed the prescription hypoallergenic food ONLY.

Monitoring at home:

- We would like you to monitor your dog's 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 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 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

B6

Diet suggestions:

B6 should continue to be fed Purina HA dry. She seemed to like that food while in hospital.

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 your dog to continue to eat their normal diet for the first 7 to 14 days so we can make sure they are tolerating medications well. 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.). 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/ucm613305.htm>) and a recent article published by Dr. Lisa Freeman on the Cummings School's Petfoodology blog can further explain these findings (<http://veinutrition.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:

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/Follow-up:

A recheck exam has been scheduled for

Friday, February 22, 2019 at 1:00pm with:

B6

Cummings Veterinary Medical Center

AT TUFTS UNIVERSITY
Cardiology Liaison: 508-887-4696

B6

Patient ID: B6

B6 Canine
Years Old Female (Spayed) Pit Bull
Brown/White BW: Weight (kg) 19.00

Cardiology Consultation ENROLLED IN DCM STUDY

Date: B6

Weight: Weight (kg) 19.00

Requesting Clinician: B6

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

Patient location: ER

Presenting complaint and important concurrent diseases: Dyspnea

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
- IV/VI
- V/VI

- II/VI
- III/VI

- V/VI

Murmur location/description: left apical systolic (animal panting, difficult auscultation)

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 vs.
- Fair at most
- 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: not assessed

- Summated
- Normal
- Pseudonormal
- Restrictive

Delayed relaxation

Blood Pressure (mmHg): recommended

Radiographic findings:

Diffuse interstitial pattern bilaterally, pulmonary vessels not easily visible. Severe cardiomegaly with left mainstem bronchi compression and trachea is dorsally deviated.

Assessment and recommendations:

Marked LV contractile dysfunction with severe LA dilation, and thoracic radiographs are suggestive of CHF. Severe PHTN could be post (L-CHF) or pre-capillary (primary lung disease). As patient has no history of HW preventative, recommend 4DX. Unclear whether there is TV dysplasia or severe TR is just secondary to severe RV dilation and PHT. Recommend repeat echo when patient is more stable and r/o PS and +/- bubble study. Keep patient in O2 chamber

B6

depending on clinical response. As patient is BAR and gets excited when manipulated, hold BP for now. As patient has been on a variety of diets with uncertain quality, recommend switch to a grain-based, nonboutique diet made by a well-established company. Recommend complete echocardiogram in 1-2 days or as soon as patient is stable.

Acknowledgment

B6 Patient improved resp rate overnight and B6 was discontinued; patient should tolerate oxygen trial this morning. Echocardiogram revealed slight decrease in PHTN B6

B6 Heart rate is lower (100bpm) and no crackles bilaterally. B6 is recommended q6-8h and assess respiratory rate hourly and kidney values today.

Treatment plan:

B6

Final Diagnosis: DCM with LCHF; PHTN

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

Time

HR

CO(Teich)

CI(Teich)

Ao Diam

LA Diam

LA/Ao

EPSS

B6

cm
cm
cm
cm
cm
ml
ml
%
%
ml
cm
cm

cm
ms
BPM
l/min
l/minm
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

B6

cm
cm

cm
cm
cm
ml
cm
cm
cm
ml
%
%
ml
cm

LV Minor
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
RVIDD
RVIDS

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'
IVRT
AV Vmax
AV maxPG
PV Vmax
PV maxPG
TR Vmax
TR maxPG

B6

cm

cm
cm
ml
ml
cm
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BPM
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B6

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mmHg

Discharge Instructions

Patient

Name: B6

Species: Canine

Brown/White Female (Spayed) Pit Bull

Birthdate: B6

Owner

Name: B6

Address: B6

Patient ID: B6

Attending Cardiologist:

B6

Cardiology Resident:

B6

Cardiology Technician:

B6

Student: B6 V19

Admit Date: 2/22/2019 12:37:33 PM

Discharge Date: 2/22/2019

Diagnoses: Dilated cardiomyopathy (DCM) with congestive heart failure

Diagnostic test results and findings:

- o Labwork findings: The labwork results are pending. We will call you with these results.
- o ECG: The ECG did not show any arrhythmias on examination today.

Case summary:

Thank you for bringing B6 in for evaluation by the Tufts cardiology department for her recently diagnosed heart disease.

On exam today B6 was bright and alert. You report that she is doing well at home and her respiratory rate has been between 18-24 when she is sleeping. ECG did not show any arrhythmias. B6 was breathing slightly harder after her exam so she was given one dose of B6. We are going to keep her on her current medication regimen and add an B6 to reduce the workload on her heart.

Monitoring at home:

- o We would like you to continue monitoring 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.
- o In general, most dogs with heart failure that is well controlled have a breathing rate at rest of less than 30-34 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.
- o An increase in breathing rate or effort will usually mean that you should give an extra dose B6 if difficulty breathing is not improved by within 30-60 minutes after giving extra B6. We recommend that a recheck exam be scheduled and/or that your dog be evaluated by an emergency clinic.

- o 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/>).
- o 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.
- o 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:

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 has been scheduled for

Monday, May 13, 2019 at 1:00PM with **B6**

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
7 years Old Female (Spayed) Pit Bull
Brown/White

Cardiology Appointment Report -Patient enrolled in the DCM study-

Date: 2/22/2019

Attending Cardiologist:

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

B6

Cardiology Resident:

B6

Cardiology Technician:

B6

Student **B6** v19

Presenting Complaint:

DCM

General Medical History:

Presented to ER for dyspnea. **B6** On exam, grade II/VI murmur. Echo showed decreased contractility, marked RH dilation, thickened MV and TV, 2+ MR.
O reports doing well at home since discharge

Diet and Supplements:

Prescription purina cardiac diet, eating well
coconut oil to give medication

Cardiovascular History:

Prior CHF diagnosis? N

Prior heart murmur? Y

Prior ATE? N

Prior arrhythmia? N

Monitoring respiratory rate and effort at home? Yes, once a day, around 18-24

Cough? Coughed a few times last night, otherwise no cough, some sneezing

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

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 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 with excitement
- Marked dyspnea
- Normal BV sounds

- Pulmonary crackles
- Wheezes
- Upper airway stridor

Abdominal exam:

- Normal
- Hepatomegaly
- Abdominal distension

- Mild ascites
- Marked ascites

Problems:

DCM - CHF

Differential Diagnoses:

Diet-induced DCM vs. primary DCM

Diagnostic plan:

- Echocardiogram
- Chemistry profile
- ECG
- Renal profile
- Blood pressure

- Dialysis profile
- Thoracic radiographs
- NT-proBNP
- Troponin I
- Other tests:

ECG findings:

B6

Interpretation: sinus rhythm with suggestion of LA and LV enlargement. No ventricular or atrial premature beats observed.

Assessment and recommendations:

Patient improved since discharge, normal appetite, good energy level and respiratory rate is **B6**. **B6** was started today (**B6**) and then increase to **B6** mg in the morning and **B6** mg in the evening, unless patient does not tolerate this dose or bloodwork performed today reveals any kidney change that may need dose adjustments. Patient will be on hydrolyzed diet (HA) until she's through with current bag and then will try the ProPlan Sensitive Skin and Stomach. If she develops diarrhea on this diet, client is instructed to go back to HA. Recheck scheduled for 3 months, or sooner in

case patient develops clinical signs consistent with worsening of the disease.

Final Diagnosis:

DCM - r/o primary vs. diet-induced.

Heart Failure Classification Score:

ISACHC Classification:

Ia

Ib

II

IIIa

IIIb

ACVIM Classification:

A

B1

B2

C

D

Notice of Patient Admit

Date: [B6] :55:09 AM
Referring Doctor: [B6]
Client Name:
Patient Name: **B6**

Case #: [B6]

Dear [B6]

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: DCM, PHT, CHF

If you have any questions regarding this particular case, please call 508-887-4988 to reach the ECC Service. Information is updated daily, by noon.

Thank you for your referral to our Emergency Service.

Cummings
Veterinary Medical Center
AT TUFTS UNIVERSITY

B6

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 Female (Spayed)
Canine Pit Bull Brown/White
B6

2/22/2019

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 (Resident - Cardiology)

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 Pit Bull Brown/White

B6

2/23/2019

Dear **B6**

Thank you for referring **B6** with their pet **B6**

B6 presented to the Tufts ER on **B6** in significant respiratory distress. She was diagnosed with congestive heart failure secondary to dilated cardiomyopathy (DCM). **B6** was stabilised with **B6** **B6** & **B6** was enrolled into a research project with our Cardiology Service investigating an association between DCM and dogs fed grain free diets. She has done well and was discharged on **B6** with **B6** **B6** and Purina HA dry food.

B6 has a recheck appointment scheduled with **B6** Resident in Cardiology, on 2/22/19.

If you have any questions, or concerns, please contact us at 508-887-4988.

Thank you,

B6 BVSc (Resident - Emergency & Critical Care)

From: PFR Event <pfpreventcreation@fda.hhs.gov>
To: Cleary, Michael *; HQ Pet Food Report Notification; B6
Sent: 2/25/2019 1:45:06 PM
Subject: Acana lamb and apple dry: Lisa Freeman - EON-380747
Attachments: 2063136-report.pdf; 2063136-attachments.zip

A PFR Report has been received and PFR Event [EON-380747] has been created in the EON System.

A "PDF" report by name "2063136-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 "2063136-attachments.zip" and is attached to this email notification.

Below is the summary of the report:

EON Key: EON-380747

ICSR #: 2063136

EON Title: PFR Event created for Acana lamb and apple dry; 2063136

AE Date	01/22/2019	Number Fed/Exposed	1
Best By Date		Number Reacted	1
Animal Species	Dog	Outcome to Date	Stable
Breed	Spaniel - Cocker English		
Age	5 Years		
District Involved	PFR-New England DO		

Product information

Individual Case Safety Report Number: 2063136

Product Group: Pet Food

Product Name: Acana lamb and apple dry

Description: At ortho recheck 1/22/19, new murmur was noted to cardio consult performed. DCM identified. Dog eating BEG diet. Recommended diet change but owner has major concerns about dietary components triggering seizures. Enrolled in our DCM study and dog completed baseline measurements but then owner elected to withdraw from study. Unclear what she will do in terms of diet change. I have not provided owner contact information. If you wish to contact owner, please let me know and I can ask if ok to do so.

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 lamb and apple dry		

Sender information

Lisa Freeman
200 Westboro Rd
North Grafton, MA 01536
USA

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

<https://eon.fda.gov/eon//browse/EON-380747>

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=397756>

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.

This email message is intended for the exclusive use of the recipient(s) named above. It may contain information that is protected, privileged, or confidential. Any dissemination, distribution, or copying is strictly prohibited.

The information is provided as part of the Federal-State Integration initiative. As a Commissioned Official and state government official, you are reminded of your obligation to protect non-public information, including trade secret and confidential commercial information that you receive from the U.S. Food and Drug Administration from further disclosure. The information in the report is intended for situational awareness and should not be shared or acted upon independently. Any and all actions regarding this information should be coordinated through your local district FDA office.

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.

