

B6

INVOICE - 38420

Date: AUG 26 19

Time: 18:12

Account: 2748

Operator: B6

Page: 1

B6

Name: B6
Species: CANINE
Breed: ENGLISH BULLDOG

Birthdate: B6
Gender: FEMALE SPAYED
Weight: 45.2 lbs

Rabies Tag: B6 ID1: B6 ID2: B6

| Item | Description | Date | Pr | Qty | Units | Price | Total |
|-----------|-------------|------|----|------|-------|-------|-------|
| 02205 | AUTOPSY | B6 | E2 | 1.00 | EACH | B6 | B6 |
| Subtotal: | | | | | | | B6 |

B6

Name: B6
Species: CANINE
Breed: ENGLISH BULLDOG

Birthdate: B6
Gender: MALE NEUTERED
Weight: 47.63 lbs

Rabies Tag: B6 ID2: B6

| Item | Description | Date | Pr | Qty | Units | Price | Total |
|-----------|-------------|------|----|------|-------|-------|-------|
| 02205 | AUTOPSY | B6 | E2 | 1.00 | EACH | B6 | B6 |
| Subtotal: | | | | | | | B6 |

SUBTOTAL: B6

* TAX EXEMPT

TAX: 0.00

TOTAL THIS VISIT: B6

PAYMENTS:
TOTAL: 0.00
CHANGE: 0.00

TOTAL NOW DUE: B6

Like us on FACEBOOK for educational and entertaining content. Please visit our WEBSITE at B6 and check out our online store.

Check out our new online scheduling service at B6 Here you can set up an account, update personal information, print vaccine records and even schedule appointments all at your convenience. Thanks for trusting us to care for your pet!

From: Jones, Jennifer L </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0F6CA12EAA9348959A4CBB1E829AF244-JENNIFER.JO>
To: [REDACTED] B6
CC: 'Guag, Jake * (Jake.Guag@fda.hhs.gov)'; Peloquin, Sarah
Sent: 5/23/2019 4:34:17 PM
Subject: RE: Rapid necropsy for Vet-LIRN's Case Investigation into Canine Dilated Cardiomyopathy (DCM) 2018

Hi [REDACTED] B6

Thank you for the updates and collecting the samples. How large is the container and how much does it weigh? We will send you a box with a prepaid shipping label.

Thank you kindly,
Jen

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



From: [REDACTED] B6
Sent: Wednesday, May 22, 2019 11:31 AM
To: Guag, Jake <Jake.Guag@fda.hhs.gov>
Cc: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: RE: Rapid necropsy for Vet-LIRN's Case Investigation into Canine Dilated Cardiomyopathy (DCM) 2018

Hi Jake,

Yes, we can hold onto the samples until instructed otherwise.

Thank you,

[REDACTED] B6

From: Guag, Jake <Jake.Guag@fda.hhs.gov>
Sent: Wednesday, May 22, 2019 11:16 AM
To: [REDACTED] B6
Cc: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: RE: Rapid necropsy for Vet-LIRN's Case Investigation into Canine Dilated Cardiomyopathy (DCM) 2018

Dear [REDACTED] B6

Thank you for contacting us. Could you please hold the samples? Dr. Jones is a person in charge for the case and she is off today. She will contact you when she returns.

Thanks
Jake

From: [REDACTED] B6
Sent: Wednesday, May 22, 2019 10:47 AM
To: Guag, Jake <Jake.Guag@fda.hhs.gov>
Subject: Rapid necropsy for Vet-LIRN's Case Investigation into Canine Dilated Cardiomyopathy (DCM) 2018

Good morning,

I recently submitted a pet food report via the FDA Safety Reporting Portal on a deceased patient named [B6] [B6] was a 4yo CM Boxer with severe DCM who had been eating a grain-free dog food for the last two years. Dr. Lisa Freeman (PI for on-going DCM study here at Tufts) would like to submit collected samples (heart) to the FDA for further analysis. The sample was promptly placed in 10% NBF approximately 30 minutes post mortem on [B6]. Would it be possible to have boxes sent to us for sample submission?

Thank you,

[B6] CVT, RVTg
Department of Clinical Sciences
Cummings School of Veterinary Medicine at Tufts University
200 Westboro Road
North Grafton, MA 01536
Phone: [B6]
Fax: (508) 839-7922

From: Carey, Lauren </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=F0226BD682844FA2B71EA3750D4FCB82-LAUREN.CARE>
To: Jones, Jennifer L
Sent: 7/12/2018 12:00:21 PM
Subject: FW: Earthborn Coastal Catch dry: Lisa Freeman - EON-358519
Attachments: 2051555-report.pdf

"Missing" DCM report from the most recent group.

From: PFR Event [mailto:pfpreventcreation@fda.hhs.gov]
Sent: Monday, July 09, 2018 8:52 AM
To: Cleary, Michael * <Michael.Cleary@fda.hhs.gov>; HQ Pet Food Report Notification <HQPetFoodReportNotification@fda.hhs.gov>; B6
Subject: Earthborn Coastal Catch dry: Lisa Freeman - EON-358519

A PFR Report has been received and PFR Event [EON-358519] has been created in the EON System.

A "PDF" report by name "2051555-report.pdf" is attached to this email notification for your reference.

Below is the summary of the report:

EON Key: EON-358519

ICSR #: 2051555

EON Title: PFR Event created for Earthborn Coastal Catch dry; 2051555

| | | | |
|--------------------------|---|---------------------------|---------|
| AE Date | 06/20/2018 | Number Fed/Exposed | |
| Best By Date | | Number Reacted | 1 |
| Animal Species | Dog | Outcome to Date | Unknown |
| Breed | Boxer (German Boxer) | | |
| Age | B6 Years | | |
| District Involved | PFR-New England DO | | |

Product information

Individual Case Safety Report Number: 2051555

Product Group: Pet Food

Product Name: Earthborn Coastal Catch dry

Description: Diagnosed with LV cavity dilation and reduced contractile function

Submission Type: Initial

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

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

Number of Animals Reacted With Product: 1

| Product Name | Lot Number or ID | Best By Date |
|-----------------------------|-------------------------|---------------------|
| Earthborn Coastal Catch dry | | |

Sender information

Lisa Freeman
200 Westboro Rd
North Grafton, MA 01536
USA

Owner information

B6 USA

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

<https://eon.fda.gov/eon//browse/EON-358519>

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=375143>

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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.

B6

lab results 11/30/17-12/13/17

B6

Accession No B6
Received 11/30/2017
Reported 12/01/2017 02:34 AM

B6
B6
Doctor B6

CW/Ref
B6

Pst Name
B6

Species Breed Sex Ref Age Chart#
Canine Labrador Retriever CM 8Y N

| Suparchem | | | | Complete Blood Count | | | |
|----------------------|---------|------------|-------|----------------------|---------|---------------|---------------------|
| Tests | Results | Ref. Range | Units | Tests | Results | Ref. Range | Units |
| Total Protein | B6 | 3.0-7.4 | g/dL | WBC | B6 | 4.0-15.5 | 10 ³ /μL |
| Albumin | B6 | 2.7-4.4 | g/dL | RBC | B6 | 4.8-9.3 | 10 ⁶ /μL |
| Globulin | B6 | 1.6-3.6 | g/dL | Hemoglobin | B6 | 12.1-20.3 | g/dL |
| A/G Ratio | B6 | 2.8-2.0 | | Hematocrit | B6 | 36-60 | % |
| AST (SGOT) | B6 | 15-88 | IU/L | MCV | B6 | 58-79 | fL |
| ALT (SGPT) | B6 | 12-118 | IU/L | MCH | B6 | 19-28 | pg |
| Alk Phosphatase | B6 | 3-131 | IU/L | MCHC | B6 | 30-38 | g/dL |
| SGTP | B6 | 1-12 | IU/L | Platelet Count | B6 | 170-400 | 10 ³ /μL |
| Total Bilirubin | B6 | 0.1-0.3 | mg/dL | Platelet EST | B6 | | |
| Urea Nitrogen | B6 | 5-31 | mg/dL | Differential | B6 | | |
| Creatinine | B6 | 1.5-1.0 | mg/dL | Neutrophils | B6 | % | |
| BUN/Creatinine Ratio | B6 | 4-27 | | Sands | B6 | 73 2060-10900 | /μL |
| Phosphorus | B6 | 2.6-8.0 | mg/dL | Lymphocytes | B6 | 18 690-4500 | /μL |
| Glucose | B6 | 70-138 | mg/dL | Monocytes | B6 | 5 0-840 | /μL |
| Calcium | B6 | 3.9-11.4 | mg/dL | Eosinophils | B6 | 4 0-1200 | /μL |
| Corrected Calcium | B6 | | | Basophils | B6 | 0 0-150 | /μL |
| Vagresuria | B6 | 1.6-2.5 | mEq/L | | | | |
| Sodium | B6 | 139-154 | mEq/L | | | | |
| Potassium | B6 | 3.6-5.5 | mEq/L | | | | |
| Na/K Ratio | B6 | 27-38 | | | | | |
| Chloride | B6 | 102-120 | mEq/L | | | | |
| Cholesterol | B6 | 32-324 | mg/dL | | | | |
| Triglycerides | B6 | 26-291 | mg/dL | | | | |
| Amylase | B6 | 260-1125 | IU/L | | | | |
| PrecisionPSL™ | B6 | 24-140 | U/L | | | | |

Pancreatitis is unlikely, but a normal PrecisionPSL™ result does not completely exclude pancreatitis as a cause for gastrointestinal signs.
CPK B6 36-865 IU/L
Comment Hemolysis 1+ No significant interference.

| Test Requested | Results | Reference Range | Units |
|---|---------|-----------------|-------|
| TOTAL T4 | B6 | 0.8-3.5 | μg/dL |
| T4 | B6 | | |
| URINALYSIS-COMplete | B6 | | |
| Collection Method | B6 | | |
| Not Stated | B6 | | |
| Color | B6 | | |
| Appearance | B6 | | |
| Specific Gravity | B6 | 1.015-1.050 | |
| pH | B6 | 5.5-7.0 | |
| Protein | B6 | Negative | |
| Microalbuminuria testing is recommended if sediment is inactive to help determine the clinical significance of proteinuria. | B6 | | |
| Glucose | B6 | Negative | |
| Ketone | B6 | Negative | |
| Bilirubin | B6 | Neg To 1+ | |
| Blood | B6 | Negative | |
| WBC | B6 | 0-3 | HPF |
| RBC | B6 | 0-3 | HPF |
| Casts | B6 | Hyaline 0-3 | HPF |
| Crystals | B6 | | HPF |
| Bacteria | B6 | | HPF |
| Squamous Epithelia | B6 | None Seen | HPF |

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FINAL

B6

PAGE 02

B6

B6

02/09/2018 14:03

B6

lab results 11/30/17-12/13/17

B6

B6
B6

Doctor: B6

Accession No: B6
Received 12/13/2017
Reported 12/14/2017 12:01 AM

| Test Requested | Results | Reference Range | Units | |
|--|-----------|-----------------|-------|--|
| RENAL CHEMISTRY | | | | |
| Total Protein | B6 | 5.0-7.4 | g/dL | |
| Albumin | | 2.7-4.4 | g/dL | |
| Globulin | | 1.6-3.6 | g/dL | |
| A/G Ratio | | 0.8-2.0 | | |
| Urea Nitrogen | | 6-31 | mg/dL | |
| Creatinine | | 0.5-1.6 | mg/dL | |
| BUN/Creatinine Ratio | | 4-27 | | |
| Phosphorus | | 2.5-8.0 | mg/dL | |
| Calcium | | 8.9-11.4 | mg/dL | |
| Sodium | | 139-154 | mEq/L | |
| Potassium | | 3.6-5.5 | mEq/L | |
| Na/K Ratio | | 27-38 | | |
| Comment: | | | | |
| Hemolysis 2+, Lipemia 2+ No significant interferences. | | | | |

B6

B6

B6

Client Diet History Form

Submitted: 02/13/2018

PET INFORMATION

Pet Name B6
Pet Last Name
Pet Species/Breed Dog / Labrador Retriever
Pet's Color Black
Pet's Birthdate B6
Pet's Sex Male
Spayed or Neutered? Yes

CLIENT INFORMATION

Client Name
Client Address
Client Phone #s
Client Email
Co-Owner Name
Co-Owner Phone
Co-Owner Email

CONSULT INFORMATION

Type of Consult Phone
HCD Being Requested? Yes

Recently diagnosed with congestive heart failure. Taking B6

Reasons & Goals for Consult Follow up appointment with cardiologist on Feb 21. Would like dietary recommendations to manage heart disease.
Has also had a history of chronic, intermittent diarrhea. Concern about food allergies, absorption of nutrients and current medications, sodium intake. Would like dietary recommendations to mitigate diarrhea and improve gut health.

Attachments

PRIMARY VETERINARIAN INFORMATION

rDVM Name B6
rDVM Clinic
rDVM Phone
rDVM Fax
rDVM Email

Diet History Form

Diet History Form - updated

Agree to Terms

Date Submitted

02/13/2018

Information to Gather

About You, Your Veterinarian(s) and Your Pet

What type of appointment are you requesting?

Phone

Has your pet been seen at Tufts in the last 6 months?

Yes

About the Pet Owner

Pet owner name

B6

Pet owner email

show: B6

Address

B6

Preferred Phone

B6

Preferred Phone Type

Mobile

Alternate Phone

B6

Alternate Phone Type

Landline

Is there another phone number you would like to give us in case we can't reach you at one of the above?

No

Spouse/partner/co-owner's name

N/A -- husband deceased

Spouse/partner/co-owner's email

Spouse/partner/co-owner's phone

How did you hear about our service?

Diet History Form

- Recommended by your veterinarian

Your Pet's Primary Veterinarian

Primary veterinarian

B6

Primary veterinarian's clinic name

B6

Primary veterinarian's clinic phone

B6

Primary veterinarian's clinic fax

Primary veterinarian's clinic email

Is your pet currently being (or has your pet been) seen by any other veterinarians in relation to her/his current health issues or other health issues that you'd like to discuss with us?

No

About Your Pet

Pet's name

B6

What is your pet's species?

Dog

Breed

Labrador Retriever

Color

Black

Sex

Male

Spayed/neutered?

Yes

Do you know your pet's exact birthdate?

Yes

Pet's Birthdate

B6

What is your pet's current weight

100 lbs

Pounds or kilograms?

lbs

Has your pet gained or lost weight within the past 6 months?

Diet History Form

Stayed the same

Which category best describes your pet?

overweight

Reason and goals for consultation

Recently diagnosed with congestive heart failure. Taking 2000 mg taurine supplements/day +

B6

B6

Follow up appointment with cardiologist on Feb 21. Would like dietary recommendations to manage heart disease.

Has also had a history of chronic, intermittent diarrhea. Concern about food allergies, absorption of nutrients and current medications, sodium intake. Would like dietary recommendations to mitigate diarrhea and improve gut health.

Details About Your Pet's Habits

Questions about your pet

Is your pet housed:

- Indoors

Please describe your pet's activity level:

Moderate

Do you have any other pets?

Yes

What are your other pets?

| Species | How many? |
|---|-----------|
| Golden Retriever/German Shepherd/Chow Mix -- neutered male, 12yrs | 1 |
| Beagle/Rat Terrier Mix -- spayed female, 1.5 yrs | 1 |

Do any pets have access to other pets' food?

Yes

How many people (including yourself) live in your household?

2

Who feeds your pet?

I do

How many times per day do you feed your pet?

Twice

Does your pet finish all food that is offered?

Most of the time

Does your pet have any difficulty with the following?

Does your pet have any of the following?

- Diarrhea

Diet History Form

- Food allergies
- Environmental allergies

Please explain about your pet's conditions

Possible food or environmental allergies -- never tested, but suspicious of food allergies because of chronic intermittent diarrhea

Have you observed any changes in any of the following?

- Defecation
- Appetite

Please explain the changes you have observed

Currently having loose stools for past few months, intermittently. Treated with [B6] Dec 2017 and rice/beef diet -- some resolve, then appetite waned and no longer willing to eat rice/beef. Returned to kibbles with chicken, turkey, ham, cheese, vegetables (spinach, broccoli, peas) -- willing to eat, but appetite down from normal. Stools still not solid regularly.

Have you made any recent changes in diet (last 4 weeks)?

Yes

Please explain the changes in your pet's diet

Took off kibbles in Dec, restricted to basmati or brown rice and beef, spinach/broccoli diet -- diarrhea improved but not completely eliminated. Tolerated for 3-4 weeks, but waned in interest in eating. Reintroduced kibbles (Canidae duck and bison recipes) and readded rice, chicken, cold cuts -- ham, turkey, roast beef, and vegetables. Appetite improved, but still not normal -- no real desire to eat, approached bowl cautiously, while historically [B6] was an ambitious eater.

He has consistently enjoyed treats despite lack of appetite for meals -- primarily True Chews: Premium Grillers, Premium Chicken Jerky, and Milo's Kitchen: Steak Grillers, Chicken Jerky; Old Mother Hubbard: P-nutter and assorted biscuits.

Not sure how much underlying heart disease is causing appetite loss, vs food allergies/GI issues.

Your Pet's Diet

Do you feed your pet DRY (e.g., kibble) pet food?

Yes

Please list each kind of DRY petfood individually

| Brand or name | Amount per serving | How often given? | Fed since (mo/yr)? |
|---|--------------------|------------------|--|
| Canidae LID grain free (duck/bison/wild boar) | 1 cup | 2x's daily | ~ 3-5 yrs |
| Merrick LID grain free (chx w/sweet pot; buffalo w/sweet pot; duck w/sweet pot) | 1 cup | 2x's daily | ~ past year (when not feeding Canidae) |

Do you feed your pet WET (e.g., canned or pouched) pet food?

Yes

Please list each kind of WET (e.g., canned or pouched) petfood individually

Diet History Form

Is your pet receiving any medications?

Yes

Please list your pet's medications

| Drug Name | Dosage |
|-----------|--------|
|-----------|--------|

| | |
|-----------|--|
| B6 | |
|-----------|--|

Do you use food (e.g., Pill Pockets, cheese, bread, peanut butter, etc.) to administer medications?

Yes

Lists foods used to administer medication

| What kind? | Amount? | How often? |
|------------|---------|------------|
|------------|---------|------------|

| | | |
|-------------------------|--|----------------------------|
| Greenies Pill Pockets 8 | | 4 AM/4PM = 8 total per day |
|-------------------------|--|----------------------------|

Regarding commercial diets (pet foods and treats not made in your home) your pet may have received in the past, please select the following statement that is most accurate:

I have fed my pet other commercial diets in the past.

Please list all other commercial diets you are not currently feeding but have fed to your pet in the past.

| Food | Approximate Dates | Reason for discontinuing |
|--|--------------------|--|
| California Natural (salmon, brown rice/chx, venison) | 2009-2011 | moved from B6 not available locally |
| Holistic Select Grain Free (salmon, duck) | 2011-2013 (approx) | change to vary diet – no medical reason |

Home-cooked Diets

Is a home-cooked diet being requested? (Please note that this option is only available for phone or in-person consults, not for consults directly with veterinarians.)

Yes

Does your pet have kidney disease?

No

Protein Sources

- Chicken
- Tilapia
- Ground beef
- Egg
- Other

What is your pet's other protein source? (Some ingredients may incur additional fees)

turkey

What is your pet's preferred protein?

lately seems to NOT like beef; prefers chicken, turkey, eggs

Diet History Form

Carbohydrate Sources

- Barley
- Oats
- Potato
- Pasta
- Rice
- Sweet potato
- Other

What other carbohydrate source will your pet eat? (Some ingredients may incur additional fees)

rice (sometimes), pasta, sweet potato (sometimes)—have never tried barley, oats

What is your pet's preferred carbohydrate?

probably pasta, bread (loves pizza crust!)