Report Details - EON-380747	
ICSR:	2063136
Type Of Submission:	Initial
Report Version:	FPSR.FDA.PETF.V.V1
Type Of Report:	Adverse Event (a symptom, reaction or disease associated with the product)
Reporting Type:	Voluntary
Report Submission Date:	2019-02-25 08:34:16 EST
Reported Problem:	Problem Description: At ortho recheck 1/22/19, new murmur was noted to cardio consult performed. DCM identified. Dog eating BEG diet. Recommended diet change but owner has major concerns about dietary components triggering seizures. Enrolled in our DCM study and dog completed baseline measurements but then owner elected to withdraw from study. Unclear what she will do in terms of diet change. I have not provided owner contact information. If you wish to contact owner, please let me know and I can ask if ok to do so.
	Date Problem Started: 01/22/2019
	Concurrent Medical Problem: Yes
	Pre Existing Conditions: B6
	Outcome to Date: Stable
Product Information:	Product Name: Acana lamb and apple dry
	Product Type: Pet Food
	Lot Number:
	Product Use Information: Description: Please see diet history
	Manufacturer /Distributor Information:
	Purchase Location Information:
Animal Information:	Name: B6
	Type Of Species: Dog
	Type Of Breed: Spaniel - Cocker English
	Gender: Male
	Reproductive Status: Neutered
	Weight: 15.8 Kilogram
	Age: 5 Years
	Assessment of Prior Health: Good
	Number of Animals Given the Product: 1
	Number of Animals Reacted: 1
	Owner Information: Owner Information provided: No
Healthcare Professional Information:	Practice Name: Tufts Cummings School of Veterinary Medicine
	Contact Name: Lisa Freeman
	Phone: (508) 887-4523
	Email: lisa.freeman@tufts.edu
	Address: 200 Westboro Rd North Grafton Massachusetts 01536 United States

Sender Information:	Name:	Lisa Freeman
	Address:	200 Westboro Rd North Grafton Massachusetts 01536 United States
	Contact:	Phone: 5088874523 Email: lisa.freeman@tufts.edu
	Permission To Contact Sender:	Yes
	Preferred Method Of Contact:	Email

Additional Documents:	Attachment:	rpt_medical_record_preview.pdf
	Description:	Records
	Type:	Medical Records
	Attachment:	discharge 1-22-19.pdf
	Description:	Discharge
	Type:	Other
	Attachment:	cardio report 1-22-19.pdf
	Description:	Cardio report 1/22/19
	Type:	Echocardiogram

Cummings Veterinary Medical Center

AT TUFTS UNIVERSITY
Cardiology Liaison: 508-887-4696

B6

Patient ID: B6

B6 Canine

B6 Years 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 Notes:

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:

Presenting for 6 week recheck post-op B6 Was
hit by car B6 Plan for hip radiographs today.

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*

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/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

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

can be used instead.

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

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
ml
ml
BPM
%
%
ml
ml
l/min
l/min

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

Medical Record for 1/22/2019

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: **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:	English Cocker Spaniel
Sex:	Male (Neutered)
Age:	B6 Years Old

Lab Results Report

B6	B6	11:31:00 AM	Accession ID: B6
Test	Results	Reference Range	Units
B6	B6	10 - 40	ug/mL



3/19

B6

Printed Monday, February 25, 2019

Client: **B6**
Patient: **B6**

IDEXX BNP: **B6**

B6

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: **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	Unit	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.

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 *recheck radiograph*
Location of patient **B6** 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 **B6** desk after discharge. Thank you!

Date: **B6** Time: *5* Student's name **B6**

Client: **B6**
Patient: **B6**

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: V320539: Investigation into
Phone number: Species: Canine Sample ID: 1901220112
Collection Date: **B6** 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				B6
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: 19012201121
END OF REPORT (Final)

Reviewed by: _____

Client: **B6**
Patient:

RDVM 2/2/19

B6

B6

Client:
Patient:

B6

RDVM 2/2/19

Client: **B6**
Patient: **B6**

Amino Acid Labs Taurine Panel 1/22/19

B6
1/22/2019 2:37 PM
Canine
SHIP w ICE PACKS, TAURINE
PANEL
Lithium Heparin **B6**

Amino Acid Laboratory Sample Submission Form

Amino Acid Laboratory, 1089 Veterinary Medicine Drive, Davis, Ca 9561
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: COCKER Owner's Name: **B6**

Current Diet: Acana

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:

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* 1997;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.
 - 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 >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.

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)
- Taurine 500 by GNC (500mg tablet)

Tested l-carnitine supplements that test within 5% of stated contents and if applicable disintegrated within 30 minutes

- 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)
- L-carnitine by Puritan's Pride (500mg tablet)

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:

<https://www.fda.gov/animalveterinary/safetyhealth/reportaproblem/ucm182403.htm>

Additional questions or comments:
sterngenetics@ucdavis.edu
This document last updated: Aug. 20, 2018

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: **B6**
Patient:

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: **B6**

Vitals Results

B6	3:10:53 PM	Nursing note	B6
	4:15:34 PM	Nursing note	

Client: **B6**
Patient: **B6**

ECG from Cardio

B6

B6

2:59:42 PM

Tufts University
Tufts Cummings School of Vet Med
Cardiology

12-Lead Standard Placement

B6

Client: **B6**
Patient:

ECG from Cardio

B6

B6

3:00:04 PM

Tufts University
Tufts Cummings School of Vet Med
Cardiology

12 Lead: Standard Placement

B6

Client: **B6**
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	B6
	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		

From: PFR Event <pfpreventcreation@fda.hhs.gov>
To: Cleary, Michael *; HQ Pet Food Report Notification; B6
Sent: 2/25/2019 12:52:56 PM
Subject: Wellness Core grain-free ocean fish dry-Wellness core grain free turkey: Lisa Freeman - EON-380742
Attachments: 2063133-report.pdf; 2063133-attachments.zip

A PFR Report has been received and PFR Event [EON-380742] has been created in the EON System.

A "PDF" report by name "2063133-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 "2063133-attachments.zip" and is attached to this email notification.

Below is the summary of the report:

EON Key: EON-380742

ICSR #: 2063133

EON Title: PFR Event created for Wellness Core grain-free ocean fish dry Wellness core grain free turkey chicken liver & turkey liver canned Wellness Hearty Cuts grain-free in gravy chicken and turkey recipe; 2063133

AE Date	01/15/2019	Number Fed/Exposed	6
Best By Date		Number Reacted	3
Animal Species	Dog	Outcome to Date	Stable
Breed	Bulldog		
Age	8.5 Years		
District Involved	PFR-New England DO		

Product information

Individual Case Safety Report Number: 2063133

Product Group: Pet Food

Product Name: Wellness Core grain-free ocean fish dry Wellness core grain free turkey, chicken liver & turkey liver canned Wellness Hearty Cuts grain-free in gravy chicken and turkey recipe

Description: DCM and CHF diagnosed 1/15/19 Eating BEG diet. 6 dogs being fed this diet - so far, 3 have been diagnosed with DCM/ARVC. One other had a normal NT-proBNP and 2 others will be tested Diet has been changed to Royal Canin Early Cardiac and we will recheck in 3 months. I have sample of dry and canned 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: Stable

Number of Animals Treated With Product: 6

Number of Animals Reacted With Product: 3

Product Name	Lot Number or ID	Best By Date
Wellness Core grain-free ocean fish dry Wellness core grain free turkey, chicken liver & turkey liver canned Wellness Hearty Cuts grain-free in gravy chicken and turkey recipe		

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-380742>

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=397751>

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through your local district FDA office.

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.

Report Details - EON-380742

ICSR: 2063133
 Type Of Submission: Initial
 Report Version: FPSR.FDA.PETF.V.V1
 Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
 Reporting Type: Voluntary
 Report Submission Date: 2019-02-25 07:43:42 EST

Reported Problem:
Problem Description: DCM and CHF diagnosed 1/15/19 Eating BEG diet. 6 dogs being fed this diet - so far 3 have been diagnosed with DCM/ARVC. One other had a normal NT-proBNP and 2 others will be tested Diet has been changed to Royal Canin Early Cardiac and we will recheck in 3 months. I have sample of dry and canned food
Date Problem Started: 01/15/2019
Concurrent Medical Problem: Yes
Pre Existing Conditions: B6
Outcome to Date: Stable

Product Information:
Product Name: Wellness Core grain-free ocean fish dry Wellness core grain free turkey, chicken liver & turkey liver canned Wellness Hearty Cuts grain-free in gravy chicken and turkey recipe
Product Type: Pet Food
Lot Number:
Product Use Information: Description: Please see diet history
Manufacturer /Distributor Information:
Purchase Location Information:

Animal Information:
Name: B6
Type Of Species: Dog
Type Of Breed: Bulldog
Gender: Female
Reproductive Status: Neutered
Weight: 19.8 Kilogram
Age: 8.5 Years
Number of Animals Given the Product: 6
Number of Animals Reacted: 3
Owner Information: Owner Information provided: Yes

Contact: Name: B6
 Phone: B6
 Email: B6
 Address: B6
 United States

Healthcare Professional Information: Practice Name: Tufts Cummings School of Veterinary Medicine
 Contact: Name: Lisa Freeman
 Phone: (508) 887-4523
 Email: lisa.freeman@tufts.edu

Address: 200 Westboro Rd
North Grafton
Massachusetts
01536
United States

Sender Information:

Name:	Lisa Freeman
Address:	200 Westboro Rd North Grafton Massachusetts 01536 United States
Contact:	Phone: 5088874523 Email: lisa.freeman@tufts.edu
Permission To Contact Sender:	Yes
Preferred Method Of Contact:	Email

Additional Documents:

Attachment:	rpt_medical_record_preview.pdf
Description:	Med records
Type:	Medical Records

Client:

Address:

B6

All Medical Records

Patient:

B6

Breed:

English Bulldog

DOB:

B6

Species: Canine

Sex: Female
(Spayed)

Home Phone:
Work Phone:
Cell Phone:

B6

Referring Information

B6

Client:

B6

Patient:

Initial Complaint:

Emergency

SOAP Text

B6

9:31PM

B6

Subjective

NEW VISIT (ER)

Doctor:

B6

Student: ---

Presenting complaint: Tachypnea

Referral visit? Yes

Diagnostics completed prior to visit-- radiographs, 2 view thorax, in ER email

HISTORY:

Signalment: 8 yo SF English Bulldog

Current history:

Earlier this afternoon, found her laying and trembling with shallow and rapid breathing. Owner also noticed that she had a hacking non productive cough. Has not appreciated it before today. Went to rDVM where radiographs were performed. No history of heart or pulmonary disease. No recent vomiting or diarrhea. Has recently been doing well at home with no concerns.

Prior medical history: **B6** otherwise healthy

Current medications: **B6** once daily in PM, had tonight

Diet: Core Wellness, mix of wet and dry, grain free diet

Client: **B6**
Patient:

Vaccination status/flea & tick preventative use: UTD
Travel history: unknown

EXAM: performed with flow by O2

B6

C/V: no murmur or arrhythmia auscultated, difficult to appreciate over increased lung sounds, femoral pulses strong and synchronous

RESP: increased BVS bilaterally, no crackles or wheezes, panting

B6

ASSESSMENT:

A1: Dyspnea-- open for pneumonia vs CHF vs non cardiogenic pulmonary edema vs other

PLAN:

B6

Treatments:

B6

Diagnostics completed:

AFAST/TFAST--no FF in either cavity, cardiac silhouette difficult to visualize, mild number B lines

B6

Diagnostics pending:

CBC

Client: **B6**
Patient: **B6**

Chemistry
BNP

Client communication:

Confirmed history with owner. Discussed that no apparent murmur and significant structural changes on TFAST, but cannot rule out heart as underlying process. Also concern for pneumonia at this time. Recommended hospitalization for supportive care, O2, diagnostics, cardio consultation and repeat imaging as indicated. O ok with plan.