Medical Records & Test Results

Requested Items

- Complete blood count, biochemistry profile and urinalysis
- Additional relevant diagnostics (e.g., urine culture, T4, ultrasound reports)
- Last 6 months' medical records or as appropriate (all consults)

Do you have any of the above in electronic format?

These should all be accessible at Tufts; recent treatment there, and fax

Would you like to upload and attach anything else to this form?

Clinical Nutrition Service

Foster Hospital for Small Animals
200 Westboro Road
North Grafton, MA 01536
Phone: (508) 887-4696 Attn: Nutrition Liaison
Fax: 508-887-4363
www.petfoodology.org
vetnutrition@tufts.edu



Nutrition Consultation

Appointment Date: 2/22/18

Pet Name: B6

Signalment: B6, year old neutered male, Labrador Retriever

Weight: 102.7 pounds (46.7 kg)

Body condition score: 7/9

Muscle condition score: Mild muscle loss

Relevant health conditions: Dilated cardiomyopathy, congestive heart failure, chronic intermittent diarrhea

Medications: B6

Referring veterinarian: B6

Diet History:

- Current diet: Canidae LID Grain Free (duck/bison/wild boar) dry food or Merrick LID Grain Free (chicken, buffalo, or duck) dry food, Merrick Grain Free wet food
- Treats/human foods: Rice, pasta, various meats, various vegetables, eggs, cheese, table food, True Chew Premium Grillers & Premium chicken jerky treats, Milos Kitchen Steak Grillers, & chicken jerky treats, Old Mother Hubbard biscuits various flavors, bully sticks, various other biscuits
- Supplements: Well and Good Salmon Oil (2-2.5 tsp/day), VetriScience Vetri Mega probiotic, taurine (1000 mg twice daily)
- Medication administration: 8 capsule-sized Pill Pockets/day

Nutritional Goals

- Complete and balanced diet
- Adequate calorie intake to maintain body weight between 95-100 pounds (although this is overweight, we don't want to have him lose weight for risk of losing muscle)
- Consistent diet to reduce risk for diarrhea
- Reduced sodium from all sources (diet, treats, table food)
- Moderate protein
- Easily digestible, avoid high fat
- Supplements: Taurine, omega-3 fatty acids, L-carnitine, co-enzyme Q10

Recommendations:

- I'm happy that we were able to talk about B6's diet to ensure he's getting optimal nutrition. Nutrition is an integral part of the treatment for a dog with heart disease. This is especially important for B6 because there is some chance of taurine deficiency playing a role in his disease. Either way, the combination of medications, diet, and dietary supplements should be helpful for his heart.
- As we discussed, there's a lot of misinformation about pet foods so I'll only be recommending diets that meet all the criteria for being of the highest quality and I feel 100% confident about the nutritional levels and quality: <http://vetnutrition.tufts.edu/2016/12/questions-you-should-be-asking-about-your-pets-food/>
- My estimate of B6's daily calorie needs at his lower activity level is approximately 1300 calories per day. This is an initial estimate to keep his weight between 95-100 pounds. However, since every dog is an individual, I'd like you to weigh him in 2 weeks to be sure he's maintaining his weight. If he's losing weight, you should increase the amount of food and continue to weigh him, and if he's gaining weight, you should reduce the amount of food and continue to weigh him. Let me know if you need help adjusting amounts.
 - If his heart disease is taurine dependent and his condition improves, it would be ideal for him to eventually get down to a healthier weight.
- The 3 diets I'm recommending are listed below. I've listed only dry foods for now. As we discussed, we can always introduce canned food or a home-cooked diet at a later date, if needed. The starting point for

cups/day to feed initially is below but please note that this may need to be adjusted to maintain his goal weight of 95-100 pounds. The total daily amount should be divided into 2 meals, as you've been doing:

| | Calories/cup | Cups/day |
|---|--------------|----------|
| Purina DRM Naturals (dry)* | 418 | 3 |
| Royal Canin Mobility Support JS (dry)* | 324 | 3 ½ |
| Nutro Ultra Adult Weight Management (dry) | 341 | 3 ½ |

*Diets with an asterisk are ones that must be purchased from [B6] or, if not available, from an online pet food store (eg, Chewy.com) with a prescription or approval. The Nutro diet is available over-the-counter.

- I would make the diet change first before adding any additional supplements so that we're only making 1 change at a time. Introduce the new diet gradually over 5-7 days to avoid gastrointestinal upset, since Riley seems to have a somewhat sensitive gastrointestinal tract.
- The Purina and Royal Canin diets have enough fish oil in them that you don't need to add any additional fish oil to his diet. If you select the Nutro diet, you should supplement that with fish oil (see below).

Supplements:

- Unfortunately, there is little regulation of supplements for people or animals (safety, effectiveness, and quality control do not have to be proven for them to be sold), and some of these products may be harmful rather than helpful. Therefore, I am very selective when it comes to recommending specific supplements that have undergone independent quality control testing. Looking for the USP logo or using Consumerlab.com is very helpful for finding products with independent testing of quality.
- While we're starting a new diet, continue the taurine and probiotic (you can introduce the new brand of taurine below when you're out of the current taurine from Tufts). Once he's transitioned over to the new diet, you can start introducing the other supplements – 1 at a time. I would go in this order: L-carnitine, fish oil, then co-enzyme Q10. Allow about 1 week between each new supplement to be sure he's tolerating it.
- Taurine and L-carnitine: Because of our concern for taurine deficiency and the potential for some benefit from L-carnitine supplementation in addition to taurine, I think it makes sense to give him both taurine and L-carnitine. Brands with good quality control are below.
 - Taurine: Solgar, Twinlab, Swanson, and GNC brands. The one we talked about and is easy to find is: Twinlab Mega Taurine 1000 mg capsules. You can open the capsule and add the powder to his diet, mix it in a little yogurt or applesauce (see below), or give the capsule in part of a Pill Pocket. You should continue to give him **1000 mg twice daily**.
 - L-carnitine: Solgar, Country Life, or Jarrow brands. His dose would be **2000 mg twice daily**.
 - We have some additional information on these supplements on our HeartSmart website: <http://vet.tufts.edu/heartsmart/diet/important-nutrients-for-pets-with-heart-disease/>
- Omega-3 fatty acids: Fish oil, which is high in the omega-3 fatty acids, EPA and DHA, can have modest benefits in reducing inflammation, maintaining muscle mass, reducing abnormal heart rhythms, and improving appetite. The Purina and Royal Canin diets above contain sufficient omega-3 fatty acids but if you decide to give him the Nutro diet, I recommend providing additional fish oil. Fish oil brands with independent testing re on our HeartSmart website: <http://vet.tufts.edu/wp-content/uploads/omega-3-supplementation.pdf>. Since you prefer the liquid, a good option is the Welactin Canine Liquid. His dose would be get **2 scoops per day** of this product.
- Co-enzyme Q10. This is the lowest priority of the supplements but has been shown in people with DCM (not dogs) to have some benefits. His dose would be **100 mg twice daily**. Options for brands with independent testing of quality are: Spring Valley (Walmart) CoQ10 100 mg, GNC CoQ-10 100 mg, or CVS Health CoQ-10 100 mg.
- Probiotic. Continue the VetriScience probiotic for now. If he's doing ok with his diarrhea, we can consider discontinuing this supplement in the future. If we find he continues to have diarrhea episodes, we may want to try a different brand of probiotic.
- If giving this many supplement pills becomes burdensome to you or to [B6] please let me know. It can be a lot between all the medications and supplements! The heart medications are the most important for him so if we need to adjust some of the supplements, we can definitely do that.

Treats:

- I recommend discontinuing all of the current treats, bully sticks, and jerky treats. I'm concerned about their

sodium content, but also health risks from the bully sticks and jerky treats. Some good treat options that meet our nutritional goals are listed below. Our goal is to limit his calories from treats and human foods to about 150 calories/day so that we're sure he's getting enough of the nutritionally balanced dog food.

| | |
|---|-------------|
| Hill's Ideal Balance Regional Delights with Pacific Style Salmon & Sweet Potato treat | 30 calories |
| Hill's Science Diet Soft Savories Beef & Cheddar or Chicken & Yogurt treat | 25 calories |
| Hill's Ideal Balance Oven-Baked Naturals with Chicken & Apples treat | 24 calories |
| Hill's Ideal Balance Soft-Baked Naturals with Chicken & Carrots, Duck & Pumpkin, or Beef & Sweet Potato treat | 12 calories |
| Hill's Science Diet Grain Free treat with Chicken & Apples Treat | 9 calories |
| Royal Canin Veterinary Diets Original Dog Treats (can be ordered on Amazon) | 5 calories |

- Human foods: You can continue to mix in cooked meat, rice, vegetables, or eggs with [B6]'s meals. Please avoid cheese, deli meats, rotisserie chicken, packaged rice or vegetables with seasoning or sauces, and other high sodium foods. Our goal is to limit his calories from dog treats and human foods to about 150 calories/day so we're sure he's getting enough of the nutritionally balanced dog food. To give you an idea of calories in some of the foods you've been feeding, I'm providing approximate calories below:
 - Chicken breast, cooked (1/4 cup): 60 calories
 - White rice, cooked (1/4 cup): 60 calories
 - Pasta, cooked (1/4 cup): 60 calories
 - Egg, cooked (1 large): 95 calories
 - Sweet potato, baked (1/2 medium): 50 calories
- You can feed as many non-starchy vegetables as you'd like (e.g., carrots, green beans, cucumbers, tomatoes, broccoli, green peppers, etc). Avoid macadamia nuts, avocado, garlic, onions, grapes, raisins, and other foods known to be toxic to dogs.
- Store-bought chicken broth. Low sodium broths are still too high in sodium for [B6] (or, if they're low enough, they contain onion which can be toxic to dogs). I recommend cooking the chicken or other meat in the microwave or stewing in a crock pot with water or fresh or canned tomatoes (if you use canned tomatoes, be sure they say "no salt added").
- To give [B6] something to chew and to keep him mentally stimulated, you can put some of his daily allotment of dry food into a Kong toy (<https://www.kongcompany.com/products/for-dogs/rubber-toys/classic-rubber-toys/classic/>) that is frozen with a little water mixed in, and or feed his meals from a puzzle feeder (many different options available on Amazon).

Medication Administration

- Dog tablet sized Greenies Pill Pockets are relatively low in sodium (just be sure to avoid Duck and Pea flavor which is high in sodium) but try to limit the total to 4/day. You can also use the dog tablet-sized Pill Pockets or the cat Pill Pockets if those are easier (or less expensive).
- In addition to Pill Pockets, you can also insert medications into one of the following foods:
 - Low-sodium canned pet food (I can give you some specific foods if you want to try this option)
 - Mini marshmallows
 - Fruit such as melon or berries (avoid grapes)
 - Peanut butter (labeled as "no salt added")
 - Yogurt. Look for yogurts that do not have artificial sweeteners and contain less than 60 mg sodium per serving. A good brand is Chobani blended yogurts (avoid flavors with chocolate)

Follow Up:

- Please weight [B6] in 2 weeks to be sure he's maintaining his weight within our goal range of 95-100 pounds. This will help us determine if we need to adjust his food at all.
- Monitor his stool. I'm attaching a fecal chart so you can keep track of his fecal score as we change diet and gradually add supplements. I'm hoping that a more consistent and easily digestible diet, as well as discontinuing the bully sticks and jerky treats will help with his chronic, intermittent diarrhea.
- Please let me know how things go at [B6]'s recheck cardiology evaluation in May. Hopefully, there will be an improvement in his heart function!

In the meantime, please contact me if you have any questions about **B6**'s nutritional plan.

Sincerely,

Lisa M. Freeman, DVM, PhD, DACVN
Professor, Clinical Nutrition
508-887-4696 (telephone)
vetnutrition@tufts.edu (email)
www.petfoodology.org

B6 --resting breath rate and Lasix -- acute distress 3.1.18 following B6 conference travel 3.1

| Date | Time | BPM | B6 (mg) | Total Daily Dosage | Notes |
|--------------------------|---------|-----|---------|--------------------|-------|
| 3.1.18 | 7am | | | | |
| (Thursday) -- travel day | 7pm | | | | |
| | 10pm | | | | |
| 3.2.18 | 6:30am | | | | |
| (Friday) | 8:30am | | | | |
| | 11:30am | | | | |
| | 2:30pm | | | | |
| | 4:30pm | | | | |
| | 7:30pm | | | | |
| | 9:30pm | | | | |
| 3.3.18 | 7:30am | | | | |
| (Saturday) | 9:15am | | | | |
| | 10:30am | | | | |
| | 12:45pm | | | | |
| | 3:30pm | | | | |
| | 7:00pm | | | | |
| | 10:00pm | | | | |
| 3.4.18 | 7:30am | | | | |
| (Sunday) | 10:30am | | | | |
| | 12:00pm | | | | |
| | 6:00pm | | | | |
| | 7:30pm | | | | |
| | 10:00pm | | | | |
| 3.5.18 | 7:00am | | | | |
| (Monday) | 9:00am | | | | |
| | 10:30am | | | | |
| | 4:00pm | | | | |
| | 8:00pm | | | | |
| | 10:00pm | | | | |
| 3.6.18 | 7:00am | | | | |
| (Tuesday) | 9:45am | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

B6

On the evening of 3.4 (Sunday), I felt a protruding object along B6's gumline when petting the outside of his muzzle. Upon inspection, I discovered a significant # of splinters embedded between his two back molars and up into the gums on both sides of his mouth. They looked incredibly sore, gums were bleeding and irritated. Much wood was visible lodged into the upper gums and protruding onto the teeth. I was able to remove all of the visible debris from both sides using tweezers, floss, and a dental water pik, flushed with saline solution, but am unsure about what debris may remain beneath the gumline, near tooth roots and/or have migrated.

[B6] seemed much relieved and his appetite immediately improved, with a willingness to eat kibbles and home cooked soft foods since this time.

His general demeanor seems calmer and happier. I am left wondering if the bilateral eye discharge I have been seeing over the past weeks, as well as a reduction in appetite is in part due to these foreign objects as well as heart disease, and am suspicious about the impact of these foreign bodies on his overall breathing/sinus sounds and ability to move air through his nasal passages.

I also am very concerned about my ability to keep these areas clean and free of debris. It seems that without dental extraction, these will prove to be continual food and debris traps, and [B6] (obsessively ☺) chews on sticks every day he is on a walk--- it is impossible to keep him from doing so. It seems he has periodontal disease in this region, and I do not know whether debris has migrated into the sinus cavities or elsewhere. I can water pik the areas in the shorter term, which will help to flush debris out following walks and meals, but I am concerned that this may only irritate the gums further, prove difficult to sustain over time, and perhaps not address an underlying dental or sinus problem.

I realize his heart health is of primary concern and you are uncertain he can withstand anesthesia in his current state. I would like to discuss what options we might together explore to address

[B6] dental health issues, as I am concerned about the possible contribution of bacteria to his heart disease. If not the causative agent, I would like to try and eliminate any additional burden on his heart.

If we are able to radiograph his neck/mouth/sinuses without sedating him, I would be happy to help you restrain him. I have done many radiographs on dogs in my past as a vet tech, and would really like to try and get a better picture of what is going on in this region.

At your earliest convenience, if you could give me a call to discuss, I would be most grateful. Thank you very kindly for helping me do all I can to try and help [B6]

Very kindly, [B6]



This email has been checked for viruses by Avast antivirus software.

www.avast.com

B6

labs 3/8/18-CBC/Chem

03/08/2018 11:33

B6

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OF 1

B6

B6

B6

Doctor B6

Accession No. B6

Received 03/07/2018

Reported 03/08/2018 12:08 AM

Owner Pat Name

B6

Species

Canine

Breed

Labrador Retriever

Sex

CM

Pet Age

8Y

Chart#

N

Superchem

| Tests | Results | Ref. Range | Units |
|----------------------|---------|------------|-------|
| Total Protein | | 5.0-7.4 | g/dL |
| Albumin | | 2.7-4.4 | g/dL |
| Globulin | | 1.6-3.8 | g/dL |
| A/G Ratio | | 2.8-2.0 | |
| AST (SGOT) | | 15-55 | IU/L |
| ALT (SGPT) | | 12-118 | IU/L |
| Alk Phosphatase | | 3-131 | IU/L |
| GGT | | 1-12 | IU/L |
| Result Verified | | | |
| Total Bilirubin | | 2.1-0.3 | mg/dL |
| Urea Nitrogen | | 3-31 | mg/dL |
| Creatinine | B6 | 0.6-1.6 | mg/dL |
| BUN/Creatinine Ratio | | 4-27 | |
| Phosphorus | | 2.5-8.0 | mg/dL |
| Glucose | | 70-138 | mg/dL |
| Calcium | | 9.8-11.4 | mg/dL |
| Magnesium | | 1.6-2.3 | mEq/L |
| Sodium | | 135-154 | mEq/L |
| Potassium | | 3.6-5.3 | mEq/L |
| Na/K Ratio | | 27-36 | |
| Chloride | | 102-120 | mEq/L |
| Cholesterol | | 52-324 | mg/dL |
| Triglycerides | | 29-291 | mg/dL |
| Amylase | | 150-1125 | IU/L |
| PancreaticPSL | | 24-140 | IU/L |

Pancreatitis is unlikely, but a normal PancreaticPSL result does not completely exclude pancreatitis as a cause for gastrointestinal signs.

CPK

Comment

Hemolysis 4% Lipemia 1+ No significant interference.

Complete Blood Count

| Tests | Results | Ref. Range | Units |
|----------------|---------|------------|---------------------|
| WBC | | 4.0-15.5 | 10 ⁹ /uL |
| RBC | | 4.8-9.3 | 10 ⁶ /uL |
| Hemoglobin | | 12.1-20.3 | g/dL |
| Hematocrit | | 36-60 | % |
| MCV | | 58-78 | fL |
| MCH | | 19-29 | pg |
| MCHC | | 30-38 | g/dL |
| Platelet Count | | 170-400 | 10 ⁹ /uL |
| Platelet EST | | | |
| Differential | | | |
| Neutrophils | | 75 | 2050-10600 |
| Bands | | 0 | |
| Lymphocytes | | 18 | 850-4500 |
| Monocytes | | 5 | 0-840 |
| Eosinophils | | 4 | 0-1200 |
| Basophils | | 0 | 0-150 |

B6

B6

B6

abs 3/8/18-CBC/Chem

03/08/2018 11:33

B6

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OF 1

B6

B6

B6

Doctor B6

Accession No. B6
Received 03/07/2018
Reported 03/08/2018 12:05 AM

Owner B6

Pet Name B6

Species Canine

Breed Labrador Retriever

Sex CM

Pet Age 8Y

Chart# N

| Supernorm | | | | Complete Blood Count | | | | |
|----------------------|-----------|------------|----------|----------------------|-------------|--------------|---------------------|-----|
| Tests | Results | Ref. Range | Units | Tests | Results | Ref. Range | Units | |
| Total Protein | B6 | 5.0-7.4 | g/dL | WBC | B6 | 4.0-15.5 | 10 ³ /μL | |
| Albumin | | 2.7-4.4 | g/dL | RBC | | 4.8-9.3 | 10 ⁶ /μL | |
| Globulin | | 1.6-3.8 | g/dL | Hemoglobin | | 12.1-20.3 | g/dL | |
| Alb Ratio | | 0.8-2.0 | | Hematocrit | | 36-60 | % | |
| AST (SGOT) | | 15-55 | U/L | MCV | | 58-79 | fL | |
| ALT (SGPT) | | 12-118 | U/L | MCH | | 18-26 | pg | |
| Alk Phosphatase | | 3-131 | U/L | MCHC | | 30-38 | g/dL | |
| GGT | | 1-12 | U/L | Platelet Count | | 170-400 | 10 ³ /μL | |
| Result Verified | | | | Platelet EST | | | | |
| Total Bilirubin | | | 2.1-0.3 | mg/dL | | Differential | | % |
| Urea Nitrogen | | | 5-31 | mg/dL | Neutrophils | 75 | 2060-10600 | /μL |
| Creatinine | | | 0.5-1.6 | mg/dL | Bands | 0 | | |
| BUN/Creatinine Ratio | | | 4-27 | | Lymphocytes | 18 | 690-4500 | /μL |
| Phosphorus | | | 2.5-8.0 | mg/dL | Monocytes | 5 | 0-840 | /μL |
| Glucose | | | 70-138 | mg/dL | Eosinophils | 4 | 0-1200 | /μL |
| Calcium | | | 9.9-11.4 | mg/dL | Basophils | 0 | 0-150 | /μL |
| Magnesium | | | 1.5-2.5 | mEq/L | | | | |
| Sodium | | | 135-154 | mEq/L | | | | |
| Potassium | | | 3.0-5.5 | mEq/L | | | | |
| Na/K Ratio | | | 27-36 | | | | | |
| Chloride | | 100-120 | mEq/L | | | | | |
| Cholesterol | | 22-324 | mg/dL | | | | | |
| Triglycerides | | 28-281 | mg/dL | | | | | |
| Amylase | | 350-1105 | U/L | | | | | |
| Precision PSL™ | | 24-140 | U/L | | | | | |
| CPK | | 18-895 | U/L | | | | | |

Pancreatitis is unlikely, but a normal Precision PSL™ result does not completely exclude pancreatitis as a cause for gastro-intestinal signs.