Deposit & estimate status: **B6**

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

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

SOAP Text **B6** 8:38AM **B6**

SIGNALMENT: 8yo FS English Bulldog

PRESENTING COMPLAINT: dyspnea

HISTORY:

Presented on **B6** after O found her laying and trembling with shallow and rapid breathing. Owner also noticed that she had a hacking non productive cough. Has not appreciated it before today. Went to rDVM where radiographs were performed. No history of heart or pulmonary disease. No recent vomiting or diarrhea. Has recently been doing well at home with no concerns.

Prior medical history: **B6**, otherwise healthy

Current medications: **B6** once daily in PM, had tonight

Diet: Core Wellness, mix of wet and dry, grain free diet

On presentation, P was dyspneic and tachycardic. rDVM rads unable to be assessed as CHF vs. pneumonia, so placed in O2 on Unasyn overnight with bloodwork pulled for CBC/Chem and nt-proBNP. Minimal improvement overnight with persistent tachycardia, but excellent appetite and good spirits.

SUBJECTIVE:

B6

C/V: tachycardic with no murmurs or arrhythmias on auscultation. fair pulse quality with pink injected mm and CRT 1sec

RESP: Bilaterally harsh lung sounds with no discernable crackles or wheezes

B6

Client: **B6**
Patient: **B6**

B6

ASSESSMENT:

A1: Dyspnea-- open for pneumonia vs CHF vs non cardiogenic pulmonary edema vs other

PLAN:

B6

Diagnostics completed:

B6

AFAST/TFAST: no FF in either cavity, cardiac silhouette difficult to visualize, mild number B lines

B6

B6

AFAST/TFAST: No FF in abdomen, possible scant pleural effusion, contiguous B-lines bilaterally, ventrally

CBC: WNL

Chem: WNL

CXR: - Diffuse bronchial and interstitial pulmonary pattern may indicate concurrent chronic lower airway disease (allergic, infectious, or parasitic) and interstitial lung disease. Airway sampling can be considered.

- Mild cardiomegaly and left atrial enlargement without evidence of decompensation. Echocardiography can be considered (to evaluate mitral valve and to evaluate for pulmonary hypertension).

B6

Cardio Consult: DCM, suspect early CHF - add: **B6** 8

Diagnostics pending:

BNP

Troponin

Taurine

Deposit & estimate status **B6**

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

B6 DVM (ECC Resident)

SOAP Text **B6** 7:43AM - Clinician, Unassigned FHSA

HISTORY:

B6 is an 8.5 yo FS English Bulldog that presented o **B6** for sudden onset dyspnea. O found her laying and trembling with shallow and rapid breathing. Owner also noticed that she had a hacking non productive cough. Has not appreciated it before. Went to rDVM where radiographs were performed. No history of heart or pulmonary disease. No recent vomiting or diarrhea, has been doing well at home with no concerns. Was on Core Wellness dry and wet grain

Client: **B6**
Patient: **B6**

free diet.

On presentation to ER, P was dyspneic and tachycardic. rDVM rads unable to be assessed as CHF vs. pneumonia, so placed in O2 on Unasyn overnight with bloodwork pulled for CBC/Chem and nt-proBNP. Minimal improvement overnight on 1/16 with persistent tachycardia, but excellent appetite and good spirits. Cardio consult was difficult to assess due to dyspnea and conformation, but showed DCM and suspect CHF.

Overnight, P had normal vitals, with RR 24-36 with no to mild effort in O2 cage. Walked well outside of O2 cage, but at 3:45am after a walk was trembling and anxious in the cage, was given **B6** and calmed after. Excellent appetite this morning. Has received 3 doses of **B6** so far since **B6**

Subjective

BAR, euhydrated, MM pink moist, CRT <2

Objective

B6

H/L: No murmur ausculted although very difficult auscultation due to the constant panting. No obvious arrhythmia either. Jugular pulse bottom 1/3 of the neck. Femoral pulses strong and synchronized with heart beat. Normal BVS bilateral

B6

Diagnostics completed:

B6

AFAST/TFAST: no FF in either cavity, cardiac silhouette difficult to visualize, mild number B lines

B6

B6

AFAST/TFAST: No FF in abdomen, possible scant pleural effusion, contiguous B-lines bilaterally, ventrally

CBC: WNL

Chem: WNL

CXR: - Diffuse bronchial and interstitial pulmonary pattern may indicate concurrent chronic lower airway disease (allergic, infectious, or parasitic) and interstitial lung disease. Airway sampling can be considered.

- Mild cardiomegaly and left atrial enlargement without evidence of decompensation. Echocardiography can be considered (to evaluate mitral valve and to evaluate for pulmonary hypertension).

B6

Cardio Consult: DCM, suspect early CHF - add **B6** q8

Diagnostics pending:

BNP

Client: **B6**
Patient: **B6**

Troponin
Taurine

Assessment (A)

A1: Dyspnea- suspect DCM and early CHF vs less likely pneumonia vs neoplasia

Plan (P)

B6

SOAP completed by: **B6** V19
SOAP reviewed by: **B6** DVM

Addendum:

B6

SOAP Text: **B6** 7:28AM **B6**

HISTORY:

B6 is an 8.5 yo FS English Bulldog that presented with **B6** for sudden onset dyspnea. O found her laying and trembling with shallow and rapid breathing. Owner also noticed that she had a hacking non productive cough. Has not appreciated it before. Went to rDVM where radiographs were performed. No history of heart or pulmonary disease. No recent vomiting or diarrhea, has been doing well at home with no concerns. Was on Core Wellness dry and wet grain free diet.

On presentation to ER, P was dyspneic and tachycardic. rDVM rads unable to be assessed as CHF vs. pneumonia, so placed in O2 on Unasyn overnight with bloodwork pulled for CBC/Chem and nt-proBNP. Minimal improvement overnight on **B6** with persistent tachycardia, but excellent appetite and good spirits. Cardio consult was difficult to assess due to dyspnea and conformation, but showed DCM and suspect CHF.

Since yesterday P has been out of oxygen, increased **B6** to TID, and restarted **B6**. Overnight, P had normal vitals, with RR 28-32 with no effort, but panting earlier in the night. Walks well outside, and still has excellent appetite.

Subjective

BAR, euhydrated, MM pink moist, CRT <2

Objective

B6

Client: **B6**
Patient:

B6

H/L: No murmur ausculted although very difficult auscultation due to the constant panting. No obvious arrhythmia either. Jugular pulse bottom 1/3 of the neck. Femoral pulses strong and synchronized with heart beat. Normal BVS bilateral

B6

Diagnostics completed:

B6

AFAST/TFAST: no FF in either cavity, cardiac silhouette difficult to visualize, mild number B lines

B6

B6

AFAST/TFAST: No FF in abdomen, possible scant pleural effusion, contiguous B-lines bilaterally, ventrally

CBC: WNL

Chem: WNL

CXR: - Diffuse bronchial and interstitial pulmonary pattern may indicate concurrent chronic lower airway disease (allergic, infectious, or parasitic) and interstitial lung disease. Airway sampling can be considered.

- Mild cardiomegaly and left atrial enlargement without evidence of decompensation. Echocardiography can be considered (to evaluate mitral valve and to evaluate for pulmonary hypertension).

B6

Cardio Consult: DCM, suspect early CHF - add **B6** q8

B6

B6

B6

Diagnostics pending:

Troponin

Taurine

Assessment (A)

A1: DCM and suspect early CHF vs less likely pneumonia

Plan (P)

B6

Client:
Patient:

B6

SOAP completed by: **B6** V19
SOAP reviewed by: **B6**, DVM

Addendum:

-PCV/TS

B6

-Chem- WNL

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: **B6**
 Visit ID:

Patient: **B6**
 Species: Canine
 Breed: English Bulldog
 Sex: Female (Spayed)
 Age: **B6** Years Old

Lab Results Report

CBC, Comprehensive, Sm Animal **B6** 1:21:12 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

CBC, Comprehensive, Sm Animal **B6** 1:21:26 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



10/47

B6

Printed Monday, February 25, 2019

Client: **B6**
 Patient: **B6**

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
tCO2 (BICARB)		14 - 28	mEq/L
AGAP		8 - 19	
NA/K		29 - 40	
T BILIRUBIN		0.1 - 0.3	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
COMMENTS (CHEMISTRY)		0 - 0	

B6

CBC, Comprehensive, Sm Animal **B6** 1:21:08 PM Accession ID: **B6**

Test	Results	Reference Range	Units
SEGS%		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	
Occasional reactive lymphocytes			
RBC MORPHOLOGY		0 - 0	
POIKILOCYTOSIS		0 - 0	

B6

CBC, Comprehensive, Sm Animal **B6** 1:22:25 PM Accession ID: **B6**

Test	Results	Reference Range	Units
SO2%		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

B6



11/47

B6

Printed Monday, February 25, 2019

Client: **B6**
 Patient: **B6**

CL(POC)	B6	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	
PO2	80 - 100	mmHg	
HCO3	18 - 24	mmol/L	

CBC, Comprehensive, Sm Animal **B6** 11:28:40 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

CBC, Comprehensive, Sm Animal **B6** 1:43:18 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
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



Client: **B6**
 Patient: **B6**

CHLORIDE	B6	106 - 116	mEq/L
POTASSIUM		3.7 - 5.4	mEq/L
NA/K		29 - 40	
T BILIRUBIN		0.1 - 0.3	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

CBC, Comprehensive, Sm Animal **B6** 3:44:46 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

CBC, Comprehensive, Sm Animal **B6** 9:46:19 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
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	

CBC, Comprehensive, Sm Animal **B6** 10:20:57 AM Accession ID: **B6**

Test	Results	Reference Range	Units
TS (FHSA)	B6	0 - 0	g/dl
PCV **		0 - 0	%

Client: **B6**
Patient: **B6**

TS (FHSA) **B6** 0 - 0 g/dl



14/47

B6

Printed Monday, February 25, 2019

Vitals Results

6:41:14 PM	Heart Rate (/min)
6:41:15 PM	Respiratory Rate
6:41:16 PM	Temperature (F)
6:41:17 PM	Weight (kg)
11:17:43 PM	Heart Rate (/min)
11:17:51 PM	Respiratory Rate
11:22:41 PM	Notes
11:26:08 PM	FiO2 (%)
1:03:01 AM	Respiratory Rate
2:54:19 AM	Catheter Assessment
2:56:22 AM	Heart Rate (/min)
2:56:33 AM	FiO2 (%)
2:57:15 AM	Respiratory Rate
5:07:52 AM	Respiratory Rate
7:34:37 AM	Eliminations
7:35:59 AM	FiO2 (%)
7:37:34 AM	Temperature (F)
7:37:44 AM	Amount eaten
7:46:29 AM	Respiratory Rate
7:46:58 AM	Heart Rate (/min)
7:47:06 AM	Catheter Assessment
9:13:53 AM	Weight (kg)
9:14:50 AM	Respiratory Rate
11:03:18 AM	FiO2 (%)
11:03:33 AM	Catheter Assessment
11:03:43 AM	Heart Rate (/min)
11:03:52 AM	Respiratory Rate
12:50:07 PM	Lasix treatment note
1:10:13 PM	Respiratory Rate
1:10:22 PM	Eliminations
3:18:03 PM	Catheter Assessment
3:18:20 PM	FiO2 (%)
3:18:55 PM	Respiratory Rate