Comment: Hemolysis 4+, Lipemia 1+ No significant interference.

B6

TECH results 4/6/18

04/06/2018 15:29

B6

PAGE 1 OF 1 01

B6

B6

Accession No. B6
Received 04/06/2018
Reported 04/06/2018 02:45 AM

Doctor: B6

| Owner | Pet Name | Species | Breed | Sex | Pet Age | Chart# | |
|------------------------|-----------|---|--------------------|-----|---------|--------|--|
| B6 | | Canine | Labrador Retriever | CM | 8y | N | |
| Test Requested | Results | Reference Range | Units | | | | |
| RENAL CHEMISTRY | | | | | | | |
| Total Protein | B6 | 5.0-7.4 | g/dL | | | | |
| Albumin | | 2.7-4.4 | g/dL | | | | |
| Globulin | | 1.6-3.6 | g/dL | | | | |
| A/G Ratio | | 0.8-2.0 | | | | | |
| Urea Nitrogen | | 6-31 | mg/dL | | | | |
| Creatinine | | 0.5-1.6 | mg/dL | | | | |
| BUN/Creatinine Ratio | | 4-27 | | | | | |
| Phosphorus | | 2.5-8.0 | mg/dL | | | | |
| Calcium | | 8.9-11.4 | mg/dL | | | | |
| Sodium | | 130-154 | mEq/L | | | | |
| Potassium | | 3.6-5.5 | mEq/L | | | | |
| Na/K Ratio | | 27-38 | | | | | |
| Comment | | Hemolysis 1+, Lipemia 2+ No significant interference. | | | | | |

TO :

RE :

B6

B6

05/08/2018 15:52

B6

PAGE 01

B6

B6
B6

Accession No. **B6**
Received 05/07/2018
Reported 06/08/2018 02:15 AM

Doctor: **B6**

| Owner | Pet Name | Species | Breed | Sex | Pet Age | Chart# |
|--------------------------------|---|-----------------|--------------------|-----|---------|--------|
| B6 | | Canine | Labrador Retriever | CM | BY | N |
| Test Requested | Results | Reference Range | Units | | | |
| CHEMISTRY RENAL PROFILE | | | | | | |
| Total Protein | B6 | 5.0-7.4 | g/dL | | | |
| Albumin | B6 | 2.7-4.4 | g/dL | | | |
| Globulin | B6 | 1.6-3.0 | g/dL | | | |
| A/G Ratio | B6 | 0.8-2.0 | | | | |
| Urea Nitrogen | B6 | 6-31 | mg/dL | | | |
| Creatinine | B6 | 0.5-1.6 | mg/dL | | | |
| BUN/Creatinine Ratio | B6 | 4-27 | | | | |
| Phosphorus | B6 | 2.5-8.0 | mg/dL | | | |
| Calcium | B6 | 8.9-11.4 | mg/dL | | | |
| Sodium | B6 | 132-164 | mEq/L | | | |
| Potassium | B6 | 3.6-5.5 | mEq/L | | | |
| Na/K Ratio | B6 | 27-35 | | | | |
| Comment: | Hemolysis 3+, Lipemia 2+ No significant interference. | | | | | |

B6

From: PFR Event <pfpreventcreation@fda.hhs.gov>
To: Cleary, Michael *; HQ Pet Food Report Notification; [B6]
Sent: 1/14/2019 10:08:36 PM
Subject: Taste of the Wild Sierra Mountain dry: Lisa Freeman - EON-376361
Attachments: 2061171-report.pdf; 2061171-attachments.zip

A PFR Report has been received and PFR Event [EON-376361] has been created in the EON System.

A "PDF" report by name "2061171-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 "2061171-attachments.zip" and is attached to this email notification.

Below is the summary of the report:

EON Key: EON-376361
ICSR #: 2061171
EON Title: PFR Event created for Taste of the Wild Sierra Mountain dry; 2061171

| | | | |
|--------------------------|--------------------|---------------------------|--------|
| AE Date | 01/02/2019 | Number Fed/Exposed | 7 |
| Best By Date | | Number Reacted | 1 |
| Animal Species | Dog | Outcome to Date | Stable |
| Breed | Retriever - Golden | | |
| Age | 3 Years | | |
| District Involved | PFR-New England DO | | |

Product information

Individual Case Safety Report Number: 2061171

Product Group: Pet Food

Product Name: Taste of the Wild Sierra Mountain dry

Description: Eating Taste of the Wild Sierra Mountain since June 2018 (Acana Heritage Poultry before that). This diet was fed to multiple dogs - have not screened other dogs yet so unknown whether they are also affected. Echo showed reduced contractility and mild left atrial enlargement. BNP and troponin mildly elevated, troponin [B6] Taurine WNL ([B6]) Changing to Pro Plan Sensitive Skin/Stomach dry and will recheck in 3 months

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: 7

Number of Animals Reacted With Product: 1

| Product Name | Lot Number or ID | Best By Date |
|---------------------------------------|------------------|--------------|
| Taste of the Wild Sierra Mountain dry | | |

Sender information

Lisa Freeman
200 Westboro Rd
North Grafton, MA 01536
USA

Owner information

B6
USA

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

<https://eon.fda.gov/eon//browse/EON-376361>

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=393370>

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

From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
To: Peloquin, Sarah
CC: Jones, Jennifer L
Sent: 4/25/2019 5:41:30 PM
Subject: RE: FDA Case Follow-up for EON-380848 / EON-385681

Hi Sarah

Unfortunately, we didn't actually find out until after the fact so we didn't get a necropsy.

We're going to start informing owners when they enroll in the study that we'd like to get a necropsy so they're prepared for this in the future

Sorry

Lisa

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

From: Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Sent: Thursday, April 25, 2019 1:37 PM
To: Freeman, Lisa <Lisa.Freeman@tufts.edu>
Cc: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: FDA Case Follow-up for EON-380848 / EON-385681

Good afternoon Dr. Freeman,

I hope you are well. Was a necropsy performed on [B6] (boxer, EON-380848/385681) after he passed away at home on [B6] Or, do you know if his body has already been buried/cremated?

Thank you,
Sarah

Sarah K. Peloquin, DVM
Veterinary Medical Officer

U.S. Food & Drug Administration
Center for Veterinary Medicine
Veterinary Laboratory Investigation and Response Network
tel: 240-402-1218
fax: 301-210-4685
e-mail: sarah.peloquin@fda.hhs.gov



From: Peloquin, Sarah </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8607f880df2b494aa639e6d9a3874132-Sarah.Peloq>
To: Rotstein, David; Carey, Lauren; Ceric, Olgica; Glover, Mark; Jones, Jennifer L; Nemser, Sarah; Palmer, Lee Anne; Queen, Jackie L
Sent: 4/25/2019 5:43:08 PM
Subject: RE: Wellness Complete Health Fish and Sweet Potato dry: Lisa Freeman - EON-385681

FYI, no necropsy was performed on this one per Dr. Freeman.

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

From: Rotstein, David
Sent: Monday, April 22, 2019 11:12 AM
To: Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>
Subject: FW: Wellness Complete Health Fish and Sweet Potato dry: Lisa Freeman - EON-385681

Forwarding this on because the dog died on **B6** and unsure of necropsy status

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



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From: Related PFR Event <pfrsignificantactivitycreation@fda.hhs.gov>
Sent: Monday, April 22, 2019 11:09 AM
To: Rotstein, David <David.Rotstein@fda.hhs.gov>; Cleary, Michael * <Michael.Cleary@fda.hhs.gov>; HQ Pet Food Report Notification <HQPetFoodReportNotification@fda.hhs.gov>; **B6**
Subject: Wellness Complete Health Fish and Sweet Potato dry: Lisa Freeman - EON-385681

A PFR Report has been received and Related PFR Event [EON-385681] has been created in the EON System.

A "PDF" report by name "2066093-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 "2066093-attachments.zip" and is attached to this email notification.

Below is the summary of the report:

EON Key: EON-385681

ICSR #: 2066093

EON Title: Related PFR Event created for Wellness Complete Health Fish and Sweet Potato dry; 2066093

| | | | |
|-------------------|----------------------|--------------------|------------|
| AE Date | 02/22/2019 | Number Fed/Exposed | 2 |
| Best By Date | | Number Reacted | 1 |
| Animal Species | Dog | Outcome to Date | Died Other |
| Breed | Boxer (German Boxer) | | |
| Age | B6 years | | |
| District Involved | PFR-New England DO | | |

Product information

Individual Case Safety Report Number: 2066093

Product Group: Pet Food

Product Name: Wellness Complete Health Fish and Sweet Potato dry

Description: Arrhythmia dx at RDVM July 2018 (had been "wheezing") Started wheezing again 1 week before admission. Diagnosed with DCM, CHF, and ventricular tachycardia 2/22/19 Was fed Wellness diet until 6/2018 then changed to Royal Canin Boxer (current diet). Taurine and troponin pending. Owner has another Boxer eating same diets - has not been screened Enrolled in DCM study. Changing to different diet (although Boxer diet is probably fine) and will recheck in 7 days and 3 months. Patient passed away at home **B6**

Submission Type: Followup

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

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

Number of Animals Treated With Product: 2

Number of Animals Reacted With Product: 1

| Product Name | Lot Number or ID | Best By Date |
|--|------------------|--------------|
| Wellness Complete Health Fish and Sweet Potato dry | | |

This report is linked to:

Initial EON Event Key: EON-380848

Initial ICSR: 2063189

Sender information

Lisa Freeman
200 Westboro Rd
North Grafton, MA 01536
USA

Owner information

B6 USA

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

<https://eon.fda.gov/eon//browse/EON-385681>

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

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jspa?decorator=none&e=0&issueType=10100&issuelid=402809&parentIssueTypeId=12>

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From: Peloquin, Sarah </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8607F880DF2B494AA639E6D9A3874132-SARAH.PELOQ>
To: Freeman, Lisa
CC: Jones, Jennifer L
Sent: 4/25/2019 5:42:41 PM
Subject: RE: FDA Case Follow-up for EON-380848 / EON-385681

No problem, just wanted to double check.

Thank you!
Sarah

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

From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
Sent: Thursday, April 25, 2019 1:42 PM
To: Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Cc: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: RE: FDA Case Follow-up for EON-380848 / EON-385681

Hi Sarah
Unfortunately, we didn't actually find out until after the fact so we didn't get a necropsy.
We're going to start informing owners when they enroll in the study that we'd like to get a necropsy so they're prepared for this in the future
Sorry
Lisa

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

From: Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Sent: Thursday, April 25, 2019 1:37 PM
To: Freeman, Lisa <Lisa.Freeman@tufts.edu>
Cc: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: FDA Case Follow-up for EON-380848 / EON-385681

Good afternoon Dr. Freeman,

I hope you are well. Was a necropsy performed on [B6] (boxer, EON-380848/385681) after he passed away at home on [B6]? Or, do you know if his body has already been buried/cremated?

Thank you,
Sarah

Sarah K. Peloquin, DVM
Veterinary Medical Officer

U.S. Food & Drug Administration
Center for Veterinary Medicine
Veterinary Laboratory Investigation and Response Network
tel: 240-402-1218
fax: 301-210-4685
e-mail: sarah.peloquin@fda.hhs.gov





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.

- Normal whole blood taurine: >250nmol/mL
- Normal plasma taurine: >70nmol/mL
- Marginal whole blood taurine: 200-250nmol/mL
- Marginal plasma taurine: 60-70nmol/mL
- Low whole Blood taurine: <200nmol/mL
- Low plasma taurine: <60nmol/mL

References:

- Kramer GA, Kittleson MD, Fox PR, Lewis J, Pion PD. Plasma taurine concentrations with normal dogs and in dogs with heart disease. *J Vet Intern Med* 1995;9:253-258.
- Belanger MC, Ouellet M, Queney G, Moreau M. Taurine-deficient dilated cardiomyopathy in a family of golden retrievers. *J Am Anim Hosp Assoc* 2005;41:284-291.
- Kittleson MD, Keene B, Pion PD, Loyer CG, MUST Study Investigators. Results of the multicenter spaniel trial (MUST): taurine- and carnitine-responsive dilated cardiomyopathy in American Cocker Spaniels with decreased plasma taurine concentration. *J Vet Intern Med* 1197;11:204-211.
- Backus RC, Choen G, Pion PD, Good KL, Rogers QR, Fascetti AJ. Taurine deficiency in Newfoundlands fed commercially available complete and balanced diets. *J Am Vet Med Assoc* 2003;223:1130-1136.
- Fascetti AJ, Reed JR, Rogers QR, Backus RC. Taurine deficiency in dogs with dilated cardiomyopathy: 12 cases (1997-2001). *J Am Vet Med Assoc* 2003;223:1137-1141.
- Freeman LM, Michel KE, Brown DJ, Kaplan PM, Stamoulis ME, Rosenthal SL, Keene BW, Rush JE. Idiopathic dilated cardiomyopathy in Dalmatians: nine cases (1990-1995). *J Am Vet Med Assoc* 1996;209:1592-1596.
- Delaney SJ, Kass PH, Rogers QR, Fascetti AJ. Plasma and whole blood taurine in normal dogs of varying size fed commercially prepared food. *J Anim Physiol a Anim Nutr* 2003;87:236-244.

Plasma vs. whole blood taurine testing:

If at all possible, we recommend that paired (plasma and whole blood) taurine samples be submitted for analysis. A low value on either or both tests is clinically relevant. If your dog is diagnosed with DCM, submitting paired taurine samples (plasma and whole blood) is imperative. We recommend that the UC Davis Amino Acid Laboratory be used for taurine testing, as this is where the literature utilized for our reference ranges was generated. <https://www.vetmed.ucdavis.edu/labs/amino-acid-laboratory>. If a single test is submitted the Stern Lab recommends that whole blood be submitted preferentially. This is due to the false elevation of taurine levels that is possible in plasma samples due to sample handling issues. This is an area of some debate between clinicians and conflicting information on preference for plasma vs. whole blood exists. This underscores the value of paired sampling.

Clinical Recommendations for Golden Retrievers based on taurine levels:

If taurine levels test <200nmol/mL in whole blood or <60nmol/mL in plasma

- An echocardiogram by a board-certified veterinary cardiologist is indicated
- After echocardiogram has been completed, a diet change is recommended.
 - If DCM is diagnosed, this patient may need a variety of cardiac medications that would be prescribed by the attending cardiologist.
 - If DCM is diagnosed, prescribed supplementation with oral taurine and l-carnitine is recommended.
 - Reevaluation of taurine levels is warranted after three months of diet change and supplementation.
 - Cardiology reevaluation schedules will be recommended by the attending clinician pending echocardiographic findings.
 - Many Golden Retrievers with taurine-deficient DCM in our study showed slow and steady improvement over a period of 6-12 months.

If taurine levels test 200 – 250nmol/mL in whole blood or 60-70nmol/mL in plasma

- An echocardiogram by a board-certified cardiologist is recommended.
- After echocardiogram has been completed, a diet change is recommended.
- We recognize that many dogs in this category may have normal echocardiograms and thus the value of screening should be carefully considered. If the dog is eating a diet that falls within the FDA warning or shares features with the diets identified in our study (see diets of concern section below), we encourage echocardiographic screening with greater enthusiasm.
- If an echocardiogram is not performed, a diet change is still recommended and a taurine level reevaluation after three months on the new diet should be considered.
- If DCM is diagnosed, this patient may need a variety of cardiac medications that would be prescribed by the attending cardiologist.
 - 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

Page 3 of 3

27799

PL
WF **B6**

B6
B6 Canine
12:38 PM
TAURINE PANEL
Lithium Heparin

Amino Acid Laboratory Sample Submission Form

Amino Acid Laboratory, 1089 Veterinary Medicine Drive, Davis, Ca 95616

Telephone: 530-752-5058, Fax: 530-752-4698

Email: ucd.aminoacid.lab@ucdavis.edu

www.vetmed.ucdavis.edu/labs/amino-acid-laboratory

Veterinarian Contact: **B6**

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

Address: 200 Westboro Road, North Grafton MA 015369

Email: Clinpath@tufts.edu **cardiovet@tufts.edu**

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

Billing Contact: **B6** Email: **B6**

Billing Contact Phone: **B6** Tax ID: _____

Patient Name: **B6** Species: CWINS

Breed: Boxer Owner's Name: **B6**

Current Diet: Rc Boxer

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.

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.

NC State College of Veterinary Medicine

Veterinary Cardiac Genetics Laboratory

1060 William Moore Dr., RB 326
Raleigh, NC 27607
vcgl@lists.ncsu.edu
(919) 513-3314



To request swab collection kits, please visit:
<https://cvm.ncsu.edu/genetics/cheek-swab-request/>

Boxer Arrhythmogenic Right Ventricular Cardiomyopathy (ARVC) Testing

Arrhythmogenic right ventricular cardiomyopathy (ARVC) is a fairly common form of heart disease in the boxer dog. It is inherited and our laboratory has identified a mutation responsible for the gene in some boxers. However, it should be noted that in human beings with the same disease, there are many different genetic mutations which can cause this disease. We do not yet know if this is the only mutation in the boxer or if there will be many different mutations. Please keep in mind that we are continually learning about this disease and recommendations will be altered as we obtain more information.

Owner Name:

Boxer ARVC Result: **Negative**

Dog's Name:

ID #:

Below is an explanation for each possible test result so you can better understand all the possible results and make informed breeding decisions:

| | |
|----------------------------------|---|
| Negative: | Negative dogs have two copies of the normal, unmutated gene. The absence of the mutation in a dog does not mean that it will never develop the disease. It means that it does not have the only known mutation that can cause ARVC in Boxers at this time. |
| Positive Heterozygous: | Positive Heterozygous dogs have 1 copy of the mutated gene and 1 copy of a normal gene. Dogs that are positive heterozygous should be carefully evaluated for signs of disease (Holter monitor and possibly an echocardiogram). If an arrhythmia is detected, possible treatment options should be discussed with your veterinarian. |
| Breeding recommendations: | Adult dogs that do not show signs of disease and that have other positive attributes could be bred to mutation negative dogs. Puppies may be screened for the mutation and over a few generations, mutation negative puppies may be selected to replace the mutation positive parent and gradually decrease the number of mutation positive dogs in the population. |
| Positive Homozygous: | Positive Homozygous dogs have 2 copies of the mutated gene. Dogs that are homozygous for the mutation appear to have more significant disease. |
| Breeding recommendations: | We recommend not breeding the homozygous dogs. Dogs that test positive homozygous will certainly pass on the mutation to their offspring. |



As always, breeding decisions should be made carefully. Removal of a significant number of dogs from the breeding population could be very bad for the Boxer breed. Remember that dogs that carry this mutation may also carry other important good genes that we do not want to lose from the breed.