B6

B6

Client: **B6**
Patient:

Vitals Results

3:20:08 PM	Heart Rate (/min)
4:46:44 PM	Amount eaten
5:41:52 PM	Respiratory Rate
7:04:34 PM	FiO2 (%)
7:04:58 PM	Catheter Assessment
7:06:54 PM	Heart Rate (/min)
7:07:03 PM	Temperature (F)
7:34:10 PM	Weight (kg)
7:34:17 PM	Eliminations
7:45:53 PM	Lasix treatment note
7:46:17 PM	Respiratory Rate
8:55:18 PM	Nursing note
8:55:56 PM	Eliminations
9:53:33 PM	Respiratory Rate
11:31:43 PM	Catheter Assessment
11:32:37 PM	Catheter Assessment
11:34:10 PM	Heart Rate (/min)
11:34:31 PM	Amount eaten
11:49:45 PM	FiO2 (%)
11:49:58 PM	Respiratory Rate
1:55:25 AM	Respiratory Rate
3:35:30 AM	Lasix treatment note
3:37:10 AM	Catheter Assessment
3:45:10 AM	Heart Rate (/min)
3:45:19 AM	Eliminations
3:53:42 AM	FiO2 (%)
3:53:53 AM	Respiratory Rate
4:55:04 AM	Nursing note
5:55:31 AM	Respiratory Rate
6:11:40 AM	Nursing note
7:19:26 AM	Respiratory Rate
7:19:52 AM	FiO2 (%)
7:20:14 AM	Temperature (F)
7:20:30 AM	Heart Rate (/min)
7:20:46 AM	Amount eaten
7:33:19 AM	Weight (kg)
7:33:27 AM	Eliminations
8:01:36 AM	Catheter Assessment
9:32:45 AM	Respiratory Rate

B6

B6

Client:
Patient:

B6

Vitals Results

11:16:45 AM	FiO2 (%)
12:41:34 PM	Catheter Assessment
12:41:43 PM	Respiratory Rate
12:42:33 PM	Heart Rate (/min)
12:42:50 PM	Lasix treatment note
1:52:56 PM	Heart Rate (/min)
3:03:09 PM	FiO2 (%)
3:03:22 PM	Respiratory Rate
3:40:13 PM	Respiratory Rate
3:55:45 PM	Eliminations
5:04:09 PM	Respiratory Rate
5:40:13 PM	Amount eaten
5:52:28 PM	Eliminations
5:54:07 PM	Respiratory Rate
5:54:57 PM	Heart Rate (/min)
5:55:05 PM	Catheter Assessment
6:52:18 PM	Respiratory Rate
7:17:27 PM	Eliminations
7:45:11 PM	Respiratory Rate
8:01:23 PM	Lasix treatment note
8:17:14 PM	Eliminations
8:54:56 PM	Respiratory Rate
9:32:19 PM	Heart Rate (/min)
9:32:26 PM	Catheter Assessment
9:32:35 PM	Eliminations
9:43:25 PM	Respiratory Rate
10:41:18 PM	Respiratory Rate
11:18:27 PM	Eliminations
11:18:49 PM	Weight (kg)
11:42:42 PM	Eliminations
11:53:16 PM	Respiratory Rate
12:52:00 AM	Respiratory Rate
1:22:40 AM	Heart Rate (/min)
1:22:46 AM	Catheter Assessment
1:45:25 AM	Respiratory Rate
2:53:51 AM	Respiratory Rate
3:34:16 AM	Lasix treatment note
3:34:45 AM	Respiratory Rate
3:43:47 AM	Eliminations
4:50:44 AM	Respiratory Rate
4:52:32 AM	Nursing note

B6

B6

Client:
Patient:

B6

Vitals Results

B6

5:25:32 AM	Catheter Assessment
5:27:43 AM	Heart Rate (/min)
5:27:50 AM	Respiratory Rate
5:28:01 AM	Amount eaten
6:42:00 AM	Respiratory Rate
7:25:45 AM	Respiratory Rate
7:26:00 AM	Weight (kg)
7:26:12 AM	Eliminations
8:56:03 AM	Respiratory Rate
9:47:19 AM	Respiratory Rate
9:50:04 AM	Catheter Assessment
9:50:22 AM	Heart Rate (/min)
11:05:09 AM	Respiratory Rate
12:00:28 PM	Respiratory Rate
12:00:44 PM	Eliminations
12:05:36 PM	Lasix treatment note
12:55:52 PM	Respiratory Rate
1:55:49 PM	Respiratory Rate
3:12:43 PM	Respiratory Rate
3:17:41 PM	Eliminations
4:02:34 PM	Respiratory Rate

B6

Patient History

B6

06:41 PM	Vitals
06:41 PM	Vitals
06:41 PM	Vitals
06:41 PM	Vitals
07:50 PM	UserForm
09:52 PM	UserForm
11:17 PM	Treatment
11:17 PM	Vitals
11:17 PM	Treatment
11:17 PM	Vitals
11:19 PM	Treatment
11:21 PM	Purchase
11:21 PM	Purchase
11:21 PM	Purchase
11:21 PM	Purchase
11:21 PM	Purchase
11:21 PM	Purchase
11:22 PM	Purchase
11:22 PM	Purchase
11:22 PM	Vitals

B6

Client:
Patient:

B6

Patient History

11:22 PM	Purchase
11:22 PM	Purchase
11:25 PM	Treatment
11:26 PM	Treatment
11:26 PM	Vitals
11:26 PM	Treatment
11:28 PM	Labwork
12:50 AM	Treatment
12:53 AM	Treatment
01:03 AM	Treatment
01:03 AM	Vitals
02:54 AM	Treatment
02:54 AM	Treatment
02:54 AM	Vitals
02:56 AM	Treatment
02:56 AM	Vitals
02:56 AM	Treatment
02:56 AM	Vitals
02:57 AM	Treatment
02:57 AM	Vitals
05:07 AM	Treatment
05:07 AM	Vitals
07:34 AM	Treatment
07:34 AM	Treatment
07:34 AM	Vitals
07:35 AM	Treatment
07:35 AM	Vitals
07:37 AM	Treatment
07:37 AM	Vitals
07:37 AM	Treatment
07:37 AM	Vitals
07:46 AM	Treatment
07:46 AM	Vitals
07:46 AM	Treatment
07:46 AM	Vitals
07:47 AM	Treatment
07:47 AM	Vitals
08:13 AM	UserForm
08:19 AM	Purchase
08:32 AM	UserForm
08:39 AM	Treatment

B6

B6

Client:
Patient:

B6

Patient History

08:45 AM	Prescription
08:48 AM	Prescription
09:13 AM	Treatment
09:13 AM	Vitals
09:14 AM	Treatment
09:14 AM	Vitals
09:34 AM	Purchase
09:35 AM	Treatment
11:03 AM	Treatment
11:03 AM	Vitals
11:03 AM	Treatment
11:03 AM	Treatment
11:03 AM	Vitals
11:03 AM	Treatment
11:03 AM	Vitals
11:03 AM	Treatment
11:03 AM	Vitals
11:03 AM	Treatment
11:03 AM	Vitals
11:05 AM	Purchase
11:39 AM	Treatment
11:41 AM	Treatment
12:50 PM	Vitals
12:52 PM	Treatment
12:54 PM	Prescription
01:01 PM	Deleted Reason
01:10 PM	Treatment
01:10 PM	Vitals
01:10 PM	Treatment
01:10 PM	Vitals
01:10 PM	Treatment
03:14 PM	Treatment
03:17 PM	Treatment
03:18 PM	Treatment
03:18 PM	Vitals
03:18 PM	Treatment
03:18 PM	Vitals
03:18 PM	Treatment
03:18 PM	Vitals
03:18 PM	Treatment
03:18 PM	Vitals
03:20 PM	Treatment
03:20 PM	Vitals
04:14 PM	UserForm
04:46 PM	Treatment

B6

B6

Client:
Patient:

B6

Patient History

04:46 PM	Vitals
05:14 PM	Deleted Reason
05:14 PM	Deleted Reason
05:15 PM	Purchase
05:15 PM	Purchase
05:41 PM	Treatment
05:41 PM	Vitals
07:04 PM	Treatment
07:04 PM	Vitals
07:04 PM	Treatment
07:04 PM	Treatment
07:04 PM	Vitals
07:06 PM	Treatment
07:06 PM	Vitals
07:07 PM	Treatment
07:07 PM	Vitals
07:34 PM	Treatment
07:34 PM	Vitals
07:34 PM	Treatment
07:34 PM	Vitals
07:45 PM	Vitals
07:46 PM	Treatment
07:46 PM	Treatment
07:46 PM	Vitals
08:31 PM	Treatment
08:55 PM	Vitals
08:55 PM	Vitals
09:53 PM	Treatment
09:53 PM	Vitals
11:07 PM	Purchase
11:07 PM	Purchase
11:21 PM	Treatment
11:31 PM	Treatment
11:31 PM	Vitals
11:32 PM	Treatment
11:32 PM	Vitals
11:34 PM	Treatment
11:34 PM	Treatment
11:34 PM	Vitals
11:34 PM	Treatment
11:34 PM	Vitals
11:49 PM	Treatment
11:49 PM	Treatment

B6

B6

Client: **B6**
Patient:

Patient History

11:49 PM	Vitals
11:49 PM	Treatment
11:49 PM	Vitals
01:55 AM	Treatment
01:55 AM	Vitals
03:05 AM	Treatment
03:35 AM	Vitals
03:37 AM	Treatment
03:37 AM	Treatment
03:37 AM	Vitals
03:45 AM	Treatment
03:45 AM	Vitals
03:45 AM	Treatment
03:45 AM	Vitals
03:45 AM	Vitals
03:45 AM	Vitals
03:53 AM	Treatment
03:53 AM	Vitals
03:53 AM	Treatment
03:53 AM	Vitals
04:50 AM	Treatment
04:55 AM	Treatment
04:55 AM	Vitals
05:55 AM	Treatment
05:55 AM	Vitals
06:03 AM	Treatment
06:11 AM	Vitals
07:19 AM	Treatment
07:19 AM	Vitals
07:19 AM	Treatment
07:19 AM	Vitals
07:20 AM	Treatment
07:20 AM	Treatment
07:20 AM	Vitals
07:20 AM	Treatment
07:20 AM	Vitals
07:20 AM	Treatment
07:20 AM	Vitals
07:33 AM	Treatment
07:33 AM	Vitals
07:33 AM	Treatment
07:33 AM	Vitals
08:01 AM	Treatment
08:01 AM	Vitals
08:01 AM	Treatment

B6

B6

Client: **B6**
Patient:

Patient History

08:46 AM	Purchase
09:32 AM	Treatment
09:32 AM	Vitals
09:46 AM	Purchase
10:50 AM	Purchase
10:51 AM	Treatment
11:05 AM	Purchase
11:16 AM	Treatment
11:16 AM	Vitals
12:41 PM	Treatment
12:41 PM	Vitals
12:41 PM	Treatment
12:41 PM	Vitals
12:42 PM	Treatment
12:42 PM	Vitals
12:42 PM	Vitals
12:43 PM	Treatment
12:46 PM	Treatment
01:43 PM	Purchase
01:52 PM	Treatment
01:52 PM	Vitals
03:03 PM	Treatment
03:03 PM	Vitals
03:03 PM	Treatment
03:03 PM	Vitals
03:40 PM	Vitals
03:46 PM	Labwork
03:50 PM	Treatment
03:53 PM	Prescription
03:55 PM	Treatment
03:55 PM	Vitals
05:04 PM	Treatment
05:04 PM	Vitals
05:09 PM	Treatment
05:09 PM	Treatment
05:40 PM	Treatment
05:40 PM	Vitals
05:52 PM	Vitals
05:54 PM	Treatment
05:54 PM	Vitals
05:54 PM	Treatment
05:54 PM	Vitals
05:55 PM	Treatment
05:55 PM	Vitals
06:48 PM	Prescription

B6

B6

Client: **B6**
Patient:

Patient History

06:52 PM Treatment
06:52 PM Vitals
06:52 PM Treatment
07:17 PM Vitals
07:27 PM Treatment

07:45 PM Treatment
07:45 PM Vitals
08:01 PM Vitals
08:01 PM Treatment
08:17 PM Vitals
08:27 PM Treatment

08:54 PM Treatment
08:54 PM Vitals
09:13 PM Treatment
09:32 PM Treatment
09:32 PM Vitals
09:32 PM Treatment
09:32 PM Vitals
09:32 PM Vitals
09:43 PM Treatment
09:43 PM Vitals
10:41 PM Treatment
10:41 PM Vitals
11:07 PM Purchase
11:07 PM Purchase
11:18 PM Treatment
11:18 PM Vitals
11:18 PM Vitals
11:42 PM Vitals
11:53 PM Treatment
11:53 PM Vitals
12:52 AM Treatment
12:52 AM Vitals
01:21 AM Treatment
01:22 AM Treatment
01:22 AM Vitals
01:22 AM Treatment
01:22 AM Vitals
01:45 AM Treatment
01:45 AM Vitals
02:53 AM Treatment
02:53 AM Vitals
03:34 AM Vitals
03:34 AM Treatment
03:34 AM Treatment
03:34 AM Vitals
03:34 AM Treatment

B6

B6

Client: **B6**
Patient:

Patient History

B6	03:35 AM	Treatment	B6
	03:43 AM	Treatment	
	03:43 AM	Vitals	
	04:50 AM	Treatment	
	04:50 AM	Vitals	
	04:52 AM	Vitals	
	05:25 AM	Treatment	
	05:25 AM	Vitals	
	05:25 AM	Treatment	
	05:27 AM	Treatment	
	05:27 AM	Vitals	
	05:27 AM	Treatment	
	05:27 AM	Vitals	
	05:28 AM	Treatment	
	05:28 AM	Vitals	
	06:41 AM	Treatment	
	06:42 AM	Vitals	
	07:25 AM	Treatment	
	07:25 AM	Vitals	
	07:26 AM	Treatment	
	07:26 AM	Vitals	
	07:26 AM	Treatment	
	07:26 AM	Vitals	
	07:26 AM	Vitals	
	08:56 AM	Treatment	
	08:56 AM	Vitals	
	09:31 AM	UserForm	
	09:39 AM	Purchase	
	09:47 AM	Treatment	
	09:47 AM	Vitals	
09:50 AM	Treatment		
09:50 AM	Vitals		
09:50 AM	Treatment		
09:50 AM	Vitals		
09:50 AM	Treatment		
10:21 AM	Labwork		
11:05 AM	Purchase		
11:05 AM	Treatment		
11:05 AM	Vitals		
11:25 AM	Treatment		
11:25 AM	Treatment		
11:48 AM	Purchase		
11:48 AM	Treatment		
12:00 PM	Treatment		
12:00 PM	Vitals		

Client: **B6**
Patient: **B6**

Patient History

B6	12:00 PM	Treatment	B6
	12:00 PM	Vitals	
	12:05 PM	Vitals	
	12:05 PM	Treatment	
	12:55 PM	Treatment	
	12:55 PM	Vitals	
	01:01 PM	Treatment	
	01:55 PM	Treatment	
	01:55 PM	Vitals	
	03:12 PM	Treatment	
	03:12 PM	Vitals	
	03:17 PM	Treatment	
	03:17 PM	Treatment	
	03:17 PM	Vitals	
	03:55 PM	Prescription	
	03:56 PM	Prescription	
	04:02 PM	Treatment	
	04:02 PM	Vitals	
	04:02 PM	Prescription	
	04:03 PM	Prescription	
04:20 PM	Purchase		
12:52 PM	Appointment		

Appointment Made for 5/8/2019 10:30:00 AM for **B6** for DCM STUDY - 3 month recheck

B6

B6

B6

Female (Spayed)

Canine English Bulldog Brown/White

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:

B6

B6

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

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	Estimate to include hospitalization, supportive care, bloodwork, imaging, cardiology consultation as indicated, medications, and other treatments or diagnostics as warranted.	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	

Radiology Request & Report

Patient

Name: B6
Species: Canine
Brown/White Female (Spayed)
English Bulldog
Birthdate: B6

Owner

Name: B6
Address: B6
B6

Patient ID: B6
Date of request: B6

Attending Clinician: B6 DVM (Emergency & Critical Care Resident)

Student:

Date of exam: B6

Patient Location: Ward/Cage: ICU 02

Weight (kg) 19.80

- Inpatient
- Outpatient Time:
- Waiting
- Emergency

Sedation

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

Examination Desired: 3-view thorax (prioritize VD/DV and L lat)

Presenting Complaint and Clinical Questions you wish to answer:
Emergency

Pertinent History:
acute onset dyspnea, no known hx - pneumonia vs CHF

Findings:

THORAX, THREE VIEWS:

The cardiac silhouette is mildly enlarged, characterized by increased height on the lateral view, with mild dorsal displacement of the carina. There is mild left atrial enlargement. The pulmonary vessels are normal. There is a patchy interstitial pattern throughout the pulmonary parenchyma with corresponding blurring of vessel margins. There is multifocally increased conspicuity of the bronchi, most apparent in the right cranial and middle lung lobes. The pleural space is normal. The mediastinum is widened and fat-filled consistent with breed. The included abdomen is unremarkable. There is multifocal intervertebral disk space narrowing with endplate sclerosis, multifocal vertebral anomalies, ventral spondylosis deformans. There is moderate bilateral elbow and right stifle degenerative joint disease.

Conclusions:

- Diffuse bronchial and interstitial pulmonary pattern may indicate concurrent chronic lower airway disease (allergic, infectious, or parasitic) and interstitial lung disease. Airway sampling can be considered.
- Mild cardiomegaly and left atrial enlargement without evidence of decompensation. Echocardiography can be considered (to evaluate mitral valve and to evaluate for pulmonary hypertension).

B6

Radiologists

Primary: **B6** DVM

Reviewing:

Dates

Reported: **B6**

Finalized:

Discharge Instructions

Patient

Name: B6

Species: Canine

Brown/White Female (Spayed) English

Bulldog

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 1 PM

Discharge Date: B6

Diagnoses: Dilated cardiomyopathy (DCM) with congestive heart failure**Diagnostic test results and findings:**

- o **Chest radiograph (x-ray) findings:** The heart is enlarged and there was suspected fluid in the lungs
- o **Echocardiogram findings:** All chambers of the heart are enlarged and there is decreased contractile function.
- o **ECG findings:** The ECG showed a normal sinus rhythm
- o **Labwork findings:** The kidney values are normal, but an indicator of heart damage was elevated (Nt-proBNP)

Case summary:

Thank you for bringing B6 to Tufts for evaluation of her heart disease. B6 originally presented to the Tufts ER on B6 for sudden onset of respiratory distress and a cough. B6 was stabilized with supplemental oxygen in the ICU and was given antibiotics and mild sedatives to keep her comfortable. X-rays of B6 chest showed a diffuse increased opacity in her lungs that was suspected to be fluid secondary to heart disease, but pneumonia could not be ruled out. A cardiology workup showed that B6 had enlargement of her heart chambers, and a blood test showed that one of the indicators of heart stretch was elevated, thus supporting the presence of heart disease.

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 her breathing easier.

B6 has been breathing well outside of the oxygen cage, and her recheck examinations, echocardiograms, and chest x-rays have been stable. At this time we are happy with her condition, and are comfortable to send her home.

Monitoring at home:

- o We would like you to monitor your dog's 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.
- o 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.
- o 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.
- o 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 (<https://vet.tufts.edu/heartsmart/at-home-monitoring/>).
- o 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.
- o 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

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 her to continue to eat her normal diet for the first 7 to 14 days so we can make sure she 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.

The FDA is currently investigating an apparent association between diet and DCM. 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/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/>).

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 Bower

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).

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, she is such a spirited girl! Please contact our Cardiology liaison at (508)-887-4696 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

Radiology Request & Report

Patient

Name: B6
Species: Canine
Brown/White Female (Spayed)
English Bulldog
Birthdate: B6

Owner

Name: B6
Address: B6
B6

Patient ID: B6
Date of request: B6

Attending Clinician: B6 DVM (Resident, Cardiology) Student: B6

Date of exam: B6

Patient Location: Ward/Cage: Cardio, ICU

Weight (kg) 19.60

- Inpatient
- Outpatient Time:
- Waiting
- Emergency

Sedation

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

Examination Desired: 2 view CXR- DV and R lateral

****TECHS TO HANDLE ONLY**-** be careful due to dyspnea, do not stress further if dyspneic

Presenting Complaint and Clinical Questions you wish to answer:

Recheck rads for CHF before discharge

Pertinent History:

DCM, suspected CHF on rads B6

Findings:

THORAX, THREE VIEWS: in comparison to previous exam dated B6
The cardiac silhouette is similarly mildly enlarged, characterized by increased height on the lateral view, with mild dorsal displacement of the carina. There is similar to mildly improved left atrial enlargement. The pulmonary vessels remain normal. The previously described diffuse patchy interstitial pattern is improved but not completely resolved and the bronchial component of the pulmonary pattern is no longer appreciated.

The pleural space is again normal. The mediastinum is widened and fat-filled consistent with breed. The included abdomen is unremarkable. There is multifocal intervertebral disk space narrowing with endplate

sclerosis, multifocal vertebral anomalies, ventral spondylosis deformans. There is unchanged moderate bilateral elbow and right stifle degenerative joint disease.

Conclusions:

- Improving interstitial pulmonary pattern is consistent with response to medical management.
- Unchanged mild cardiomegaly and similar to mildly improved left atrial enlargement.