From: Related PFR Event <pfrsignificantactivitycreation@fda.hhs.gov>
To: Carey, Lauren; Cleary, Michael *; HQ Pet Food Report Notification;
B6
Sent: 3/20/2019 9:44:47 PM
Subject: CANIDAE- ALL LIFE STAGES-CHICKEN MEAL & RICE FORMULA--DRY
DOG FOOD: Lisa Freeman - EON-382884
Attachments: 2064340-report.pdf; 2064340-attachments.zip

A PFR Report has been received and Related PFR Event [EON-382884] has been created in the EON System.

A "PDF" report by name "2064340-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 "2064340-attachments.zip" and is attached to this email notification.

Below is the summary of the report:

EON Key: EON-382884

ICSR #: 2064340

EON Title: Related PFR Event created for CANIDAE® ALL LIFE STAGES CHICKEN MEAL & RICE FORMULA DRY DOG FOOD; 2064340

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

Product information

Individual Case Safety Report Number: 2064340

Product Group: Pet Food

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

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

Submission Type: Followup

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

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

Number of Animals Treated With Product: 3

Number of Animals Reacted With Product: 1

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

This report is linked to:

Initial EON Event Key: EON-381040

Initial ICSR: 2063286

Sender information

Lisa Freeman
200 Westboro Rd
North Grafton, MA 01536
USA

Owner information

B6 USA

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

<https://eon.fda.gov/eon//browse/EON-382884>

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

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jsps?decorator=none&e=0&issueType=10100&issueId=399982&parentIssueTypeId=12>

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Client: B6
Patient: B6
Species: CANINE
Breed: DOBERMAN_PINSCH
Gender: MALE
Age: 3Y

Date: B6
Requisition #: 1A
Accession #: B6
Ordered by: B6

IDEXX VetConnect 1-888-433-9967
TUFTS UNIVERSITY
200 WESTBORO RD
NORTH GRAFTON, Massachusetts 01536
508-839-5395
Account #88933

CARDIOPET proBNP - CANINE

| Test | Result | Reference Range | Low | Normal | High |
|---------------------------|--------|-----------------|------|--------|------|
| CARDIOPET proBNP - CANINE | B6 | 0 - 900 pmol/L | HIGH | | B6 |

Comments

B6

Please note: Complete interpretive comments for all concentrations of Cardiopet proBNP are available in the online directory of services. Serum specimens received at room temperature may have decreased NT-proBNP concentrations.

From: Related PFR Event <pfrsignificantactivitycreation@fda.hhs.gov>
To: Carey, Lauren; Cleary, Michael *; HQ Pet Food Report Notification;
B6
Sent: 3/20/2019 9:20:46 PM
Subject: CANIDAE- ALL LIFE STAGES-CHICKEN MEAL & RICE FORMULA--DRY
DOG FOOD: Lisa Freeman - EON-382878
Attachments: 2064335-report.pdf; 2064335-attachments.zip

A PFR Report has been received and Related PFR Event [EON-382878] has been created in the EON System.

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Below is the summary of the report:

EON Key: EON-382878

ICSR #: 2064335

EON Title: Related PFR Event created for CANIDAE® ALL LIFE STAGES CHICKEN MEAL & RICE FORMULA DRY DOG FOOD; 2064335

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

Product information

Individual Case Safety Report Number: 2064335

Product Group: Pet Food

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

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

Submission Type: Followup

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

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

Number of Animals Treated With Product: 3

Number of Animals Reacted With Product: 1

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

This report is linked to:

Initial EON Event Key: EON-381040

Initial ICSR: 2063286

Sender information

Lisa Freeman
200 Westboro Rd
North Grafton, MA 01536
USA

Owner information

B6 USA

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

<https://eon.fda.gov/eon//browse/EON-382878>

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

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CARDIOLOGY DIET HISTORY FORM

Please answer the following questions about your pet

Pet's name: **B6** Owner's name: **B6** Today's date: **B6**

1. How would you assess your pet's appetite? (mark the point on the line below that best represents your pet's appetite)

Example: **Poor** _____ | _____ **Excellent**
Poor _____ | _____ **Excellent**

2. Have you noticed a change in your pet's appetite over the last 1-2 weeks? (check all that apply)

- Eats about the same amount as usual
- Eats less than usual
- Eats more than usual
- Seems to prefer different foods than usual
- Other _____

3. Over the last few weeks, has your pet (check one)

- Lost weight
- Gained weight
- Stayed about the same weight
- Don't know

1. Please list below ALL pet foods, people food, treats, snack, dental chews, rawhides, and any other food item that your pet currently eats and that you have fed in the last 2 years.

Please provide enough detail that we could go to the store and buy the exact same food - examples are shown in the table

| Food (include specific product and flavor) | Form | Amount | How often? | Dates fed |
|--|------------|--------------|------------|-------------------|
| Nutro Grain Free Chicken, Lentil, & Sweet Potato Adult | dry | 1 1/2 cup | 2x/day | Jan 2016-present |
| 85% lean hamburger | microwaved | 3 oz | 1x/week | June-Aug 2016 |
| Pupperoni original beef flavor | treat | 1/2 | 1x/day | Sept 2016-present |
| Rawhide | treat | 6 inch twist | 1x/week | Dec 2018-present |
| Canidae All Life Stages - Multi-Protein Formula | dry | 2-2.5 cups | 2x/day | 2015-present |
| Canidae Grain Free PUPP | wet | 2-3 tbsp | 1-2x/day | 2016-present |
| MITE Bone Soft+Chewy - Beef + Filet Mignon | treat | 1 | 1x/day | 2015-present |
| RTCo Treat bar | treat | 1-2 | 1x/day | 2015-present |
| Charlee Bear - Turkey liver + cranberries | treat | 2-3 | 1-2x/day | 2017-present |
| Table scraps | | | 1x/day | 2015-present |
| | | | | |
| | | | | |
| | | | | |

*Any additional diet information can be listed on the back of this sheet

2. Do you give any dietary supplements to your pet (for example: vitamins, glucosamine, fatty acids, or any other supplements)? Yes No If yes, please list which ones and give brands and amounts:

| | Brand/Concentration | Amount per day |
|--|---|----------------------------|
| Taurine | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | _____ |
| Carnitine | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | _____ |
| Antioxidants | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | _____ |
| Multivitamin | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | _____ |
| Fish oil | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | _____ |
| Coenzyme Q10 | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | _____ |
| Other (please list): Example: Vitamin C | Nature's Bounty | 500 mg tablets - 1 per day |
| | _____ | _____ |
| | _____ | _____ |
| | _____ | _____ |

3. How do you administer pills to your pet?

- I do not give any medications
- I put them directly in my pet's mouth without food
- I put them in my pet's dog/cat food
- I put them in a Pill Pocket or similar product
- I put them in foods (list foods): cheese, different meats

* Canidae Grain Free Pure: it comes in different flavors

- "Sea": Salmon + Mackerel
- "Elements": Lamb, turkey, and chicken
- "Foundations": chicken
- "Sky": Duck + turkey
- "Land": Lamb

Amount: about a spoon full or two on top of his dry food

* We have always fed **B6** table scraps from dinner, putting about a tablespoon on top of his dry food. This includes different meats: chicken, steak, lamb, etc. The dogs usually had some of whatever we had for dinner.

CARDIOLOGY DIET HISTORY FORM
Please answer the following questions about your pet

Pet's name: **B6** Owner's name: **B6** Today's date: **B6**

1. How would you assess your pet's appetite? (mark the point on the line below that best represents your pet's appetite)



2. Have you noticed a change in your pet's appetite over the last 1-2 weeks? (check all that apply)

- Eats about the same amount as usual Eats less than usual Eats more than usual
 Seems to prefer different foods than usual Other _____

3. Over the last few weeks, has your pet (check one)
 Lost weight Gained weight Stayed about the same weight Don't know

4. Please list below ALL pet foods, people food, treats, snack, dental chews, rawhides, and any other food item that your pet currently eats. Please include the brand, specific product, and flavor so we know exactly what you pet is eating.

Examples are shown in the table -- please provide enough detail that we could go to the store and buy the exact same food.

| Food (include specific product and flavor) | Form | Amount | How often? | Fed since |
|--|------------|--------------|------------|-----------|
| Nutro Grain Free Chicken, Lentil, & Sweet Potato Adult | dry | 1 1/2 cup | 2x/day | Jan 2018 |
| 85% lean hamburger | microwaved | 3 oz | 1x/week | Jan 2015 |
| Pepperoni original beef flavor | treat | 1/4 | 1x/day | Aug 2015 |
| Rawhide | treat | 6 inch twist | 1x/week | Dec 2015 |
| Canidae All Stages of Life | dry | 2-2 1/2 cups | 2x/day | 2015 |
| Wolina sensitive skin + stomach - Salmon | dry | 2 cups | 2x/day | Feb. 2019 |
| Milk bone Chewy | treat | 1 | 1x/day | 2015 |
| Charlee Bear - Turkey liver + cranberry | Treat | GRAND 2 | 4-6x/day | 2015 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

*Any additional diet information can be listed on the back of this sheet

5. Do you give any dietary supplements to your pet (for example: vitamins, glucosamine, fatty acids, or any other supplements)? Yes No If yes, please list which ones and give brands and amounts:

| | Brand/Concentration | Amount per day |
|----------------------|---|----------------------------|
| Taurine | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No _____ | 2 twice a day |
| Carnitine | <input type="checkbox"/> Yes <input type="checkbox"/> No _____ | _____ |
| Antioxidants | <input type="checkbox"/> Yes <input type="checkbox"/> No _____ | _____ |
| Multivitamin | <input type="checkbox"/> Yes <input type="checkbox"/> No _____ | _____ |
| Fish oil | <input type="checkbox"/> Yes <input type="checkbox"/> No _____ | _____ |
| Coenzyme Q10 | <input type="checkbox"/> Yes <input type="checkbox"/> No _____ | _____ |
| Other (please list): | | |
| Example: Vitamin C | Nature's Bounty | 500 mg tablets - 1 per day |
| | | |
| | | |
| | | |

6. How do you administer pills to your pet?
 I do not give any medications
 I put them directly in my pet's mouth without food
 I put them in my pet's dog/cat food
 I put them in a Pill Pocket or similar product
 I put them in foods (list foods): _____

27857 PL ①
WB ②

B6

Amino Acid Laboratory Sample Submission Form

Amino Acid Laboratory, 1089 Veterinary Medicine Drive, Davis, Ca 95616

Telephone: 530-752-5058, Fax: 530-752-4698

Email: ucd.aminoacid.lab@ucdavis.edu

www.vetmed.ucdavis.edu/labs/amino-acid-laboratory

Veterinarian Contact: B6

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

Address: 200 Westboro Road, North Grafton, MA 015369

Email: Clinpath@tufts.edu 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: Doberman Owner's Name: B6

Current Diet: CANIDAE

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.



Gastrointestinal Laboratory
Dr. J.M. Steiner
Department of Small Animal Clinical Sciences
Texas A&M University
4474 TAMU
College Station, TX 77843-4474



Website User ID: clinpath@tufts.edu

GI Lab Assigned Clinic ID: 11405

B6
Tufts University-Clinical Pathology Lab
Attn: **B6**
200 Westboro Road
North Grafton, MA 01536
USA

Phone: 508 887 4669
Fax: 9 508 839 7936
Animal Name:
Owner Name: **B6**
Species: Canine
Date Received: Mar 06, 2019

Tufts University-Clinical Pathology Lab
Tracking Number:

GI Lab Accession: **B6**

| Test | Result | Reference Interval | Assay Date |
|------------------------------------|-----------|--------------------|------------|
| Ultra-Sensitive Troponin I Fasting | B6 | ≤0.06 | 03/06/19 |

B6

Comments:

GI Lab Contact Information

Phone: (979) 862-2861
Fax: (979) 862-2864

Email: gilab@cvm.tamu.edu
vetmed.tamu.edu/gilab

From: PFR Event <pfpreventcreation@fda.hhs.gov>
To: Cleary, Michael *; HQ Pet Food Report Notification; B6
Sent: 3/19/2019 8:56:56 PM
Subject: Natural Balance LID High Protein Grain-free Lamb or Beef flavors: Lisa Freeman - EON-382772
Attachments: 2064292-report.pdf; 2064292-attachments.zip

A PFR Report has been received and PFR Event [EON-382772] has been created in the EON System.

A "PDF" report by name "2064292-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 "2064292-attachments.zip" and is attached to this email notification.

Below is the summary of the report:

EON Key: EON-382772

ICSR #: 2064292

EON Title: PFR Event created for Natural Balance LID High Protein Grain-free Lamb or Beef flavors; 2064292

| | | | |
|--------------------------|--------------------|---------------------------|--------|
| AE Date | 03/17/2019 | Number Fed/Exposed | 1 |
| Best By Date | | Number Reacted | 1 |
| Animal Species | Dog | Outcome to Date | Stable |
| Breed | Mixed (Dog) | | |
| Age | 9 Years | | |
| District Involved | PFR-New England DO | | |

Product information

Individual Case Safety Report Number: 2064292

Product Group: Pet Food

Product Name: Natural Balance LID High Protein Grain-free Lamb or Beef flavors

Description: DCM and CHF diagnosed 3/17/19 Eating BEG diet Owners have given permission to report and are willing to answer questions Changing to new diet and will recheck in 3 months Taurine and troponin pending

Submission Type: Initial

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

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

Number of Animals Treated With Product: 1

Number of Animals Reacted With Product: 1

| Product Name | Lot Number or ID | Best By Date |
|--|-------------------------|---------------------|
| Natural Balance LID High Protein Grain-free Lamb or Beef flavors | | |

Sender information

Lisa Freeman
200 Westboro Rd
North Grafton, MA 01536
USA

Owner information



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

<https://eon.fda.gov/eon//browse/EON-382772>

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

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jspa?decorator=none&e=0&issueType=12&issueId=399870>

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From: PFR Event <pfpreventcreation@fda.hhs.gov>
To: Cleary, Michael *; HQ Pet Food Report Notification; usha.gulati@doveltech.com
Sent: 3/25/2019 7:57:07 PM
Subject: Iams Proactive Health - Chicken Senior Plus Dry Dog Food [B6]
EON-383307
Attachments: 2064533-report.pdf; 2064533-attachments.zip

A PFR Report has been received and PFR Event [EON-383307] has been created in the EON System.

A "PDF" report by name "2064533-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 "2064533-attachments.zip" and is attached to this email notification.

Below is the summary of the report:

EON Key: EON-383307

ICSR #: 2064533

EON Title: PFR Event created for Iams Proactive Health - Chicken Senior Plus Dry Dog Food; 2064533

| | | | |
|--------------------------|----------------------|---------------------------|--------|
| AE Date | 03/04/2019 | Number Fed/Exposed | 1 |
| Best By Date | | Number Reacted | 1 |
| Animal Species | Dog | Outcome to Date | Stable |
| Breed | Retriever - Labrador | | |
| Age | [B6] Years | | |
| District Involved | PFR-New England DO | | |

Product information

Individual Case Safety Report Number: 2064533

Product Group: Pet Food

Product Name: Iams Proactive Health - Chicken Senior Plus Dry Dog Food

Description: Presented to Tufts for further evaluation of her increased respiration rate and worsening cough. Patient was diagnosed with pulmonary edema secondary to DCM and DMVD. Patient's diet consisted of Iams senior (most recent x 1 year) and previously alternated between Iams chunks and mature adult large breed, 5+ years

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 |
|--|------------------|--------------|
| Iams Proactive Health - Chicken Senior Plus Dry Dog Food | | |

Sender information

B6

USA

Owner information

B6

USA

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

<https://eon.fda.gov/eon//browse/EON-383307>

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

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jspa?decorator=none&e=0&issueType=12&issueId=400405>

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CARDIOLOGY DIET HISTORY FORM

Please answer the following questions about your pet

Pet's name: **B6** Owner's name: **B6** Today's date: **3/22/19**

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

Was only poor when she was so sick.

Poor _____ | _____ Excellent

Used to be on Iams dry dog food.

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 _____

I regulate her food.

3. Over the last few weeks, has your pet (check one)

Lost weight Gained weight Stayed about the same weight Don't know

I think she lost fluid. (CHF)

4. Please list below ALL pet foods, people food, treats, snack, dental chews, rawhides, and any other food item that your pet currently eats. Please include the brand, specific product, and flavor so we know exactly what you pet is eating.

Examples are shown in the table – please provide enough detail that we could go to the store and buy the exact same food.

| Food (include specific product and flavor) | Form | Amount | How often? | Fed since |
|--|--------------|----------------|------------------|----------------------|
| Nutro Grain Free Chicken, Lentil, & Sweet Potato Adult | dry | 1 1/2 cup | 2x/day | Jan 2018 |
| 85% lean hamburger | microwaved | 3 oz | 1x/week | Jan 2015 |
| Pupperoni original beef flavor | treat | 1/2 | 1x/day | Aug 2015 |
| Rawhide | treat | 6 inch twist | 1x/week | Dec 2015 |
| Royal Canin Early Canine Dog Food | dry | ~1.5 cup | 2x/day | transitional to it |
| sweet potato | baked | ~ couple bites | every few days | sporadic |
| Sardines in water, No Salt added. | Canned | ~ 3 sardines | ~ 1-2 x/week | occasional |
| Freeze dried liver (100% beef liver) | Freeze-dried | few pieces | 2-4x/week | (more regularly now) |
| carrots | raw | few | NOT often enough | |
| Milk bones | | ~ 3/day | | way back |
| Bully sticks (beef) | | 1 stick | 1, 2 per week | p few months |

starting 3/9/19

*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 | "now" Taurine, 500mg - prescribed here 3/9/19 | 2, 2x/day. |
| Carnitine | | |
| Antioxidants | | |
| Multivitamin | | |
| Fish oil | | |
| Coenzyme Q10 | | |

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): _____

1 AM'S SEPTOR UNTIL LAST YEAR, ALTERNATE BETWEEN 1 YR AGO 1 AM'S CRUNKS OR MATURE ADULT LG BREEDS +

Client: **B6**
Patient:

Doctor: **B6**

Student:

Presenting complaint: coughing

Referral visit? Yes **B6**

Diagnostics completed prior to visit - Chest X-rays

HISTORY:

Signalment: 13 YO FS Lab

Current history: Diagnosed with lar par a couple of years ago. Was normal and active a couple of days ago. Started with a cough/gasp/hacking a couple of weeks ago and spitting up a clear liquid. Owners went away for a week and came home and it had gotten much worse. Coughing up white fluid and thinks it's coming from her lungs. Not eating well today but normally wants to eat everything. Wouldn't eat chicken today. Owner thinks she is suffering and want to know if we think there is anything else that can be done.

Prior medical history: **B6**

Current medications: **B6**

Diet: lams dry + other things (eggs, peanut butter)

Vaccination status/flea & tick preventative use: UTD, F/t/HW

Travel history: Not recently

EXAM:

B6

B6

Hydration:

B6

C/V: Grade I-II/VI murmur (squeak) heard on both sides, FPSS, NSR

RESP: Increased bronchovesicular sounds bilaterally, mildly increased respiratory effort, honking cough during exam

B6

ASSESSMENT:

A1: Coughing r/o laryngeal paralysis vs. CHF vs. pneumonia vs. kennel cough vs. metastatic neoplasia

PLAN:

B6

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

B6

Diagnostics completed:

Chest X-rays **B6**
TFAST **B6**
NOVA **B6**
PCV/T **B6**
4DX **B6**

Diagnostics pending:

CBC/Chem

Client communication:

B6 about what can cause her difficulty breathing such as pneumonia, heart failure, pulmonary fibrosis. Owner didn't think there was anything we could do for her but talked about other diagnostics such as bloodwork, X-rays, cardiology consult, CT scans. Owner is very attached to **B6** and doesn't want to keep her in hospital longer than necessary but would like us to do everything we can to help her. Would like to talk to the new doctor before a CT scan is considered. Asked if it is safe to do anesthesia in her and mentioned that we have wonderful anesthesiologist who do difficult procedures every day.

Deposit & estimate status: **B6**

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

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

SOAP Text **B6** 8:12AM - **B6**

INPATIENT VISIT SUMMARY:

Day 1 hospitalization for chronic productive cough. **B6**'s an approximately **B6**'S Labrador who has had signs of coughing starting a few weeks ago and has progressively worsened. For the few days prior to presentation, owners noted significant increase in severity and producing fluid/sputum frequently.

B6

Was seen at rDVM on 3/4/19 for her progressive productive cough and on exam had significant stridor. CXR were taken and reportedly showed a diffuse interstitial pattern thought to potentially be due to pneumonia or non-cardiogenic pulmonary edema from upper airway obstruction. Was treated with **B6**

B6 Started **B6** Given her progression since then, she was presented to the ER. Owners also report lack of appetite on day of presentation but no other systemic signs of illness. Eats lams dry food (non-grain free) with occasional eggs, pumpkin, or peanut butter **B6**

B6

Client:
Patient:

B6

On presentation to ER was QAR with stable vitals. A heart murmur was appreciated with increased BV sounds and a honking cough. Point of care labwork was unremarkable. Chest x-rays show cardiomegaly with mildly increased interstitial lung pattern diffusely (but seems worse caudally). **B6** was admitted to the hospital for further work-up, with considerations including aspiration pneumonia, congestive heart failure, or primary pulmonary disease. Managed with IVF and Unasyn overnight and has been reportedly eupneic but is frequently panting.

EXAM:

B6

Hydration:

B6

B6

C/V: tachycardic with normal rhythm, Grade II/VI HM with PMI left apex, hyperdynamic pulse quality
RESP: tachypneic, increased effort; bilateral soft inspiratory crackles, occasional productive cough with suspect pulmonary edema in run; upon exertion occasionally has loud stridor noted that self-resolves

B6

DIAGNOSTIC TESTING:

B6

B6

Client:
Patient:

B6

B6

- Cardiology consult: Markedly dilated hypocontractile LV. Respiratory artifact present. LA is moderate to markedly dilated. MV is thickened. RH is mildly dilated. PA is the same size as the aorta. No masses or dirofilaria visible. No pleural or pericardial effusion. Moderate MR and trace TR. Interpretation of findings is consistent with either DCM or mitral valve degeneration with secondary LV dilation.

PROBLEM LIST:

- Cardiomegaly, suspect pulmonary edema, hypoxemia
- Productive cough
- Suspect laryngeal paresis/paralysis
- Inappetance

ASSESSMENT:

After reviewing initial and subsequent CXR, suspect clinical signs due to CHF, potentially DCM. Plan for echocardiogram today and if consistent, continue management of pulmonary edema under care of cardiology service.

PLAN:

Diagnostics: echocardiogram

Pending: NT-proBNP

Treatments:

B6

B6

ADDENDUM:

SWO ~10am and explained top considerations given CXR are for CHF vs. less likely pneumonia or other etiology. Given this will go forward with cardiology consult/echo.

SWO again ~12pm and explained that cardio has confirmed that **B6** has significant cardiac chamber dilation and artifacts consistent with severe pulmonary edema. Explained DCM top consideration but need to give time to stabilize to get full echo images. Briefly discussed heart disease/CHF in general in dogs, treatments and what they address (diuretics, pimobendan), and short-term goal of improving pulmonary edema to the point of resolution of respiratory distress, long-term management with medications under care of cardiologist. explained that all we can do is mitigate clinical signs, rather than cure the underlying condition. Owner on board with all of this, called again ~330pm to confirm findings on repeat echo. Cardio to resume case management tomorrow morning and will call with update mid-morning (10a-12p).

B6

ID

SOAP Text **B6** 7:25AM - Clinician, Unassigned FHSA

History:

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

B6 is a 13 y/o SF Labrador presenting to Tufts cardiology service for management of congestive heart failure. She presented to the ER yesterday, **B6** in the early morning for increased respiratory rate and effort, worsening of a chronic productive cough, and 1 day history inappetance.

She has a history of laryngeal paralysis, arthritis, and urinary incontinence currently being treated with **B6** at home. She has previously been on **B6**

Subjective:

B6

Objective:

B6

Heart: Grade II/VI left sided systolic murmur, normal sinus rhythm, femoral pulses fair and synchronized with heart beats.

Lungs: Increased BV sounds bilaterally, mildly increased effort, no crackles or wheeze appreciated. Stridor, referred upper airway noise. Dry, non-productive cough elicited when excited.

B6

Diagnostics:

B6

- CXR: 1. Caudodorsal patchy interstitial pattern may reflect noncardiogenic pulmonary edema, in light of history of laryngeal paralysis; however given concurrent cardiomegaly and possible scant pleural effusion, the possibility of cardiogenic edema from decompensated heart failure is also considered. Echocardiography should be considered. Follow-up radiographs are recommended. 2. Tracheal narrowing at thoracic inlet may be consistent with dynamic airway disease. Fluoroscopy or tracheoscopy could be considered for further evaluation. 3. Moderate bilateral elbow, and mild bilateral shoulder, degenerative joint disease.

B6

B6

Client: **B6**
Patient:

B6

- CXR: 1. Progressive pulmonary infiltrates and unchanged cardiomegaly may again be compatible with decompensated congestive heart failure. Progressive noncardiogenic edema cannot be ruled out if the patient is experiencing ongoing upper airway obstruction, however echocardiography is strongly recommended prior to continuing IV fluid therapy and prednisone. Follow-up radiographs are recommended. 3. Persistent dynamic tracheal narrowing at thoracic inlet may again be consisted with dynamic airway disease. 4. **B6**

B6

- NT-proBNP: Pending
- Cardiology consult: Markedly dilated hypocontractile LV. Respiratory artifact present. LA is moderate to markedly dilated. MV is thickened. RH is mildly dilated. PA is the same size as the aorta. No masses or dirofilaria visible. No pleural or pericardial effusion. Moderate MR and trace TR. Interpretation of findings is consistent with either DCM or mitral valve degeneration with secondary LV dilation.

B6

Assessments

A1: Eccentric cardiomyopathy with left sided CHF - r/o DCM vs DVMD
A2: Chronic progressive cough - r/o chronic bronchitis vs CHF vs non-cardiogenic edema secondary to upper airway obstruction

Plan

B6

SOAP completed by: **B6**
SOAP reviewed by: **B6**

SOAP Text: **B6** 8:09AM - Clinician, Unassigned FHSA

History:

B6 is a 13 y/o SF Labrador on day 3 of hospitalization for management of congestive heart failure. She presented to the ER (**B6**) in the early morning for increased respiratory rate and effort, worsening of a chronic productive cough, and 1 day history inappetance.

She has a history of **B6** currently being treated with **B6** at home.
She has previously been on **B6**

Subjective:

B6

Client: **B6**
Patient:

Objective:

B6

Heart: Grade II/VI left sided systolic murmur, normal sinus rhythm, femoral pulses fair and synchronized with heart beats.

Lungs: Increased BV sounds bilaterally, mildly increased effort, no crackles or wheeze appreciated. Stridor, referred upper airway noise. Dry, non-productive cough elicited when excited.

B6

Diagnostics:

B6

- CXR: 1. Caudodorsal patchy interstitial pattern may reflect noncardiogenic pulmonary edema, in light of history of laryngeal paralysis; however given concurrent cardiomegaly and possible scant pleural effusion, the possibility of cardiogenic edema from decompensated heart failure is also considered. Echocardiography should be considered. Follow-up radiographs are recommended. 2. Tracheal narrowing at thoracic inlet may be consistent with dynamic airway disease. Fluoroscopy or tracheoscopy could be considered for further evaluation. 3. Moderate bilateral elbow, and mild bilateral shoulder, degenerative joint disease.

B6

B6

- SpO2 - 88-89% on room air
- CXR: 1. Progressive pulmonary infiltrates and unchanged cardiomegaly may again be compatible with decompensated congestive heart failure. Progressive noncardiogenic edema cannot be ruled out if the patient is experiencing ongoing upper airway obstruction, however echocardiography is strongly recommended prior to continuing IV fluid therapy and prednisone. Follow-up radiographs are recommended. 3. Persistent dynamic tracheal narrowing at thoracic inlet may again be consisted with dynamic airway disease

B6

B6

B6

- Cardiology consult: Markedly dilated hypocontractile LV. Respiratory artifact present. LA is moderate to markedly dilated. MV is thickened. RH is mildly dilated. PA is the same size as the aorta. No masses or dirofilaria visible. No pleural or pericardial effusion. Moderate MR and trace TR. Interpretation of findings is consistent with either DCM or mitral valve degeneration with secondary LV dilation.

B6

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

Assessments

A1: Eccentric cardiomyopathy with left sided CHF - r/o DCM vs DVMD

A2: Chronic progressive cough - r/o chronic bronchitis vs CHF vs non-cardiogenic edema secondary to upper airway obstruction

Plan

B6

SOAP completed by: **B6**

SOAP reviewed by: **B6**

Initial Complaint:

Recheck: **B6**

SOAP Text Mar 22 2019 12:13PM **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: | Labrador Retriever |
| Sex: | Female (Spayed) |
| Age: | B6 Years Old |

Lab Results Report

CBC, Comprehensive, Sm Animal **B6** 3:51:16 AM **Accession ID: B6**

| Test | Results | Reference Range | Units |
|--------------------|-----------|-----------------|-------|
| WBC (ADVIA) | B6 | 4.4 - 15.1 | K/uL |
| RBC(ADVIA) | | 5.8 - 8.5 | M/uL |
| HGB(ADVIA) | | 13.3 - 20.5 | g/dL |
| HCT(ADVIA) | | 39 - 55 | % |
| MCV(ADVIA) | | 64.5 - 77.5 | fL |
| MCH(ADVIA) | | 21.3 - 25.9 | pg |
| MCHC(ADVIA) | | 31.9 - 34.3 | g/dL |
| CHCM | | 0 - 0 | 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 | % |
| PDW | | 0 - 0 | % |
| RETIC(ADVIA) | | 0.2 - 1.6 | % |
| RETICS (ABS) ADVIA | | 14.7 - 113.7 | K/uL |
| CHR | | 0 - 0 | pg |
| MCVR | | 0 - 0 | fl |

CBC, Comprehensive, Sm Animal **B6** 3:51:25 AM **Accession ID: B6**

| Test | Results | Reference Range | Units |
|---------|-----------|-----------------|-------|
| GLUCOSE | B6 | 67 - 135 | mg/dL |
| UREA | | 8 - 30 | mg/dL |



12/198

B6

Printed Monday, March 25, 2019

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

| | | | |
|-------------------------|--|------------|--------|
| CREATININE | | 0.6 - 2 | mg/dL |
| PHOSPHORUS | | 2.6 - 7.2 | mg/dL |
| CALCIUM2 | | 9.4 - 11.3 | mg/dL |
| MAGNESIUM 2+ | | 1.8 - 3 | mEq/L |
| T. PROTEIN | | 5.5 - 7.8 | g/dL |
| ALBUMIN | | 2.8 - 4 | g/dL |
| GLOBULINS | | 2.3 - 4.2 | g/dL |
| A/G RATIO | | 0.7 - 1.6 | |
| SODIUM | | 140 - 150 | mEq/L |
| CHLORIDE | | 106 - 116 | mEq/L |
| POTASSIUM | | 3.7 - 5.4 | mEq/L |
| iCO2 (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 |

B6

CBC, Comprehensive, Sm Animal **B6** 3:51:10 AM Accession ID: **B6**

| Test | Results | Reference Range | Units |
|---------------------------------|---------|-----------------|----------|
| SEGS% | | 43 - 86 | % |
| L YMPHS% | | 7 - 47 | % |
| MONOS% | | 1 - 15 | % |
| EOS% | | 0 - 16 | % |
| NRBC | | 0 - 1 | /100 WBC |
| SEGS (AB)ADVIA | | 2.8 - 11.5 | K/uL |
| L YMPHS (ABS)ADVIA | | 1 - 4.8 | K/uL |
| MONOS (ABS)ADVIA | | 0.1 - 1.5 | K/uL |
| EOS (ABS)ADVIA | | 0 - 1.4 | K/uL |
| WBC MORPHOLOGY | | 0 - 0 | |
| Occasional reactive lymphocytes | | | |
| CRENATION | | 0 - 0 | |

B6

CBC, Comprehensive, Sm Animal **B6** 3:51:25 AM Accession ID: **B6**

| Test | Results | Reference Range | Units |
|------|---------|-----------------|-------|
|------|---------|-----------------|-------|



B6

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

| | | | |
|---------------|--|---------------|---------|
| 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 |
| 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

CBC, Comprehensive, Sm Animal **B6** 4:04:59 AM Accession ID: **B6**

| Test | Results | Reference Range | Units |
|----------------------|-----------|-----------------|-------|
| 4DX (omnicell)- FHSA | B6 | 0 - 0 | |

CBC, Comprehensive, Sm Animal **B6** 11:20:19 AM Accession ID: **B6**

| Test | Results | Reference Range | Units |
|------------|---------|-----------------|-------|
| GLUCOSE | | 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 |

B6



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

| | | | |
|-----------------------------------|-----------|-----------|--------|
| GLOBULINS | B6 | 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 | |
| Slight hemolysis Moderate lipemia | | | |

CBC, Comprehensive, Sm Animal **B6** 10:06:19 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 | | |



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

B6 **AH** **B6**

B6

B6 **B6**
B6 Retriever, Labrador SPAYED FEMALE 65.5 lbs
B6

Medical Exam - Monday **B6**

| History (Subjective): | | | |
|-------------------------|---|---------|---------|
| Reason for Visit: | | CANINE: | FELINE: |
| Meds/Supplements: | B6 | | |
| Additional Information: | B6 presented today for continued excessive coughing. Her cough is worse at night and has an extra sound at the end. Despite this, she is still very active, likes going for hikes, and seems to breathe better when outside. | | |

Respiratory: Normal Did Not Examine Abnormal

Additional Information:

Significant LarPar is noted from **B6** upon entering the clinic. She is panting, which may also be due to excitement. Some deep coughing noted after positioning for radiographs. Radiographs today show a significant interstitial pattern to the lung fields. Some cranial scalloping is noted. Thickening of the epiglottis is also noted.

As we discussed today, the interstitial pattern noted on the radiographs may be secondary to her LarPar. The coughing and heavy breathing lead to increased negative pressure within the thorax, which causes more fluid to be pulled from the blood vessels and into the pleural space. This exacerbates her coughing. The excessive coughing also places a lot of pressure on the epiglottis, and causes this to be very thickened and upset. Unfortunately, the other strong possibility with this disease is that it may be cancer that is spread throughout the lung fields.

For today, we will treat this with a broad spectrum **B6**

B6 Do expect an increase in water consumption, urination, panting and appetite on the **B6**

If all is going well, we can repeat radiographs in two weeks and assess changes. We will keep our lines of communication open until then, and you will call with any questions or concerns.

B6 is a great dog and we hope she feels better soon.

B6 Do continue her **B6**

- yogurt is okay
- hiking is okay

Tues **B6** start **B6**

ST 80-81

Sample Submission Form

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

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

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

Vet/Tech Contact: VMD
Company Name:
Address:

Email:
Tel: Fax:

Billing Contact: TAX ID:
Email: Tel:

Patient Name:
Species: dog
Owner's Name:

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

Taurine Results (nmol/ml)

Plasma: Whole Blood: Urine: _____ Food: _____

Reference Ranges (nmol/ml)

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

Fax Cover Page

Fax Number: **B6**

No. of pages: 29 (including cover page)

Date: 8/22/18

Subject: **B6** Healthcare information from **B6** Hospital

Message:

B6

ATTENTION: DR JENNIFER JONES

Attached you'll find a copy of the healthcare information for **B6**

Thank you for trusting us with **B6** healthcare. If you have any questions, please don't hesitate to call us at **B6**

Sincerely,

The healthcare team at **B6** hospital.

B6

B6 Hospital
B6

B6

MEDICAL HISTORY

27-Mar-2014 to 22-Aug-2018

Client

B6
Home: **B6**

Patient

B6

Canine
Retriever, Golden

B6

Golden
Male / Neutered - 65 lb (10-May-2018)

Most recent visit date: 10-May-2018
Microchip No.: n/a
Rabies tag ID / date : n/a

Patient Alerts: n/a

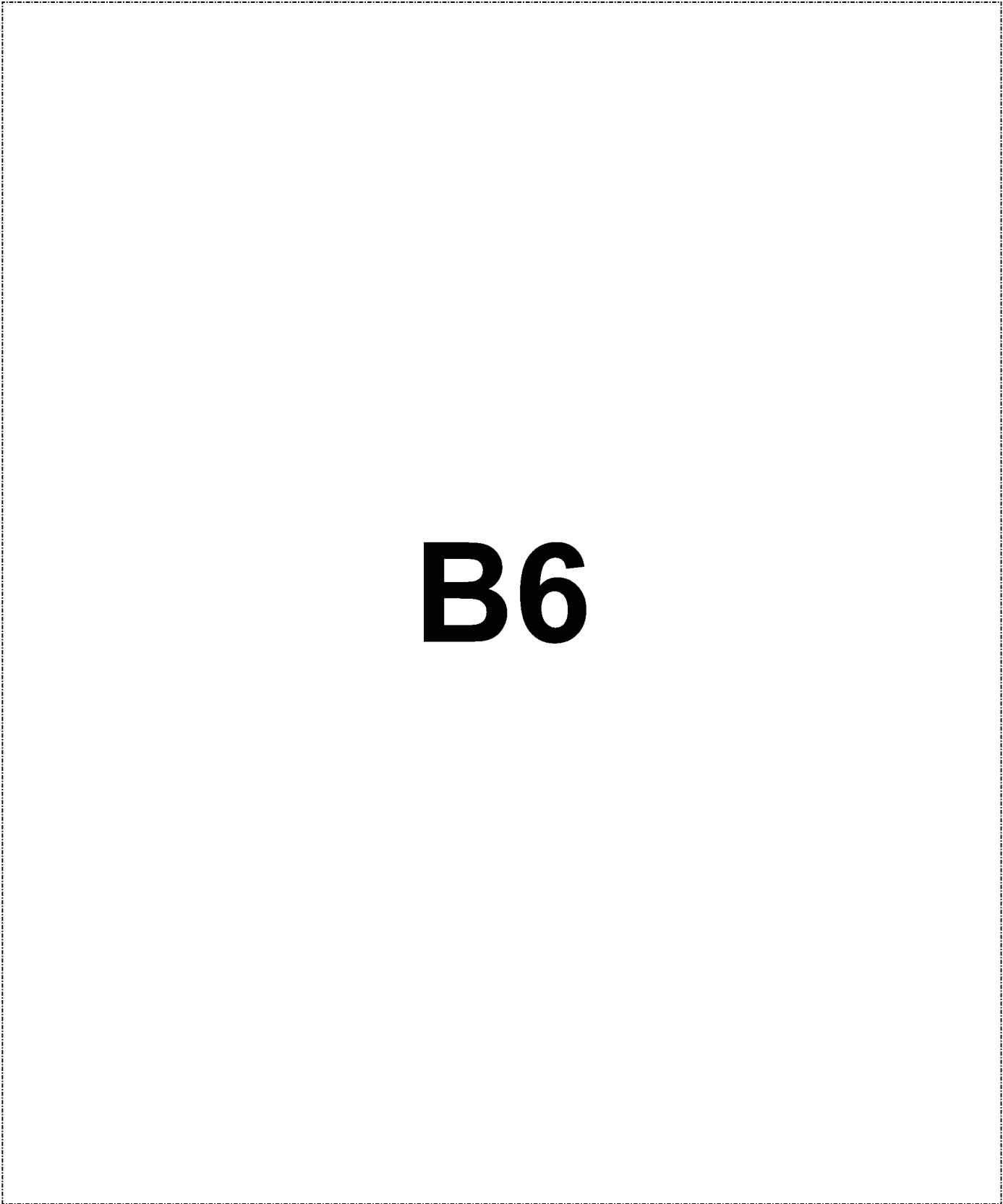
Current medical overview as of 22-Aug-2018

B6

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

MEDICAL HISTORY: 27-Mar-2014 to 22-Aug-2018

B6



B6

*Documents are available as separate attachments or files.