B6

Radiologists

Primary: **B6** VMD

Reviewing:

Dates

Reported: **B6**

Finalized:

Cummings Veterinary Medical Center

AT TUFTS UNIVERSITY
Cardiology Liaison: 508-887-4696

B6

Patient ID: **B6**

B6 Canine

B6 Years Old Female (Spayed) English
Bulldog

Brown/White BW: Weight (kg) 19.80

Cardiology Inpatient ENROLLED IN DCM STUDY

Date: **B6**

Weight: Weight (kg) 19.80

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 02 5/6

Presenting complaint and important concurrent diseases:

Presenting for new onset dyspnea, radiographs unintelligible between pneumonia and CHF. Persistent sinus tachycardia overnight

Current medications and doses:

B6

At-home diet: (name, form, amount, frequency)

Core Wellness grain-free wet + dry

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

dyspnea, contiguous B-lines

Questions to be answered:

fluid vs. lasix

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:

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

Cardiovascular Physical Exam

Murmur Grade: Very hard to listen due to the marked dyspnea and referred upper airway.

- | | |
|--|--------------------------------|
| <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 | |

Murmur location/description:

Jugular vein:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Bottom 1/3 of the neck | <input type="checkbox"/> Top 2/3 of the neck |
| <input type="checkbox"/> Middle 1/3 of the neck | <input type="checkbox"/> 1/2 way up the neck |

Arterial pulses: n/a

- | | |
|---------------------------------|--|
| <input type="checkbox"/> Weak | <input type="checkbox"/> Bounding |
| <input type="checkbox"/> Fair | <input type="checkbox"/> Pulse deficits |
| <input type="checkbox"/> Good | <input type="checkbox"/> Pulsus paradoxus |
| <input type="checkbox"/> Strong | <input type="checkbox"/> Other (describe): |

Arrhythmia:

- | | |
|---|--------------------------------------|
| <input checked="" type="checkbox"/> None | <input type="checkbox"/> Bradycardia |
| <input type="checkbox"/> Sinus arrhythmia | <input type="checkbox"/> Tachycardia |
| <input type="checkbox"/> Premature beats | |

Gallop:

- | | |
|--|-------------------------------------|
| <input type="checkbox"/> Yes | <input type="checkbox"/> Pronounced |
| <input checked="" type="checkbox"/> No | <input type="checkbox"/> Other: |
| <input type="checkbox"/> Intermittent | |

Pulmonary assessments:

- | | |
|--|---|
| <input type="checkbox"/> Eupneic | <input type="checkbox"/> Pulmonary Crackles |
| <input type="checkbox"/> Mild dyspnea | <input type="checkbox"/> Wheezes |
| <input checked="" type="checkbox"/> Marked dyspnea | <input type="checkbox"/> Upper airway stridor |
| <input type="checkbox"/> Normal BV sounds | <input type="checkbox"/> Other auscultatory findings: |

Abdominal exam: n/a

- Normal
- Hepatomegaly

- Abdominal distension
- Mild ascites

Echocardiogram Findings:

B6

Mitral inflow:

- Summated
- Normal
- Delayed relaxation

- Pseudonormal
- Restrictive

Radiographic findings:

B6

Assessment and recommendations:

Despite the poor quality of the echocardiogram pictures obtained today, we suspect the patient to have DCM with moderate to marked LA enlargement. The radiographs are very hard to interpret, typical for bulldog radiographs, but we suspect CHF to be one of the main differential despite the atypical pattern visualized. Treatment for HF should be initiated and improvement of the clinical condition would be a vote in favor for CHF. **B6** treatment should be continued since pneumonia cannot be completely rule out. **B6** / was given during the echocardiogram and we would recommend continuing with at least 2 mg/kg IV TID overnight. **B6** mg PO BID should be started as well. The patient was enrolled in Dr. Freeman's study due to its current grain free diet and blood was pulled today for the study. The patient, once more stable, should be started on taurine at home as well. An NT-proBNP was pulled and will be very interesting in order to better assess the cardiovascular status of the patient since there is still some suspicions that the changes seen on radiographs are not all secondary to CHF. An ACEI should be started long term as well. Chest radiographs could be repeated tomorrow after the

patient has received some **B6**. An improvement of the interstitial pattern would confirm the suspected diagnosis of CHF versus no changes of the interstitial pattern would be more in favor of another disease process. A recheck echocardiogram should be repeated as well tomorrow once the patient is more stable in order to confirm today's findings. Bloodwork should be repeated tomorrow as well as 10-14 days after the start of the cardiac medications. Full recheck echocardiogram is recommended in 3 months or sooner if the patient develops clinical signs consistent with worsening heart disease.

Addendum:

Patient's NT-proBNP was **B6**. A good improvement was noted with CHF treatment and recheck radiographs revealed improvement of the previously diagnosed interstitial pattern. The patient is scheduled to go home today with a recheck in 7-10 days.

Final Diagnosis:

- Suspected DCM with moderate to marked LA enlargement and suspected CHF.

Heart Failure Classification Score:

ISACHC Classification:

- Ia
- Ib
- II
- IIIa
- IIIb

ACVIM CHF 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

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
SA LA / Ao Diam
IVSd
LVIDd
LVPWd
EDV(Teich)
IVSs
LVIDs
LVPWs
ESV(Teich)
EF(Teich)
%FS
SV(Teich)
IVSd
LVIDd
EDV(Teich)
LVPWd

B6

cm
cm
cm
cm
ml
cm
cm
cm
ml
cm
ml
%
%
ml
cm
cm
ml
cm

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/>
Referring Vet Direct Line: 508-887-4988

Notice of Patient Admit

Date: B6 7:49:24 PM
Referring Doctor: B6
Client Name:
Patient Name: B6

Case #: B6

Dear B6

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: Dyspnea (pneumonia > CHF)

If you have any questions regarding this particular case, please call 508-887-4988 to reach the ICU 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/Chloe>

B6

B6 Female (Spayed)
Canine English Bulldog
Brown/White
B6

Daily Update From the Cardiology Service

Today's date: **B6**
Dear Drs at: **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
- discharged from the hospital today

Today's treatments include:

- bloodwork planned/pending
- echocardiography - DCM and L-CHF
- cardiac catheter procedure planned
- ongoing treatment for CHF
- 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** DVM (Resident, Cardiology)
Faculty Clinician: John Rush DVM, DACVIM, DACVECC
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 English Bulldog

Brown/White

B6

1/21/2019

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 (Resident, Cardiology)

From: PFR Event <pfreventcreation@fda.hhs.gov>
To: Cleary, Michael *; HQ Pet Food Report Notification; B6
Sent: 2/25/2019 1:05:02 PM
Subject: Wellness CORE Grain-Free Ocean Whitefish dry-Wellness Core grain free turkey: Lisa Freeman - EON-380743
Attachments: 2063134-report.pdf; 2063134-attachments.zip

A PFR Report has been received and PFR Event [EON-380743] has been created in the EON System.

A "PDF" report by name "2063134-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 "2063134-attachments.zip" and is attached to this email notification.

Below is the summary of the report:

EON Key: EON-380743

ICSR #: 2063134

EON Title: PFR Event created for Wellness CORE Grain-Free Ocean Whitefish dry Wellness Core grain free turkey chicken liver and turkey liver formula canned Wellness Core Hearty Cuts grain-free in gravy chicken and turkey recipe; 2063134

AE Date	02/01/2019	Number Fed/Exposed	6
Best By Date		Number Reacted	3
Animal Species	Dog	Outcome to Date	Stable
Breed	Bulldog		
Age	8 Years		
District Involved	PFR-New England DO		

Product information

Individual Case Safety Report Number: 2063134

Product Group: Pet Food

Product Name: Wellness CORE Grain-Free Ocean Whitefish dry Wellness Core grain free turkey, chicken liver, and turkey liver formula canned Wellness Core Hearty Cuts grain-free in gravy chicken and turkey recipe

Description: Housemate (half sister; B6) - (ICSR) of 2063133) diagnosed with DCM and CHF so screened by RDVM for BNP which was elevated. Evaluated at Tufts 2/1/19. ARVC/diet-induced DCM with

ventricular arrhythmia. Diet changed to Royal Canin Early Cardiac and will re-evaluate in 3 months I have diet sample. 3 other dogs in household (1 had normal BNP, other 2 not yet evaluated)

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: 6

Number of Animals Reacted With Product: 3

Product Name	Lot Number or ID	Best By Date
Wellness CORE Grain-Free Ocean Whitefish dry Wellness Core grain free turkey, chicken liver, and turkey liver formula canned Wellness Core Hearty Cuts grain-free in gravy chicken and turkey recipe		

Sender information

Lisa Freeman
200 Westboro Rd
North Grafton, MA 01536
USA

Owner information

B6

JSA

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

<https://eon.fda.gov/eon//browse/EON-380743>

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=397752>

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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secret and confidential commercial information that you receive from the U.S. Food and Drug Administration from further disclosure. The information in the report is intended for situational awareness and should not be shared or acted upon independently. Any and all actions regarding this information should be coordinated through your local district FDA office.

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.

Report Details - EON-380743

ICSR: 2063134
Type Of Submission: Initial
Report Version: FPSR.FDA.PETF.V.V1
Type Of Report: Adverse Event (a symptom, reaction or disease associated with the product)
Reporting Type: Voluntary
Report Submission Date: 2019-02-25 07:58:43 EST

Reported Problem:
Problem Description: Housemate (half sister **B6**) (ICSR) of 2063133) diagnosed with DCM and CHF so screened by RDVM for BNP which was elevated. Evaluated at Tufts 2/1/19. ARVC/diet-induced DCM with ventricular arrhythmia. Diet changed to Royal Canin Early Cardiac and will re-evaluate in 3 months I have diet sample. 3 other dogs in household (1 had normal BNP, other 2 not yet evaluated)
Date Problem Started: 02/01/2019
Concurrent Medical Problem: Yes
Pre Existing Conditions: **B6** trauma as puppy
Outcome to Date: Stable

Product Information:
Product Name: Wellness CORE Grain-Free Ocean Whitefish dry Wellness Core grain free turkey, chicken liver, and turkey liver formula canned Wellness Core Hearty Cuts grain-free in gravy chicken and turkey recipe
Product Type: Pet Food
Lot Number:
Product Use Information: **Description:** Please see diet history for more info (and refer to **B6** **B6** diet history for more complete info - all dogs eat same diets)
Manufacturer /Distributor Information:
Purchase Location Information:

Animal Information:
Name: **B6**
Type Of Species: Dog
Type Of Breed: Bulldog
Gender: Male
Reproductive Status: Neutered
Weight: 22.1 Kilogram
Age: 8 Years
Assessment of Prior Health: Good
Number of Animals Given the Product: 6
Number of Animals Reacted: 3

Owner Information: **Owner Information provided:** Yes
Contact: **Name:** **B6**
Phone: **B6**
Email: **B6**
Address: **B6**
United States
Healthcare Professional Practice Name: Tufts Cummings School of Veterinary Medicine

	Information:	Contact:	Name: Lisa Freeman
			Phone: (508) 887-4523
			Email: lisa.freeman@tufts.edu
		Address:	200 Westboro Rd North Grafton Massachusetts 01536 United States
Sender Information:	Name:	Lisa Freeman	
	Address:	200 Westboro Rd North Grafton Massachusetts 01536 United States	
	Contact:	Phone:	5088874523
		Email:	lisa.freeman@tufts.edu
	Permission To Contact Sender:	Yes	
Preferred Method Of Contact:	Email		
Additional Documents:	Attachment:	rpt_medical_record_preview.pdf	
	Description:	Medical record	
	Type:	Medical Records	

Client:
Address: **B6**

Home Phone:
Work Phone:
Cell Phone: **B6**

All Medical Records

Patient: **B6**
Breed: English Bulldog
DOB: **B6**

Species: Canine
Sex: Male
(Neutered)

Referring Information

B6

Client: **B6**
Patient:

Initial Complaint:

Initial Complaint:

Initial Complaint:

Initial Complaint:

Client:
Patient:

B6

Initial Complaint:

Scanned Record

Initial Complaint:

Cardiology DCM study - will come fasted - u/f samples

SOAP Text Feb 1 2019 11:50AM - Rush, John

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: **B6**
Visit ID:

Patient:	B6
Species:	Canine
Breed:	English Bulldog
Sex:	Male (Neutered)
Age:	B6 Years Old

Lab Results Report

Accession ID:			
Test	Results	Reference Range	Units



Client: **B6**
 Patient: **B6**

IDEXX Hematology 1/24/19



B6
 PET OWNER: **B6**
 SPECIES: Canine
 BREED:
 GENDER: Male
 AGE: 8 Years
 MITREAT ID: 5689

B6
 ACCOUNT # 84116
 ATTENDING VET **B6**

LAB ID: 2302815220
 ORDER ID: 38459535
 COLLECTION DATE: 1/23/19
 DATE OF RECEIPT: 1/24/19
 DATE OF RESULT: 1/24/19

IDEXX Services: Senior Profile with Fecal Dx™ Profile, Giardia, Lab 4Dx® Plus and Reflex Quant C6® and UPC Select, SAMPLE/TEST INFO NEEDED, Cardlopet® proBNP-Canine Add-on*

Hematology

1/24/19 (Order Received)
 1/24/19 11:06 AM (Last Updated)

3/2/17

TEST	RESULT	REFERENCE VALUE
RBC	B6	5.39 - 8.7 M/μL
Hematocrit		38.3 - 56.5 %
Hemoglobin		13.4 - 20.7 g/dL
MCV		59 - 76 fL
MCH		21.9 - 26.1 pg
MCHC		32.6 - 39.2 g/dL
% Reticulocyte		%
Reticulocytes		10 - 110 K/μL
Reticulocyte Hemoglobin		22.3 - 29.6 pg
WBC		4.9 - 17.6 K/μL
% Neutrophils		%
% Lymphocytes		%
% Monocytes		%
% Eosinophils		%
% Basophils		%
Neutrophils		2.94 - 12.67 K/μL
Lymphocytes		1.06 - 4.95 K/μL
Monocytes		0.13 - 1.15 K/μL
Eosinophils		0.07 - 1.49 K/μL
Basophils		0 - 0.1 K/μL
Platelets	143 - 448 K/μL	
Remarks	Slide reviewed microscopically. No parasites seen	SLIDE REV...

B6

Client: **B6**
Patient:

IDEXX Hematology 1/24/19



B6

RETOWNER: **B6**

DATE OF TERM: **1/24/19**

LAB ID: 2302815220

Chemistry

1/24/19 (Order Received)
1/24/19 11:05 AM (Last Updated)

3/2/17

TEST	RESULT	REFERENCE VALUE
Glucose		63 - 114 mg/dL
IDEXX SDMA		0 - 14 µg/dL
Creatinine		0.5 - 1.5 mg/dL
BUN		9 - 31 mg/dL
BUN: Creatinine Ratio		
Phosphorus		2.5 - 6.1 mg/dL
Calcium		8.4 - 11.8 mg/dL
Sodium		142 - 152 mmol/L
Potassium		4.0 - 5.4 mmol/L
Na: K Ratio		28 - 37
Chloride		108 - 119 mmol/L
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
Albumin: Globulin 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		131 - 345 mg/dL
Amylase		337 - 1,469 U/L
Lipase		138 - 755 U/L
Creatine Kinase		10 - 200 U/L

B6

B6

Client: **B6**
Patient:

IDEXX Hematology 1/24/19



B6

RETURNS **B6**

DATE OF REEMP: 1/24/19

LAB ID: 2302815220

Chemistry (continued)

TEST	RESULT	REFERENCE VALUE
Hemolysis Index	B6	B6
Lipemia Index		
Cardiopet proBNP - Canine		

- a BOTH SIDA 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.
 - b Index of N, 1+, 2+ exhibits no significant effect on chemistry values.
 - c Index of N, 1+, 2+ exhibits no significant effect on chemistry values.
 - d Cardiopet proBNP >1800pmol/L Abnormal. NT-proBNP concentration is compatible with increased stretch and stress on the myocardium. Clinically significant heart disease is likely at this time. For dogs (<20kg) with mitral valve disease (MVD), there is increased risk of heart failure within the next 12 months. If clinical signs (i.e. respiratory and/or exercise intolerance) are present, they are likely due to heart failure. Additional diagnostics including thoracic radiographs, electrocardiogram and echocardiogram are strongly recommended to diagnose and assess severity of cardiac disease.
- 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.

Endocrinology

1/24/19 (Order Received)
1/24/19 11:05 AM (Last Updated)

3/2/17

TEST	RESULT	REFERENCE VALUE
Total T4	B6	1 - 4 µg/dL

- a Dogs with no clinical signs of hypothyroidism and results within the reference interval are likely euthyroid. For dogs on thyroid supplement, recommended therapeutic levels are 2.1-5.4 µg/dL.

Serology

1/24/19 (Order Received)
1/24/19 11:05 AM (Last Updated)

TEST	RESULT
Heartworm Antigen	B6

Client: **B6**
Patient: **B6**

IDEXX Hematology 1/24/19



B6

PET OWNER **B6**

DATE OF RESULT **1/24/19**

LAB ID: 2302815220

Serology (continued)

TEST	RESULT
B6	

Other

1/24/19 (Order Received)
1/24/19 11:05 AM (Last Updated)

TEST
More Information
Needed

TEST	RESULT
	B6

Client: **B6**
 Patient: **B6**

cbc and profile 2/1/19

Cummings School of Veterinary Medicine

Clinical Pathology Laboratory
 200 Westboro Road
 North Grafton, MA 01536

Name/DOB: **B6**
 Patient ID: **B6**
 Phone number:
 Collection Date: 2/1/2019 11:52 AM
 Approval date: 2/1/2019 12:57 PM

Sex: CM
 Age: 8
 Species: Canine
 Breed:

Provider: Dr. John Rush
 Order Location: V320559: Investigation into
 Sample ID: 1902010102

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

CBC, Comprehensive, Sm Animal (Research)

B6

WBC (ADVIA)	B6	B6	K/uL	4.40-15.10
RB C (Advia)			M/uL	5.80-8.50
Hemoglobin (ADVIA)			g/dL	13.3-20.5
Hematocrit (Advia)			%	39-55
MCV (ADVIA)			fL	64.5-77.5
MCH (ADVIA)			pg	21.3-25.9
CHCM			g/dl	
MCHC (ADVIA)			g/dL	31.9-34.3
RDW (ADVIA)				11.9-15.2
Platelet Count (Advia)			B6	K/uL
Mean Platelet Volume (Advia)		fL	8.29-13.20	

02/01/19 12:12 PM

B6

Platelet Crit
 02/01/19 12:12 PM

0.129-0.403

PDW	B6		%	
Reticulocyte Count (Advia)		B6	%	0.20-1.60
Absolute Reticulocyte Count (Advia)		B6	K/uL	14.7-113.7
CHr	B6		pg	
MCVr		fL		
Comments (Hematology)				

Microscopic Exam of Blood Smear (Advia)

B6

Seg Neuts (%)	B6	B6	%	43-86
Lymphocytes (%)			%	7-47
Monocytes (%)			%	1-15
Eosinophils (%)			%	0-16
Seg Neutrophils (Abs) Advia			K/uL	2.800-11.500
Lymphs (Abs) Advia			K/uL	1.00-4.80
Mono (Abs) Advia			K/uL	0.10-1.50
Eosinophils (Abs)			K/uL	0.00-1.40

Sample ID: 19020101021
 This report continues. (Final)

Reviewed by: _____

Client: **B6**
 Patient:

cbc and profile 2/1/19

Cummings School of Veterinary Medicine

Clinical Pathology Laboratory
 200 Westboro Road
 North Grafton, MA 01536

Name/DOB: B6	Sex: CM	Provider: Dr. John Rush
Patient ID: B6	Age: 8	Order Location: V320559: Investigation into
Phone number:	Species: Canine	Sample ID: 1902010102
Collection Date: 2/1/2019 11:52 AM	Breed:	
Approval date: 2/1/2019 12:57 PM		

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

Microscopic Exam of Blood Smear (Advia) (cont'd) B6

Advia
 WBC Morphology **B6**
 RBC Morphology

Research Chemistry Profile - Small Animal (Cobas) B6

Glucose			mg/dL	67-135
Urea			mg/dL	8-30
Creatinine			mg/dL	0.6-2.0
Phosphorus			mg/dL	2.6-7.2
Calcium 2			mg/dL	9.4-11.5
Magnesium 2+			mEq/L	1.8-3.0
Total Protein			g/dL	5.5-7.8
Albumin		B6	g/dL	2.8-4.0
Globulins			g/dL	2.3-4.2
A/G Ratio				0.7-1.6
Sodium			mEq/L	140-150
Chloride			mEq/L	106-116
Potassium	B6		mEq/L	3.7-5.4
tCO2(Bicarb)			mEq/L	14-28
AGAP				8.0-19.0
NA/K				29-40
Total Bilirubin			mg/dL	0.10-0.30
Alkaline Phosphatase			U/L	12-127
GGT			U/L	0-10
ALT			U/L	14-86
AST			U/L	9-54
Creatine Kinase			U/L	22-422
Cholesterol			mg/dL	82-355
Triglycerides			mg/dl	30-338
Amylase			U/L	409-1250
Osmolality (calculated)		B6	mmol/L	291-315

Sample ID: 19020101022
 END OF REPORT (Final)

Reviewed by: _____
 Page 2

Client: **B6**
Patient: **B6**

NT-proBNP 2/1/19

IDEXX Reference Laboratories

Client: **B6** Patient: **B6**

Client: **B6**
Patient: **B6**
Species: CANINE
Breed: ENGLISH_BULLDOG
Gender: MALE NEUTERED
Age: 8Y

Date: 02/01/2019
Requisition #: 439225
Accession #: **B6**
Ordered by: RUSH

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	Unit	Normal	Flag
CARDIOPET proBNP - CANINE	B6	0 - 900 pmol/L	FBGH		B6

Comments

1 **B6**

Please note: Complete interpretive comments for all concentrations of Cardipet 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**

CBC/CHEM



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: 8	Order Location: V320559: Investigation into
Phone number:	Species: Canine	Sample ID: 1902010102
Collection Date: 2/1/2019 11:52 AM	Breed:	
Approval date: 2/1/2019 12:57 PM		

CBC, Comprehensive, Sm Animal (Research)

CSTCYR		Ref. Range/Males
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) H		
Mean Platelet Volume (Advia)		8.29-13.20 fl
02/01/19 12:12 PM	B6	
Platelet Crit		0.129-0.403 %
02/01/19 12:12 PM	B6	
PDW		
Reticulocyte Count (Advia) H		0.20-1.60 %
Absolute Reticulocyte Count (Advia) H	B6	14.7-113.7 K/uL
CHr		
MCVr		
Comments (Hematology)	platelets/100x field (estimated count of >500,000/uL)	

Microscopic Exam of Blood Smear (Advia)