B6 Hospital
B6

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

MEDICAL HISTORY: 27-Mar-2014 to 22-Aug-2018

B6

B6

*Documents are available as separate attachments or files.

B6 Hospital
B6

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

B6

MEDICAL HISTORY: 27-Mar-2014 to 22-Aug-2018

Communication logs

| | Source | From | To | Created by/date |
|----------------------|--------|--|-----------|-----------------|
| 28-Apr-2016 19:09 | Phone | B6 | B6 | 28-Apr-2016 |
| | | swo will check B6 reports she dropped off | | |
| 19-May-2016 17:12 | Phone | B6 | B6 | 19-May-2016 |
| | | spoke to owner had questions yes OK to start heartworm preventative, ask B6 about possibly supplementing with Taurine if any benefit and will have Jen order 2 bottles of B6 also suggested applied kinesiology appointment to test all meds and supplements | | |
| 23-May-2016 10:50 | Phone | B6 | B6 | 23-May-2016 |
| | | request for med owner req B6 said sw M last week was going to have Jen order- no documentation -please advise | | |
| 16:34 | Phone | B6 | B6 | 23-May-2016 |
| | | LM that Jen ordered the B6 and that it was a computer glitch that delayed the order | | |
| 26-May-2016 17:03 | Phone | B6 | B6 | 26-May-2016 |
| | | meds ready Imom meds ready | | |
| 16-Jun-2016 10:30 | Phone | B6 | B6 | 16-Jun-2016 |
| | | owner called needs M to call standard process to find out how much L keratine is in K9 Cardiac support and K B6 As per B6 is to have 1000 mg of L Keratine per day | | |
| 20-Jun-2016 16:20 | Phone | B6 | B6 | 20-Jun-2016 |
| | | called B6 to check if any way to know how much L-Carnitine is in the Cardiac Support and Cardiotrophin | | |
| 16:31 | Phone | B6 | B6 | 20-Jun-2016 |
| | | spoke to owner will ask B6 to order 2 bottles of B6 increase dose to 3 tablets BID awaiting call back from B6 about L-Carnitine amount in their products | | |
| 22-Jun-2016 17:14 | Phone | B6 | B6 | 22-Jun-2016 |
| | | o req refill on canine cardiac support 100 gms B6 | | |
| 23-Jun-2016 08:43 | Phone | B6 | B6 | 23-Jun-2016 |
| | | meds ready swo, meds ready for pickup | | |
| 05-Jul-2016 16:27 | Phone | B6 | B6 | 05-Jul-2016 |
| | | spoke to owner --explained that B6 did check to see the amount of L-Carnitine in SP Cardiac Support and with his dosage of 3/4 tsp BID that he is getting 500 mg there for needs to supplement another 400 mg to get to 1,00.00 mg total recommended by B6 with our conversation--it turns out that owner thought the scoop in the bottle was 1.0, tsp but I explained that it actually 1/2 tsp therefore needs to give 1 1/2 scoops to get to 3/4 tsp!! | | |
| 17-Aug-2016 17:46 | Phone | B6 | B6 | 17-Aug-2016 |
| | | sp req will pickup | | |

*Documents are available as separate attachments or files.

B6 Hospital
B6

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

B6

MEDICAL HISTORY: 27-Mar-2014 to 22-Aug-2018

| Source | From | To | Created by/date |
|----------------------|--|-----------|-------------------------------------|
| | owner req refills of B6 (2 boxes) and K9 cardiac support | | will pickup does not want drop ship |
| 24-Aug-2016 08:42 | Phone | B6 | 24-Aug-2016 |
| | meds ready called owner im on am meds ready | | |
| 03-Oct-2016 18:17 | Phone | B6 | 03-Oct-2016 |
| | o req refill of B6 90 count-2 bottles please | | |
| 05-Oct-2016 16:37 | Phone | B6 | 05-Oct-2016 |
| | meds ready-lmom | | |
| 08-Nov-2016 17:25 | Phone | B6 | 08-Nov-2016 |
| | med refill request o called in and requested a refill of K9 cardiac supp. and 2 bottles of B6 call B6 when ready. o is aware it may need to be ordered. | | |
| 11-Nov-2016 16:24 | Phone | B6 | 11-Nov-2016 |
| | lmom meds ready | | |
| 22-Nov-2016 17:12 | Phone | B6 | 22-Nov-2016 |
| | checking to see if script was approved o called to see if her online pharmacy script came over. I let o know it just came over but M won't be in until Monday. script in M's box to be signed. o says she wants a 12 pk for each instead of the 6pk she put in for. | | |
| 31-Dec-2016 10:54 | Phone | B6 | 31-Dec-2016 |
| | med refill o wants to order 2 bottles each of B6 and cardio support | | |
| 05-Jan-2017 13:18 | Phone | B6 | 05-Jan-2017 |
| | meds ready called owner and lm on am meds are ready | | |
| 23-Feb-2017 11:00 | Phone | B6 | 23-Feb-2017 |
| | refills Owner would like refill on k-9 cardiac support (1), and B6 (2) | | |
| 10-Mar-2017 14:39 | Phone | B6 | 10-Mar-2017 |
| | owner would like consolidate as many test as possible between us and B6 req to speak to M | | |
| 13-Mar-2017 19:59 | Phone | B6 | 13-Mar-2017 |
| | spoke to Mrs--recommended doing the Best Care here and allow B6 repeat X-Rays since they charge them for interpretation | | |
| 28-Mar-2017 13:39 | Phone | B6 | 28-Mar-2017 |
| | owner req 2 B6 and 1 cardiac support | | |
| 05-Apr-2017 | Phone | B6 | 05-Apr-2017 |

*Documents are available as separate attachments or files.

B6 Hospital
B6

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

MEDICAL HISTORY: 27-Mar-2014 to 22-Aug-2018

B6

B6

*Documents are available as separate attachments or files.

B6 Hospital **B6**

Client: [B6] Patient: [B6]

[B6]

MEDICAL HISTORY: 27-Mar-2014 to 22-Aug-2018

13-Apr-2017 Exam

[B6]

11:06

ASSESSMENTS

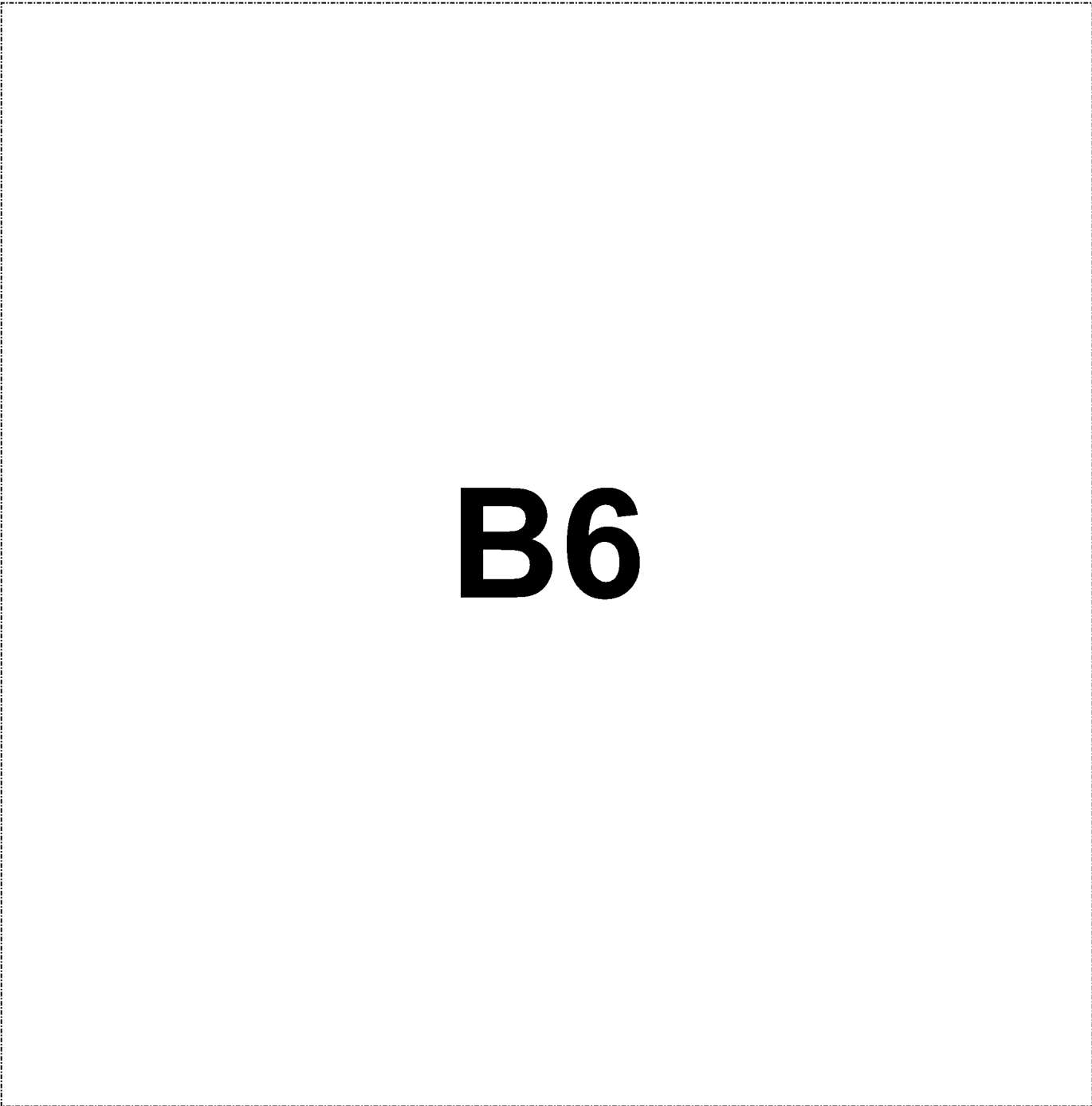
Wellness

No clinical signs from his Cardiomyopathy
Extremely active --always

PLANS

Wellness

Best Care with Accuplex



B6

*Documents are available as separate attachments or files.

[B6] Hospital
[B6]

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

MEDICAL HISTORY: 27-Mar-2014 to 22-Aug-2018

B6

B6

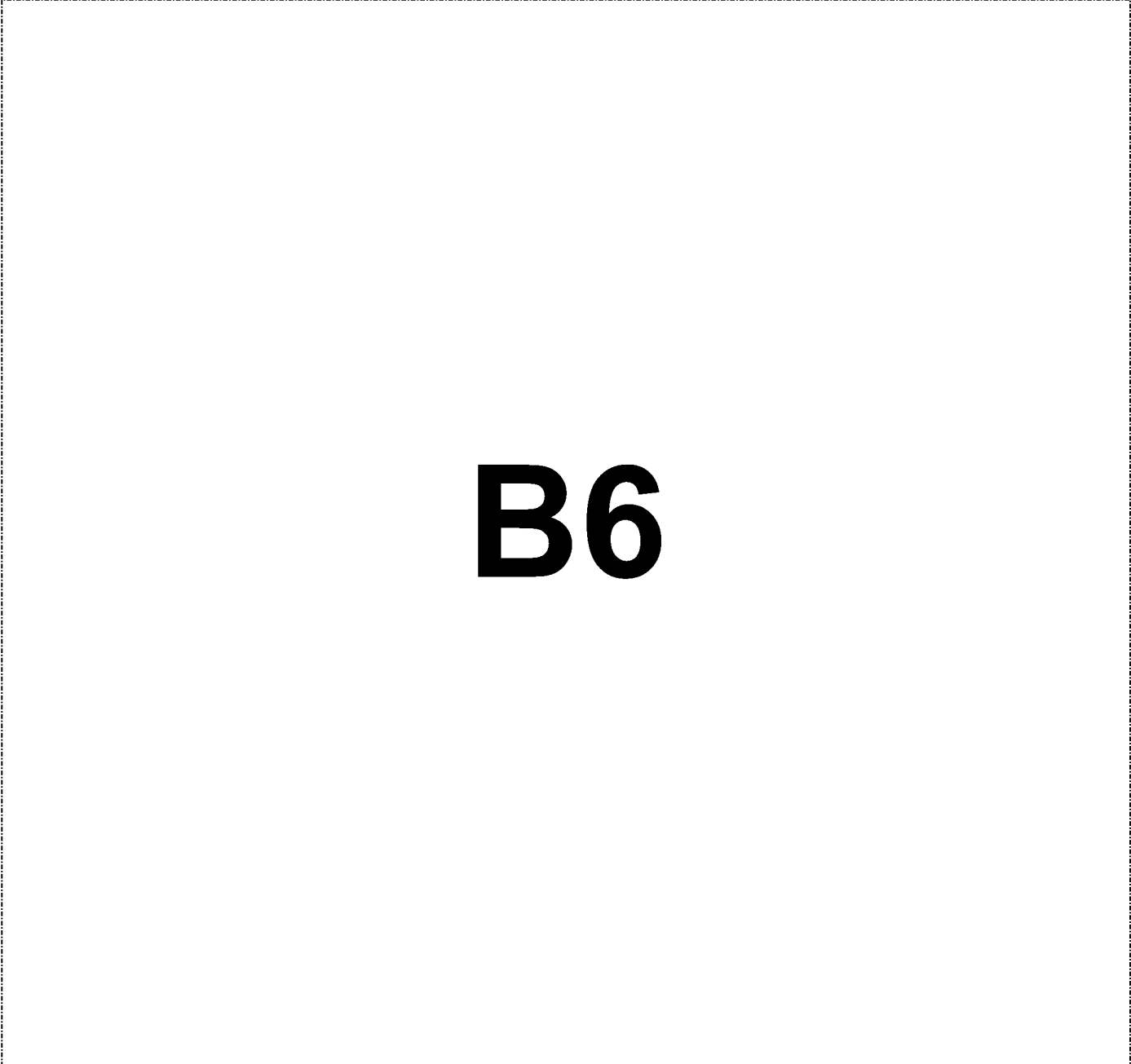
*Documents are available as separate attachments or files.

B6 Hospital **B6**

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

B6

MEDICAL HISTORY: 27-Mar-2014 to 22-Aug-2018



B6

05-Apr-2018 Phone **B6** **B6** **B6** /05-Apr-2018

14:52

Taurine testing \$16755 requirements
Requirements Taurine Testing
-whole blood in green top
-1/2 ml kept cold
-10-14 day turnaround
- cost of test for client \$273

16-Apr-2018 Phone **B6** **B6** **B6** /16-Apr-2018

14:53

owner called said she has info that you will want to hear- please call - offered open appt declined

*Documents are available as separate attachments or files.

B6 Hospital
B6

Client: [B6] Patient: [B6]

[B6]

MEDICAL HISTORY: 27-Mar-2014 to 22-Aug-2018

| | Source | From | To | Created by/date |
|-------|--------|--|------|------------------|
| 20:40 | Phone | [B6] | [B6] | [B6] 16-Apr-2018 |
| | | spoke to Cardiologist at U of Davis in CA (Joshua Stern) --wants to have blood sent to him to check Taurine level since the 20 cases he is working with Dilated Cardiomyopathy are on the same diet (Acana --pork and squash) which have been found to be deficient in taurine and predisposing dogs to developing DCM !!!! owner will give me the instructions as to what blood she needs ---- thinks whole blood and plasma-- told owner she will need to ship herself | | |

Outpatient visit (18-Apr-2018 to 18-Apr-2018)

Appointment Type: Tech Provider: [B6] Hospital Sex / age / weight: Male - Neutered [B6] / 65 lb (10-May-2018)

Concerns (Problem List)

Active

- Wellness (13-Apr-2017)

18-Apr-2018 Order items

- Opened Order In Error [609.1]: 1.00 each
 - We did not have the correct green top to draw blood for study [B6]

Outpatient visit (18-Apr-2018 to 18-Apr-2018)

Appointment Type: Tech Provider: [B6] Hospital Sex / age / weight: Male - Neutered [B6] / 65 lb (10-May-2018)

Concerns (Problem List)

Active

- Wellness (13-Apr-2017)

18-Apr-2018 Order items

- Miscellaneous Professional Service [39.187]: 1.00 proc

Communication logs

| | Source | From | To | Created by/date |
|----------------------|--------|---|------|-------------------|
| 21-Apr-2018 20:57 | Phone | [B6] | [B6] | [B6] /21-Apr-2018 |
| | | LM I did get the E-Mailed results of the Taurine levels in Plasma and Whole blood--both are well below normal!!!! [B6] Cardiomyopathy may be reversible with change in diet !!!! or adding Taurine to diet! | | |

Outpatient visit (10-May-2018 to 10-May-2018)

Appointment Type: Wellness Provider: [B6] Sex / age / weight: Male - Neutered / [B6] / 65 lb (10-May-2018)

Concerns (Problem List)

Active

- Wellness (10-May-2018)
- Wellness (13-Apr-2017)

10-May-2018 Exam

11:44

Assisted by: [B6]

11:44 [B6]

*Documents are available as separate attachments or files.

[B6] Hospital [B6]

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

MEDICAL HISTORY: 27-Mar-2014 to 22-Aug-2018

B6

10-May-2018 Exam

11:44

Assisted by:

B6

B6

General findings

Client comment - No C/S/V/D --owner can never obtain urine sample
No issues-- changed food recently and has lost 3 lbs, but has increased amount

EXAM FINDINGS

B6

Cardiovascular General findings WNL

B6

ASSESSMENTS

Wellness

PE --WNL

PLANS

Wellness

B6

10-May-2018 Order items

B6

Lab results

*Documents are available as separate attachments or files.

B6 Hospital
B6

Client: [B6] Patient: [B6]

[B6]

MEDICAL HISTORY: 27-Mar-2014 to 22-Aug-2018

11-May-2018 [B6] [B6]

10:57

Source: [B6] Submitted: 10-May-2018 | Reported: 11-May-2018

[Report (if included in export) is located at the end of this document.]

Communication logs

| | Source | From | To | Created by/date |
|----------------------|--------|---|------|-------------------|
| 12-May-2018 15:43 | Phone | [B6] | [B6] | [B6] /12-May-2018 |
| | | Blood work WNL, U/A 2 + bilirubin, but all else normal --significance ??-urine was collected off PP pad in office drop by drop -- would recommend repeating Titers both good for Distemper/Parvo | | |

| | | | | |
|----------------------|-------|------|------|-------------------|
| 13-May-2018 20:51 | Phone | [B6] | [B6] | [B6] /13-May-2018 |
| | | [B6] | | |

| | | | | |
|----------------------|-------|------|------|-------------------|
| 14-May-2018 14:22 | Phone | [B6] | [B6] | [B6] /14-May-2018 |
| | | [B6] | | |

| | | | | |
|-------|-------|------|------|-------------------|
| 16:34 | Phone | [B6] | [B6] | [B6] /14-May-2018 |
| | | [B6] | | |

| | | | | |
|-------|-------|------|------|-------------------|
| 19:07 | Phone | [B6] | [B6] | [B6] /14-May-2018 |
| | | [B6] | | |

| | | | | |
|----------------------|-------|---|------|-------------------|
| 08-Aug-2018 15:28 | Phone | [B6] | [B6] | [B6] /08-Aug-2018 |
| | | owner req to speak to [B6] in regards tourine levels and fda will be contacting us Jennifer Jones | | |

| | | | | |
|----------------------|-------|---|------|-------------------|
| 09-Aug-2018 09:47 | Phone | [B6] | [B6] | [B6] /09-Aug-2018 |
| | | Joshua Stern, DVM-- U C Davis doing research FDA Jennifer Jones will be requesting records since many dogs have DCM secondary to grain free diets esp with peas and potatoes | | |

| | | | | |
|----------------------|-------|------|------|-------------------|
| 16-Aug-2018 10:59 | Phone | [B6] | [B6] | [B6] /16-Aug-2018 |
| | | [B6] | | |

| | | | | |
|-------|-------|---|------|-------------------|
| 13:22 | Phone | [B6] | [B6] | [B6] /16-Aug-2018 |
| | | Note regarding above photo Hi [B6] Please forward to [B6] | | |

[B6]

Thanks

[B6]

*Documents are available as separate attachments or files.