CSTCYR		Ref. Range/Males
Seg Neuts (%)	B6	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	No Morphologic Abnormalities	
RBC Morphology	No morphologic abnormalities	

Research Chemistry Profile - Small Animal (Cobas)

Sample ID: 19020101021
 This report continues... (Final)

Reviewed by: _____

Client: **B6**
Patient:

CBC/CHEM



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: 8	Order Location: V320559: Investigation into
Phone number:	Species: Canine	Sample ID: 1902010102
Collection Date: 2/1/2019 11:52 AM	Breed:	
Approval date: 2/1/2019 12:57 PM		

Research Chemistry Profile - Small Animal (Cobas) (cont'd)

		Ref. Range/Males
SMACHUNSK		
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	L	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		30-338 mg/dl
Amylase		409-1250 U/L
Osmolality (calculated)	L	291-315 mmol/L

Sample ID: 1902010102/2
REPRINT: Omg. printing on 2/1/2019 (Final)

Reviewed by: _____
Page 2

Client: **B6**
Patient: **B6**

Taurine level

27291 PLD
WBS @

B6
2/1/2019 vet Race
SHIP w ICE PACKS, TAURINE
PANEL
Lithium Heparin
RUSH

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: English Bulldog Owner's Name: **B6**

Current Diet: Wellness Core

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:

Diet history 2/1/19

CARDIOLOGY DIET HISTORY FORM

Please answer the following questions about your pet

Pet's name: **B6** Owner's name: **B6** Today's date: 02-01-19

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 your 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
Wellness Core Camed chicken	wet	4 oz	7x/day	Dec 2015
Wellness Core fish	dry	1/4 cup	2x/day	Dec 2015
Wellness Core	treat	3 pcs	1x/day	"
(See B6 copy for extra brands/foods)				

*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 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
_____	_____	_____
_____	_____	_____
_____	_____	_____

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): _____

CHANGING DIET TO ROYAL CANIN EARLY ON/DIET

Client: **B6**
Patient:

Troponin 2/1/19



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

Dr. Freeman	Phone:	508 887 4669
Tufts University-Clinical Pathology Lab	Fax:	9 508 839 7936
Attn: Joyce Knoll	Animal Name:	B6
200 Westboro Road	Owner Name:	Canine
North Grafton, MA 01536	Species:	
USA	Date Received:	Feb 12, 2019

GI Lab Accession: **B6**

<u>Test</u>	<u>Result</u>	<u>Control Range</u>	<u>Assay Date</u>
Ultra-Sensitive Troponin I Fasting	B6 ng/mL	≤0.06	02/12/19

Interpretation: Increased troponin I value. If clinical signs of heart disease are present, additional diagnostic work-up is recommended. Patients who are being supplemented with biotin may exhibit a slightly higher ultra-sensitive troponin result (10% or lower); however, the ability of the assay to detect serial increases or decreases of ultra-sensitive troponin is maintained.

Comments:

Client:
Patient:

B6

Troponin 2/1/19

**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 naive 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 >400 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:
Patient:

B6

Vitals Results

2/1/2019 11:00:04 AM Weight (kg) 22.1000

Patient History

01/28/2019 03:52 PM	Appointment
02/01/2019 08:05 AM	UserForm
02/01/2019 08:05 AM	UserForm
02/01/2019 10:37 AM	UserForm
02/01/2019 10:38 AM	UserForm
02/01/2019 10:44 AM	Purchase
02/01/2019 11:00 AM	Vitals
02/01/2019 12:03 PM	UserForm
02/01/2019 12:50 PM	Appointment
02/01/2019 12:58 PM	Prescription
02/20/2019 12:08 PM	Patient Merge
02/21/2019 04:32 PM	Purchase
02/21/2019 04:32 PM	Purchase

B6

B6

B6

Male (Neutered)

Canine English Bulldog Brown/White

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: 2/1/2019

Owner's address:

B6

~~Date~~ 01-02-19

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
36 Canine
B6: Years Old Male (Neutered) English
Bulldog
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: 2/1/2019

Cardiology Liaison: 508-887-4696

Discharge Instructions

Patient

Name: B6

Species: Canine

Brown/White Male (Neutered) English

Bulldog

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

Veterinary Nutritionist : Dr. Lisa Freeman

Student: B6 V19

Admit Date: 2/1/2019 10:36:11 AM

Discharge Date: 2/1/2019

Diagnoses: Arrhythmogenic right ventricular cardiomyopathy (ARVC) with marked right heart enlargement, ventricular premature depolarizations, and left ventricular dysfunction; possible component of diet-related cardiomyopathy

Clinical findings: B6 has been diagnosed with a primary heart muscle disease called arrhythmogenic right ventricular cardiomyopathy (ARVC). This disease is common in bulldogs and is characterized by replacement of the normal heart muscle by fat and/or scar tissue which may result in serious ventricular arrhythmias (abnormal heart rhythms originating from the lower chamber of the heart), cardiac enlargement and congestive heart failure, or both. Dogs with ARVC may experience syncope (fainting) or sudden death as the result of ventricular arrhythmia. Though we cannot reverse the changes in the heart muscle, we can control the heart disease with medical management.

The following diagnostic test results were obtained today:

ECG findings: The ECG shows a number of premature ventricular contractions (VPCs) originating from the right ventricle.

Echocardiogram findings: The right ventricle is moderate to markedly enlarged. The left ventricle is mildly dilated with the left ventricular free wall thinned. There is reduced vigor of contraction of the left ventricle. The left atrium is mildly to moderately enlarged. The right atrium is moderately to markedly enlarged. There is some mitral and tricuspid valve regurgitation. The hepatic veins are markedly distended.

Monitoring at home: Please monitor for any signs of lethargy, weakness, pale gums, cough, shortness of breath, inappetence, or collapse. If a collapsing episode is noted, please check your dog's gum color and try to get a sense of whether the heart rate is slow or fast. If you have an iPhone or Android smartphone device, you may want to explore the

option of purchasing the Kardia Mobile device which will allow you to monitor the heart rate and rhythm at home (www.alivetec.com). If you have any concerns, please call or have your dog evaluated by a veterinarian. Our emergency clinic is open 24 hours/day.

B6 may also benefit from wearing a Holter EKG, which is a harnessed EKG that he would wear for 24 hours. We can place that here, and send him home for the 24 hours duration. He would then return here the next day where we can remove the Holter and analyze his heart rhythm to fully assess his arrhythmia. Call if you decide to do this test.

Recommended Medications:

B6

Diet suggestions: Dogs with ARVC may benefit from the addition of omega-3 fatty acids (fish oil) to the diet. Diets such as the Royal Canin Boxer or Early Cardiac diet, or Hill's j/d have ample fish oil and may not require much (or any) additional supplementation. Additional information on supplements such as fish oil or other supplements that you might have questions about may be found on the Tufts HeartSmart web site: (<http://vet.tufts.edu/heartsmart/diet/>).

- 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.

Dry Food Options:

Royal Canin Early Cardiac (veterinary diet)

Royal Canin Boxer

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+

We recommend slowly introducing one of the diets on the above list as follows: 25% of the new diet mixed with 75% old diet for 2-3 days, then 50:50, etc.

Hopefully you can find a diet on the list that **B6** will enjoy!

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: Generally we recommend limited activity for dogs with heart disease – Leash walk only is ideal. Repetitive or strenuous high energy activities (repetitive ball chasing, running fast off-leash, etc.) are not recommended as these activities may result in worsened arrhythmia or even sudden death.

Recheck visits: We would like to recheck **B6** in 3 months, at which point we can discuss additional medications and

treatments as needed (such as antiarrhythmics). We will likely recommend recheck ECGs every 3 months, or you can purchase the AliveCor and send us an ECG about once a month.

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

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

B6 Years Old Male (Neutered) English Bulldog
Brown/White

Cardiology Appointment Report Enrolled in DCM Study

Date: 2/1/2019

Attending Cardiologist:

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

B6

Cardiology Resident:

B6

Cardiology Technician:

B6

Student: B6 V19

Presenting Complaint: Here for possible entry to DCM study. Half-sister B6 came in last month for CHF. B6 had high proBNP on bloodwork B6.

Concurrent Diseases:

B6

General Medical History:

B6

O says seen at Tufts.

Sedentary lifestyle, but healthy. Half-sister B6 here last month in CHF, which is what started concerns for DCM.

Fasted today.

Had reason for concern of DCM based on diet and sister, came in based on NTproBNP level.

Diet and Supplements:

Grain free diet- Wellness Core. Chicken and Turkey wet food 4oz BID. Fish dry food 1/4 cup BID.

No supplements or treats.

Cardiovascular History:

Prior CHF diagnosis? N

Prior heart murmur? N

Prior ATE? N

Prior arrhythmia? N

Monitoring respiratory rate and effort at home? N, but taking notice more after sister's CHF. O thinks 20-30 at rest.

Cough? N

Shortness of breath or difficulty breathing? Sounds raspy when anxious.

Syncope or collapse? N

Sudden onset lameness? N

Exercise intolerance? N- Normally low energy.

Current Medications Pertinent to CV System:

B6

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:

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 - obese and difficult to palpate
- Fair
- Good
- Strong
- Bounding
- Pulse deficits
- Pulsus paradoxus
- Other:

Arrhythmia:

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

Gallop:

- Yes
- Pronounced

- No
- Intermittent

Other:

Pulmonary assessments:

- Eupneic
- Mild dyspnea
- Marked dyspnea
- Normal BV sounds
- Pulmonary crackles
- Wheezes
- Upper airway stridor

Abdominal exam:

- Normal
- Hepatomegaly
- Abdominal distension mostly adipose tissue?
- Mild ascites
- Marked ascites

Problems:

Related dog with DCM
Has a high NT-proBNP

Differential Diagnoses: DCM vs other

Diagnostic plan:

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

Echocardiogram Findings:

B6

Assessment and recommendations:

Findings are consistent with ARVC with concurrent LV dysfunction which is either related to ARVC or could have a component of diet-related cardiomyopathy. There was not enough arrhythmia seen today to clearly trigger antiarrhythmic therapy, but a 24 hour Holter monitor could be performed for a better assessment of arrhythmia burden, or Alivecor tracings could be evaluated serially. Recommend starting **B6** 5mg PO BID. Recommend switching the diet. Dog was enrolled in the DCM study, and troponin, NTproBNP, taurine levels, CBC/Chem were submitted via the study. Recheck echo, ECG, and blood work in

3, 6, and 9 months for the study. Discussed pros and cons of starting antiarrhythmic treatment today, or ACEi - owner leaning toward fewer drugs at this stage.

Final Diagnosis:

ARVC with LV dysfunction (possible component of diet associated cardiomyopathy)

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 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	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) !

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 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

B6

cm
 cm
 cm
 cm
 cm
 ml
 cm
 cm
 cm
 ml
 %
 %
 ml
 cm
 cm
 ml
 ml
 cm
 cm
 ml
 ml
 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

B6

m/s
 mmHg
 m/s
 ms
 m/s
 m/s
 m/s
 m/s
 m/s
 mmHg
 m/s
 mmHg
 m/s

TR maxPG

B6

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/>

B6

B6

Male (Neutered)

Canine English Bulldog

Brown/White

B6

2/12/2019

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,

John Rush DVM, DACVIM (Cardiology), DACVECC