[B6] Hospital [B6]

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

B6

MEDICAL HISTORY: 27-Mar-2014 to 22-Aug-2018

| | Source | From | To | Created by/date |
|----------------------|--------|--|-----------|------------------------|
| | | B6 | | |
| 14:55 | Phone | B6 | B6 | B6 /16-Aug-2018 |
| | | B6 | | |
| 15:15 | Phone | B6 | B6 | B6 /16-Aug-2018 |
| | | O phoned, Returning your call. please call B6 | | |
| 18-Aug-2018 13:00 | Phone | B6 | B6 | B6 18-Aug-2018 |
| | | B6 | | |
| 22-Aug-2018 14:24 | Phone | B6 | B6 | B6 /22-Aug-2018 |
| | | ok to send records for B6 to the FDA Dr Jennifer Jones 301-210-4685 | | |

*Documents are available as separate attachments or files.

B6 Hospital
B6

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

B6

MEDICAL HISTORY: 27-Mar-2014 to 22-Aug-2018

DIAGNOSTIC REPORT

B6

B6 Hospital
B6

B6

Patient Demographics

| | | | |
|-----------------------|------------------------|----------|--|
| B6 | Study Date: 08/22/2018 | | |
| Patient ID: B6 | Gender: M | Wt: 29kg | |
| DOB: B6 | | | |
| Comments: B6 | | | |

Adult Echo: Measurements and Calculations

2D

| LA Dimen (2D) | | LA/Ao (2D) | | AoR Diam (2D) | |
|---------------|-----------|----------------|-----------|---------------|-----------|
| MMode | | | | | |
| IVSd (MM) | B6 | EDV (MM-Teich) | B6 | LA Dimen (MM) | B6 |
| LVIDd (MM) | | ESV (MM-Teich) | | | |
| LVPWd (MM) | | SV (MM-Teich) | | | |
| IVSs (MM) | | FS (MM-Teich) | | | |
| LVIDs (MM) | | EF (MM-Teich) | | | |
| LVPWs (MM) | | IVS % (MM) | | | |
| | | | | | |

Doppler

| | | | | | |
|---|-----------|---------------------------|-----------|--------|-----------|
| LVOT Vmax Max PG Vmax | B6 | MVA (P _{1/2} t) | B6 | MV E/A | B6 |
| MV P _{1/2} t P _{1/2} t | | MV Peak E Ve Vel PG | | | |
| MV Dec Slope Slope | | MV Peak A Ve Vel PG | | | |

Comments

Dilated Cardiomyopathy--improvement Technically challenging study as pet is frantically panting which confounds accurate assessment of heart function

- Marked improvement in the left ventricular chamber dimensions
- Improved LVIDS as well as an increased ESV
- Improved EPSS
- Left atrial enlargement
- Annular dilation with secondary mitral regurgitation
- Cannot assess the **B6** as patient is panting, anxious and uncooperative

This document has been electronically signed by **B6** VMD, DACVIM (Cardiology)

B6

08/22/2018

Created: 11:41AM 08/22/2018

2/2

B6

****REVISED VERSION****

| Patient | | Client | |
|--|---------------------------------|--------------------|----|
| B6 Male, Canine Breed: Retriever, Golden (Gold) Age: B6 | | B6 | |
| VSEC Doctor: Chief of Cardiology | B6 VMD, DACVIM (Cardiology), | pDVM: Hospital: | B6 |
| Location: | B6 | | |

Diagnosis:

B6 Dilated Cardiomyopathy ----improvement on the current therapy

Weight:

| | B6 | | |
|------------|----------|----------|----------|
| Vital Sign | 12:26 PM | 12:47 PM | 11:16 AM |
| Weight | B6 | | |

Presenting Concern:

B6 is here today for radiographs and an echocardiogram. His owner reports that he is doing well at home. He is not showing any cardiac symptoms. He is having a Taurine level checked through her pDVM and sent to Dr. Stern (UC Davis)

History:

Past pertinent history - B6 Dilated Cardiomyopathy

Recent history -

- Coughing/gagging/wheezing: no
- Breathing changes: none
- Sleeping RR: 12-28
- Sleep quality: normal
- Exercise intolerance: none
- Appetite: good
- V/D/U/BM: none
- Fainting/Episodes: none
- **Diet: The Real Meat Company ,90% beef, "air dried" No legumes, Grain free, No potatoes**
- Grain Free: YES
- Heartworm test: May 2018
- Heartworm preventative: Interceptor

Medications Upon Presentation:

B6

Client: B6 Patient: B6 Page: 1

B6

Previous Diagnostics:

- 4/19/18 pDVM Taurine level: B6 (prior to Taurine supplementation)
- 5/11/18 pDVM bloodwork: B6
- B6 B6 radiographs: 1. Static mild generalized cardiomegaly with evidence of right-sided hypertrophy secondary to the reported ventricular septal defect and dilated cardiomyopathy. There is no radiographic evidence of left-sided cardiac decompensation. 2. Otherwise radiographically normal and unchanged thorax.
- B6 B6 echocardiogram: dilated cardiomyopathy—fairly stable, ventricular septal defect
- B6 B6 blood work: B6
- B6 B6 echocardiogram: dilated cardiomyopathy—fairly stable, ventricular septal defect

Cardiovascular Examination:

Auscultation: Grade 4/6 coarse ejection quality murmur at the left heart base with a grade 5/6 holosystolic murmur more blowing quality at the right and coarser. Heart rate 150bpm with a normal rhythm. Lungs clear.

Thrill: faint right

PMI: right

Femoral Artery: good bilaterally, symmetrical synchronous

Other Physical Exam Findings: BAR, panting frantically, very anxious

Radiographic Interpretation:

Cardiomegaly: B6 with left atrial enlargement, evidence of right-sided enlargement and a prominent main pulmonary artery on the DV. There is no radiographic evidence of left-sided cardiac decompensation.

Release Notes:

1. The echo parameters are improved and the radiographs, although they show heart enlargement, reveal no evidence of congestive heart failure. The function of the heart was difficult too assess as B6 was very anxious today and was panting very hard throughout the echogram.
2. Dr. Stern is handling B6 Taurine levels. Please discuss the mega dosed supplementation with him so there are no conflicting opinions and recommendations. Please make certain he has approved the current diet if he has any diet recommendations.
3. There have been some nutritionists that do not recommend mega dosing Taurine (I do not usually recommend doses this high) as this may have other consequences. Pease discuss all of this with Dr. Stern as he is the leading researcher in the investigation into diet related DCM in Golden Retrievers and the potential for Taurine responsive disease.
4. If Dr. Stern feels he would like to follow B6 as we wean the cardiac medications, please let us know, Until B6 plasma Taurine are normal (if that occurs), I am not inclined to take him off his current cardiac current medications.
5. Dr. Stern is welcome to contact me any time at the contact information above. I have forwarded today's information to Dr. Stern for his review.

Medications upon Discharge:

Please continue the following medications (please note any changes):

B6

B6

Supplements

B6

Please contact your primary veterinarian or **B6** for refills. When calling for medication refills, please provide 48 hours notice to allow the Cardiology Department time to review your records. We are in the office Monday through Thursday 8am – 5pm to receive refill requests however, medications are not filled during appointment hours while we are caring for our patients. Please keep in mind we are not a dispensing pharmacy and have no pharmacist on staff. Thank you for your consideration.

Recheck Recommendations:

Recheck blood work- obtain a Taurine level sent to UC Davis (whole blood and plasma as **B6** has been diagnosed with DCM) and it has been 4 months since the baseline

Recheck radiographs in 4 months

Recheck echocardiogram in 4 months, sooner if Dr. Stern would want to begin to wean the medical therapy implemented for the DCM (pimobendan and enalapril)

For your convenience, you may schedule any follow-up tests (other than an echocardiogram) either here as a cardiology nurse appointment or with your regular veterinarian. If you choose to have your radiographs taken by your regular veterinarian, there will be a small consultation fee for the cardiologist to evaluate those radiographs and make treatment recommendations. The consultation will be shared with both you and your regular veterinarian to assure the best care possible for your pet.

Attending Veterinarian:

B6

B6 VMD, DACVIM (Cardiology), Chief of Cardiology

Thank you for allowing the **B6** to participate in the care of **B6**. If you have any questions or concerns regarding the treatments or recommendations for **B6** please call **B6** at **B6**. The **B6** is open 24 hours each day for the care and treatment of your pet.

B6

B6

| Patient | | Client | |
|--|---------------------------|--------------------|----|
| B6 Male, Canine Breed: Retriever, Golden (Gold) Age: B6 | | B6 | |
| B6 Doctor: B6 Chief of Cardiology | VMD, DACVIM (Cardiology), | pDVM: Hospital: | B6 |
| Location: B6 | | | |

Vital Signs:

| Vital Sign | B6 12:26 PM | B6 12:47 PM |
|-------------|----------------|----------------|
| Weight | B6 | |
| Temp | | |
| HR | | |
| RE | | |
| CRT | | |
| MM Pulse | | |

Presenting Concern:

B6 is here today for recheck bloodwork and radiographs. His owners report that he is doing well at home and continues to show no clinical signs of heart disease. Sleeping respiratory rates are in the 20s.

History:

Past pertinent history - B6 Dilated Cardiomyopathy

Recent history -

- Coughing/gagging/wheezing: No coughing/gagging/wheezing
- Breathing changes: No noted changes to breathing
- Sleeping RR: 20s
- Sleep quality: Sleeps well
- Exercise intolerance: No intolerance noted; is very active
- Appetite: Eating well
- V/D/U/BM: Normal eliminations
- Fainting/Episodes: No episodes reported
- Diet: Acana and Orejin; freeze dried sweet potato treats
- Heartworm test: Tested negative April 2017
- Heartworm preventative: Interceptor every 45 days from May to November
- Vaccine status: Titters tracked

Medications Upon Presentation:

B6

Client: B6 Patient: B6 Page: 1

B6

Previous Diagnostics:

- **B6** echocardiogram: dilated cardiomyopathy—fairly stable, ventricular septal defect
- **B6** *radiographs*: The cardiac silhouette is persistently enlarged, similar to previously. The vasculature structures are normal. The lungs are normal for a patient of this age without evidence of nodules or masses. The pleural and mediastinal spaces are normal. The serosal detail is adequate within the visible abdomen. Conclusions: Static cardiomegaly consistent with the known cardiac disease. No evidence of congestive heart failure. Otherwise normal thorax.
- 4/13/2017 pDVM Bloodwork: BUN **B6** Creatinine **B6**

Radiographic Interpretation:

Official interpretation pending

VSEC Diagnostics:

| Date/Time | Test | Result | Reference Range |
|-----------|-----------|-----------|-----------------|
| B6 | ALB | B6 | 2.5 - 4.0 |
| | ALKP | | 0 - 140 |
| | ALT | | 0 - 120 |
| | Ca | | 9.0 - 12.2 |
| | Chloride | | 102 - 120 |
| | CHOL | | 120 - 310 |
| | CREA | | 0.4 - 1.4 |
| | GGT | | 0 - 14 |
| | GLU | | 75 - 125 |
| | PHOS | | 1.9 - 5.0 |
| | Potassium | | 3.8 - 5.3 |
| | TBIL | | 0.0 - 0.5 |
| | TP | | 5.5 - 7.6 |
| | Sodium | | 141 - 152 |
| | GLOB | | 2.0 - 3.6 |
| | ALB/GLOB | | |
| | BUN | | 9.0 - 29.0 |
| Na/K | | | |
| BUN/Creat | | | |

Lab Comments: Species: Dog AnalyzerType: DriChem AnalyzerName: DRI-CHEM_1

Release Notes:

1. **B6** bloodwork today was normal.
2. His chest radiographs will be reviewed by **B6** as well as one of our radiologists, and we will contact you with any abnormalities or concerns. A formal report will be forwarded to your primary veterinarian once available.
3. Please continue tracking **B6** sleeping respiratory rates, and monitor for any coughing, exercise intolerance, or changes to appetite.
4. We will continue medications as prescribed by **B6** and will contact you should the radiograph report warrant medication adjustments.

Medications upon Discharge:

Please continue the following medications:

B6

Client: **B6** Patient: **B6** Page: 2

B6

rDVM prescribed medications:

B6

When calling for medication refills, please provide 48 hours notice to allow the Cardiology Department time to review your records. We are in the office Monday through Friday 8am – 6pm. Your refills can be called in to the pharmacy of your choice or filled at **B6**. Medications are not filled during appointment hours while we are caring for our patients. Thank you for your consideration.

Recheck Recommendations:

Recheck blood work every 4 months

Recheck radiographs every 4 months

Recheck echocardiogram in May 2018

For your convenience, you may schedule any follow-up tests (other than an echocardiogram) either here as a cardiology nurse appointment or with your regular veterinarian. If you choose to have your radiographs taken by your regular veterinarian, there will be a small consultation fee for the cardiologist to evaluate those radiographs and make treatment recommendations. The consultation will be shared with both you and your regular veterinarian to assure the best care possible for your pet.

B6 care was provided by **B6** on behalf of **B6**.

Attending Veterinarian:

B6

B6 VMD, DACVIM (Cardiology), Chief of Cardiology

Thank you for allowing the **B6** to participate in the care of **B6**. If you have any questions or concerns regarding the treatments or recommendations for **B6** please call **B6**. The **B6** is open 24 hours each day for the care and treatment of your pet.

Client: **B6** Patient: **B6** Page: 3

B6

B6

| Patient | | Client | |
|--|---------------------------|-----------|----|
| B6 Male, Canine Breed: Retriever, Golden (Gold) Age: B6 | | B6 | |
| B6 Doctor: B6 Chief of Cardiology | VMD, DACVIM (Cardiology), | pDVM: | B6 |
| Location: B6 | | Hospital: | |

Diagnosis:

Dilated Cardiomyopathy---stable, B6

Weight:

| | B6 | B6 |
|------------|----------------|----------------|
| Vital Sign | 11:31 AM | 12:26 PM |
| Weight | 31.3 kilograms | 32.8 kilograms |

Presenting Concern:

B6 is here today for an echocardiogram. He has been doing well at home with no concerns.

History:

Past pertinent history B6 Dilated
Cardiomyopathy

Recent history –

- Coughing/gagging/wheezing: No coughing/gagging/wheezing
- Breathing changes: No changes
- Sleeping RR: 16-28bpm (varies)
- Sleep quality: Normal
- Exercise intolerance: No intolerance noted
- Appetite: Normal
- V/D/U/BM: Normal eliminations
- Fainting/Episodes: No fainting or collapse episodes
- Diet: Acana kibble
- Heartworm test: Current
- Heartworm preventative: Interceptor every 45 days
- Vaccine status: Titers are current

Medications Upon Presentation:

B6

B6

Previous Diagnostics:

- **B6** **B6** *radiographs:* The cardiac silhouette is persistently enlarged, similar to previously. The vasculature structures are normal. The lungs are normal for a patient of this age without evidence of nodules or masses. The pleural and mediastinal spaces are normal. The serosal detail is adequate within the visible abdomen. Conclusions: Static cardiomegaly consistent with the known cardiac disease. No evidence of congestive heart failure. Otherwise normal thorax.
- 4/13/2017 pDVM Bloodwork: BUN **B6** Creatinine **B6**
- 4/13/2017 pDVM Bloodwork: BUN **B6** Creatinine **B6**
- 4/13/2017 pDVM Urinalysis: specific gravity **B6** pH **B6** Protein **B6**
- **B6** **B6** Bloodwork: BUN **B6** Creat **B6** Potassium **B6**
- **B6** **B6** *Radiographs:* progressive enlargement of the right heart is suspected, which could be secondary to the congenital cardiac defect. There is no evidence of congestive heart failure at this time.
- **B6** **B6** *Echocardiogram:* dilated cardiomyopathy, **B6** and does not impact any volume load on the left heart

Cardiovascular Examination:

B6

Release Notes:

1. **B6** murmur is the same in intensity and quality on today's physical examination as previously noted.
2. The echocardiogram reveals fairly stable left ventricular and left atrial sizes with decreased myocardial function as previously mentioned. There is no improvement in any indice.
5. Please continue to track the sleeping respiratory rates and call with any questions or concerns.

Medications upon Discharge:

Please continue the following medications (please note any changes):

B6

rDVM prescribed medications:

B6

Please contact your primary veterinarian or **B6** for refills. When calling for medication refills, please provide 48 hours notice to allow the Cardiology Department time to review your records. We are in the office Monday through Friday 8am – 6pm. Medications are not filled during appointment hours while we are caring for our patients. Thank you for your consideration.

B6

Recheck Recommendations:

Recheck blood work every 4 months

Recheck radiographs every 4 months

Recheck echocardiogram in 8 months

For your convenience, you may schedule any follow-up tests (other than an echocardiogram) either here as a cardiology nurse appointment or with your regular veterinarian. If you choose to have your radiographs taken by your regular veterinarian, there will be a small consultation fee for the cardiologist to evaluate those radiographs and make treatment recommendations. The consultation will be shared with both you and your regular veterinarian to assure the best care possible for your pet.

Attending Veterinarian:

B6

B6 VMD, DACVIM (Cardiology), Chief of Cardiology

Thank you for allowing the **B6** to participate in the care of **B6**. If you have any questions or concerns regarding the treatments or recommendations for **B6** please call **B6** at **B6**. The **B6** is open 24 hours each day for the care and treatment of your pet.

B6

B6

| Patient | | Client | |
|--|--|--------------------|----|
| B6 Male, Canine Breed: Retriever, Golden (Gold) Age: B6 | | B6 | |
| B6 Doctor: B6 VMD, DACVIM (Cardiology), Chief of Cardiology | | pDVM: Hospital: | B6 |
| Location: B6 | | | |

Diagnosis:

B6, Dilated Cardiomyopathy

Weight:

| | | |
|------------|---------|----------|
| | B6 | B6 |
| | 4:07 PM | 11:00 AM |
| Vital Sign | B6 | B6 |
| Weight | B6 | |

Presenting Concern:

B6 is here for a Cardiology Consultation for a 2nd opinion. He has history of a heart murmur since 8 weeks old and was diagnosed with a B6 by B6 DVM, Diplomate ACVIM (Cardiology) on B6 B6 was re-echoed at 1 year of age by B6, M.S., VMD on B6 and again at 2 years of age on B6 Dr. B6 has suggested the use of B6 twice a day and client would like a 2nd opinion. B6 is asymptomatic at home.

History:

Past pertinent history - B6

Recent history -

- Coughing/gagging/wheezing: no
- Breathing changes: no effort is noted at home
- Sleeping RR: NOT tracking
- Sleep quality: normal
- Exercise intolerance: maintains normal activity
- Appetite: normal
- V/D/U/BM: normal
- Fainting/Episodes: no
- Owner's concerns: when to start Pimobendan
- Diet: Acana kibble
- Heartworm test: negative
- Heartworm preventative: Interceptor
- Vaccine status: Rabies - current

Medications Upon Presentation:

| | |
|------------|-------------|
| B6 | |
| B6 | |
| Client: B6 | Patient: B6 |

Cosequin once a day

Previous Diagnostics:

| | | | | | |
|-----------|----------------|----|-----|----|-----------------------------------|
| B6 | Echocardiogram | B6 | LLC | B6 | DVM, Diplomate ACVIM (Cardiology) |
| | Echocardiogram | B6 | - | B6 | MS, VMD |
| | Echocardiogram | B6 | - | B6 | MS, VMD |

4/8/16 rDVM BW: CBC - WNL, UA- WNL, Heartworm- neg, CHEM - BUN: B6 Creat: B6, K: B6

Cardiovascular Examination:

Auscultation: Grade 4/6 coarse holosystolic murmur at the left heart base with a grade 4-5/6 holosystolic murmur at the right . Heart rate 140bpm with a normal rhythm. Lungs clear.

Thrill: faint right

PMI: left and right

Femoral Artery: good bilaterally, symmetrical synchronous

Other Physical Exam Findings: BAR

Release Notes:

Dilated cardiomyopathy (DCM) is a disease where the heart muscle becomes weak and has difficulty contracting to pump blood out of the heart throughout the body. Because of this weakening, the heart chambers become enlarged, one or more heart valves may leak, and signs of congestive heart failure (fluid in the lungs) may develop. This disease most commonly affects large breed dogs; however, it has been documented in smaller breed dogs such as Cocker Spaniels. The cause of dilated cardiomyopathy is unknown; however, given the prevalence in of this disease in certain breeds we suspect a genetic basis for this disease. Occasionally, DCM-like heart muscle dysfunction develops secondary to identifiable causes such as toxins or an infection.

Early in the disease process there may be no clinical signs detectable. In some cases, a soft heart murmur, other abnormal heart sounds, and/or an irregular heart rhythm may be detected by your veterinarian on physical examination. Such findings are more likely as the disease progresses. The presence of heart muscle weakness and ventricular arrhythmias may result in weakness or lethargy, exercise intolerance, or fainting episodes (syncope). Unfortunately, these dogs are at risk of sudden death. As the heart’s pumping ability worsens, the heart enlarges and pressure builds up within the heart. When the heart is unable to compensate for the disease further, fluid may accumulate in the lungs (pulmonary edema), in the chest cavity (pleural effusion), or in the abdomen (ascites). These are signs of congestive heart failure. The presence of fluid in these areas can cause difficulty breathing or coughing.

Monitoring your pet’s **sleeping respiratory rate** is recommended. The sleeping respiratory rate (SRR) is a subtle and sensitive indicator of changes in your pet’s condition. Monitoring of the sleeping respiratory is recommended as increasing trends may suggest the development of congestive heart failure. Normal sleeping respiratory rates are less than 30 breaths per minute. When your pet is sleeping soundly, they may take as few as 18 or 20 breaths per minute which is completely normal. Increases in respiratory rate and effort while sleeping should be reported immediately.

How to count the respiratory rate: Count the respiratory rate by watching your pet’s chest go up and down (each up and down is one breath cycle). Using a clock or a watch with a second hand, count the number of breaths over 15 seconds and multiply by 4 to get the respirator rate for one minute. Counting the sleeping respiratory rate means you simply count the respiratory rate when your pet is sound asleep. We recommend that you track these rates for your pet’s entire life as they may help identify early concerns.

If your pet has an elevated sleeping respiratory rate, please count sleeping respiratory rates multiple times throughout the day and call us with an update.

Please report back to me in 3-5 days with your pet’s initial sleeping respiratory rates so that we can obtain a baseline. Record each day’s sleeping respiratory rate in a log so we can track any changes.

To download an application for tracking sleeping respiratory rates, please visit www.yourdogsheart.com and follow the link at the bottom of the page for the “Resting Respiratory Rate”.

B6

Client: B6

Patient: B6

Page: 2

Medications upon Discharge:

Please note the addition of the following new medications:

B6

rDVM prescribed medications:

B6

Please contact your primary veterinarian or **B6** for refills. When calling for medication refills, please provide 48 hours notice to allow the Cardiology Department time to review your records. We are in the office Monday through Friday 8am – 6pm. Medications are not filled during appointment hours while we are caring for our patients. Thank you for your consideration.

Recheck Recommendations:

Recheck blood work in 7 to 10 days after starting medication, and then again in 4 months

Baseline chest radiographs should be done with the recheck bloodwork

Recheck echocardiogram in 4 months

For your convenience, you may schedule any follow-up tests (other than an echocardiogram) either here as a cardiology nurse appointment or with your regular veterinarian. If you choose to have your radiographs taken by your regular veterinarian, there will be a small consultation fee for the cardiologist to evaluate those radiographs and make treatment recommendations. The consultation will be shared with both you and your regular veterinarian to assure the best care possible for your pet.

Attending Veterinarian:

B6

B6 VMD, DACVIM (Cardiology), Chief of Cardiology

Thank you for allowing the **B6** to participate in the care of **B6**. If you have any questions or concerns regarding the treatments or recommendations for **B6** please call **B6**. The **B6** is open 24 hours each day for the care and treatment of your pet.

B6

Client: **B6**

Patient: **B6**

B6 M.S., V.M.D.
Cardiology, **B6**
Consultations -- Education

B6

Date: **B6**
Owner: **B6**
Patient: **B6** (Golden Retriever 7 year old Intact)

ECG: HR 130/minute, sinus rhythm

Doppler: Trace (very mild) **B6** (age related)

Echocardiogram:
Contractility (Fractional Shortening) - 45% Good
LVIDs - 18mm (Apical Area)
LVIDd - 33mm
LVFW thickness s - 15mm
LVFW thickness d - 12mm
Interventricular septal thickness s- 15mm
Interventricular septal thicknes d -12mm
Left Atrium - 28mm
Aortic: Left atrial ratio - 1:1
Mitral valve - mild thickening
Right Ventricle - NR

Therapeutic guidelines: No cardiac drug therapy required at this time

Recommendations:

Assessment :
No evidence of Dilated Cardiomyopathy or other clinically significant valvular disease at this time

Cardiology Recheck : 1 Year - To asses for **B6**

B6

| Patient | | Client | |
|---------------------------------|--|--------------------|-----------|
| Sex: B6 Male, Canine | | B6 | |
| Breed: Retriever, Golden (Gold) | | | |
| Age: B6 | | | |
| B6 Doctor: B6 | VMD, DACVIM (Cardiology), Chief of Cardiology | pDVM: Hospital: | B6 |
| Location: B6 | | | |

Vital Signs:

| | B6 | B6 |
|------------|----------------|--------------------------------|
| Vital Sign | 12:26 PM | 12:47 PM |
| Weight | 32.8 kilograms | 30.9 kilograms 67.98 pounds |
| Temp | | 101 |
| HR | | 120 |
| RE | | Normal panting |
| CRT | | <2 sec |
| MM | | Pink and Moist |
| Pulse | | s/s |

Presenting Concern:

B6 is here today for recheck bloodwork and radiographs. His owners report that he is doing well at home and continues to show no clinical signs of heart disease. Sleeping respiratory rates are in the 20s.

History:

Past pertinent history - **B6** Dilated Cardiomyopathy

Recent history -

- Coughing/gagging/wheezing: No coughing/gagging/wheezing
- Breathing changes: No noted changes to breathing
- Sleeping RR: 20s
- Sleep quality: Sleeps well
- Exercise intolerance: No intolerance noted; is very active
- Appetite: Eating well
- V/D/U/BM: Normal eliminations
- Fainting/Episodes: No episodes reported
- Diet: Acana and Orejin; freeze dried sweet potato treats
- Heartworm test: Tested negative April 2017
- Heartworm preventative: Interceptor every 45 days from May to November
- Vaccine status: Titters tracked

Medications Upon Presentation:

B6

Client: **B6** Patient: **B6** Page: 1

B6

Previous Diagnostics:

- **B6** **B6** echocardiogram: dilated cardiomyopathy—fairly stable, ventricular septal defect
- **B6** **B6** radiographs: The cardiac silhouette is persistently enlarged, similar to previously. The vasculature structures are normal. The lungs are normal for a patient of this age without evidence of nodules or masses. The pleural and mediastinal spaces are normal. The serosal detail is adequate within the visible abdomen. Conclusions: Static cardiomegaly consistent with the known cardiac disease. No evidence of congestive heart failure. Otherwise normal thorax.
- 4/13/2017 pDVM Bloodwork: **B6**

Radiographic Interpretation:

Official interpretation pending

B6 **Diagnostics:**

| Date/Time | Test | Result | Reference Range |
|------------|-----------|-----------|-----------------|
| 12/27/2017 | ALB | B6 | 2.5 - 4.0 |
| 12/27/2017 | ALKP | | 0 - 140 |
| 12/27/2017 | ALT | | 0 - 120 |
| 12/27/2017 | Ca | | 9.0 - 12.2 |
| 12/27/2017 | Chloride | | 102 - 120 |
| 12/27/2017 | CHOL | | 120 - 310 |
| 12/27/2017 | CREA | | 0.4 - 1.4 |
| 12/27/2017 | GGT | | 0 - 14 |
| 12/27/2017 | GLU | | 75 - 125 |
| 12/27/2017 | PHOS | | 1.9 - 5.0 |
| 12/27/2017 | Potassium | | 3.8 - 5.3 |
| 12/27/2017 | TBIL | | 0.0 - 0.5 |
| 12/27/2017 | TP | | 5.5 - 7.6 |
| 12/27/2017 | Sodium | | 141 - 152 |
| 12/27/2017 | GLOB | | 2.0 - 3.6 |
| 12/27/2017 | ALB/GLOB | | |
| 12/27/2017 | BUN | | 9.0 - 29.0 |
| 12/27/2017 | Na/K | | |
| 12/27/2017 | BUN/Creat | | |

Lab Comments: Species: Dog AnalyzerType: DriChem AnalyzerName: DRI-CHEM_1

Release Notes:

1. **B6** bloodwork today was normal.
2. His chest radiographs will be reviewed by **B6** as well as one of our radiologists, and we will contact you with any abnormalities or concerns. A formal report will be forwarded to your primary veterinarian once available.
3. Please continue tracking **B6** sleeping respiratory rates, and monitor for any coughing, exercise intolerance, or changes to appetite.
4. We will continue medications as prescribed by **B6**, and will contact you should the radiograph report warrant medication adjustments.

Medications upon Discharge:

Please continue the following medications:

B6

B6

rDVM prescribed medications:

B6

When calling for medication refills, please provide 48 hours notice to allow the Cardiology Department time to review your records. We are in the office Monday through Friday 8am – 6pm. Your refills can be called in to the pharmacy of your choice or filled at **B6**. Medications are not filled during appointment hours while we are caring for our patients. Thank you for your consideration.

Recheck Recommendations:

Recheck blood work every 4 months

Recheck radiographs every 4 months

Recheck echocardiogram in May 2018

For your convenience, you may schedule any follow-up tests (other than an echocardiogram) either here as a cardiology nurse appointment or with your regular veterinarian. If you choose to have your radiographs taken by your regular veterinarian, there will be a small consultation fee for the cardiologist to evaluate those radiographs and make treatment recommendations. The consultation will be shared with both you and your regular veterinarian to assure the best care possible for your pet.

B6 care was provided by **B6** CVT on behalf of **B6**

Attending Veterinarian:

B6

B6 VMD, DACVIM (Cardiology), Chief of Cardiology

Thank you for allowing the **B6** to participate in the care of **B6**. If you have any questions or concerns regarding the treatments or recommendations for **B6**, please call **B6** at **B6**. The **B6** is open 24 hours each day for the care and treatment of your pet.

Client: **B6** Patient: **B6** Page: 3

B6

B6

| Patient | | Client | |
|--|--|-----------------------|--|
| B6 Male, Canine Breed: Retriever, Golden (Gold) Age: B6 | | B6 | |
| B6 Doctor: B6 VMD, DACVIM (Cardiology), Chief of Cardiology Location: B6 | | pDVM: Hospital: B6 | |

Diagnosis:

Dilated Cardiomyopathy---stable, Ventricular Septal Defect

Weight:

| | B6 | |
|------------|----------------|----------------|
| Vital Sign | 11:31 AM B6 | 12:26 PM B6 |
| Weight | 31.3 kilograms | 32.8 kilograms |

Presenting Concern:

B6 is here today for an echocardiogram. He has been doing well at home with no concerns.

History:

Past pertinent history - B6 Dilated
Cardiomyopathy

Recent history -

- Coughing/gagging/wheezing: No coughing/gagging/wheezing
- Breathing changes: No changes
- Sleeping RR: 16-28bpm (varies)
- Sleep quality: Normal
- Exercise intolerance: No intolerance noted
- Appetite: Normal
- V/D/U/BM: Normal eliminations
- Fainting/Episodes: No fainting or collapse episodes
- Diet: Acana kibble
- Heartworm test: Current
- Heartworm preventative: Interceptor every 45 days
- Vaccine status: Titers are current

Medications Upon Presentation:

B6

B6

Previous Diagnostics:

- [B6] [B6] *radiographs:* The cardiac silhouette is persistently enlarged, similar to previously. The vasculature structures are normal. The lungs are normal for a patient of this age without evidence of nodules or masses. The pleural and mediastinal spaces are normal. The serosal detail is adequate within the visible abdomen. Conclusions: Static cardiomegaly consistent with the known cardiac disease. No evidence of congestive heart failure. Otherwise normal thorax.
- 4/13/2017 *pDVM Bloodwork:* BUN [B6] Creatinine [B6] K [B6]
- 4/13/2017 *pDVM Bloodwork:* BUN [B6] Creatinine [B6] K [B6]
- 4/13/2017 *pDVM Urinalysis:* specific gravity [B6] pH [B6] Protein [B6]
- [B6] [B6] *Bloodwork:* BUN [B6] Creat [B6] Potassium [B6]
- [B6] [B6] *Radiographs:* progressive enlargement of the right heart is suspected, which could be secondary to the congenital cardiac defect. There is no evidence of congestive heart failure at this time.
- [B6] [B6] *Echocardiogram:* dilated cardiomyopathy, [B6] and does not impact any volume load on the left heart

Cardiovascular Examination:

Auscultation: Grade 4-5/6 coarse ejection quality murmur at the left heart base with a grade 4-5/6 holosystolic murmur more blowing quality at the right and coarser. Heart rate 128bpm with a normal rhythm. Lungs clear.

Thrill: faint right

PMI: right

Femoral Artery: good bilaterally, symmetrical synchronous

Other Physical Exam Findings: BAR

Release Notes:

1. [B6] murmur is the same in intensity and quality on today's physical examination as previously noted.
2. The echocardiogram reveals fairly stable left ventricular and left atrial sizes with decreased myocardial function as previously mentioned. There is no improvement in any indice.
5. Please continue to track the sleeping respiratory rates and call with any questions or concerns.

Medications upon Discharge:

Please continue the following medications (please note any changes):

[B6]

rDVM prescribed medications:

[B6]

Please contact your primary veterinarian or [B6] for refills. When calling for medication refills, please provide 48 hours notice to allow the Cardiology Department time to review your records. We are in the office Monday through Friday 8am – 6pm. Medications are not filled during appointment hours while we are caring for our patients. Thank you for your consideration.

[B6]

Recheck Recommendations:

Recheck blood work every 4 months

Recheck radiographs every 4 months

Recheck echocardiogram in 8 months

For your convenience, you may schedule any follow-up tests (other than an echocardiogram) either here as a cardiology nurse appointment or with your regular veterinarian. If you choose to have your radiographs taken by your regular veterinarian, there will be a small consultation fee for the cardiologist to evaluate those radiographs and make treatment recommendations. The consultation will be shared with both you and your regular veterinarian to assure the best care possible for your pet.

Attending Veterinarian:

B6

B6 VMD, DACVIM (Cardiology), Chief of Cardiology

Thank you for allowing the **B6** to participate in the care of **B6**. If you have any questions or concerns regarding the treatments or recommendations for **B6** please call **B6**. The **B6** is open 24 hours each day for the care and treatment of your pet.

Client: **B6** Patient: **B6** Page: 3

B6

B6

| Patient | | Client | |
|---|------------------------------|-----------|--|
| B6 Male, Canine Breed: Retriever, Golden (Gold) Age: B6 | | B6 | |
| B6 Doctor: B6 VMD, DACVIM (Cardiology), Chief of Cardiology Location: B6 | pDVM: Hospital: B6 | | |

Diagnosis:

B6 Dilated Cardiomyopathy

Weight:

| | B6 | B6 |
|------------|-------------------------------|---------------------------|
| Vital Sign | 4:07 PM B6 | 11:00 AM B6 |
| Weight | 29.5 kilograms 64.9 pounds | 30 kilograms 66 pounds |

Presenting Concern:

B6 is here for a Cardiology Consultation for a 2nd opinion. He has history of a heart murmur since 8 weeks old and was diagnosed with a **B6** by **B6** DVM, Diplomate ACVIM (Cardiology) on **B6**. **B6** was re-echoed at 1 year of age by **B6** M.S., VMD on **B6** and again at 2 years of age on **B6** Dr. **B6** has suggested the use of **B6** 6.25mg twice a day and client would like a 2nd opinion. **B6** is asymptomatic at home.

History:

Past pertinent history - heart murmur, **B6**

Recent history -

- Coughing/gagging/wheezing: no
- Breathing changes: no effort is noted at home
- Sleeping RR: NOT tracking
- Sleep quality: normal
- Exercise intolerance: maintains normal activity
- Appetite: normal
- V/D/U/BM: normal
- Fainting/Episodes: no
- Owner's concerns: when to start Pimobendan
- Diet: Acana kibble
- Heartworm test: negative
- Heartworm preventative: Interceptor
- Vaccine status: Rabies - current

Medications Upon Presentation:

B6

B6

Client: **B6**

Patient: **B6**

B6

Previous Diagnostics:

| | | | | | |
|----|----------------|----|-------|----|-----------------------------------|
| B6 | Echocardiogram | B6 | , LLC | B6 | DVM, Diplomate ACVIM (Cardiology) |
| B6 | Echocardiogram | B6 | | B6 | MS, VMD |
| B6 | Echocardiogram | | | | MS, VMD |

4/8/16 rDVM BW: CBC - WNL, UA- WNL, Heartworm- neg, CHEM - BUN B6 Creat B6 K B6

Cardiovascular Examination:

Auscultation: Grade 4/6 coarse holosystolic murmur at the left heart base with a grade 4-5/6 holosystolic murmur at the right . Heart rate 140bpm with a normal rhythm. Lungs clear.

Thrill: faint right

PMI: left and right

Femoral Artery: good bilaterally, symmetrical synchronous

Other Physical Exam Findings: BAR

Release Notes:

Dilated cardiomyopathy (DCM) is a disease where the heart muscle becomes weak and has difficulty contracting to pump blood out of the heart throughout the body. Because of this weakening, the heart chambers become enlarged, one or more heart valves may leak, and signs of congestive heart failure (fluid in the lungs) may develop. This disease most commonly affects large breed dogs; however, it has been documented in smaller breed dogs such as Cocker Spaniels. The cause of dilated cardiomyopathy is unknown; however, given the prevalence in of this disease in certain breeds we suspect a genetic basis for this disease. Occasionally, DCM-like heart muscle dysfunction develops secondary to identifiable causes such as toxins or an infection.

Early in the disease process there may be no clinical signs detectable. In some cases, a soft heart murmur, other abnormal heart sounds, and/or an irregular heart rhythm may be detected by your veterinarian on physical examination. Such findings are more likely as the disease progresses. The presence of heart muscle weakness and ventricular arrhythmias may result in weakness or lethargy, exercise intolerance, or fainting episodes (syncope). Unfortunately, these dogs are at risk of sudden death. As the heart's pumping ability worsens, the heart enlarges and pressure builds up within the heart. When the heart is unable to compensate for the disease further, fluid may accumulate in the lungs (pulmonary edema), in the chest cavity (pleural effusion), or in the abdomen (ascites). These are signs of congestive heart failure. The presence of fluid in these areas can cause difficulty breathing or coughing.

Monitoring your pet's **sleeping respiratory rate** is recommended. The sleeping respiratory rate (SRR) is a subtle and sensitive indicator of changes in your pet's condition. Monitoring of the sleeping respiratory is recommended as increasing trends may suggest the development of congestive heart failure. Normal sleeping respiratory rates are less than 30 breaths per minute. When your pet is sleeping soundly, they may take as few as 18 or 20 breaths per minute which is completely normal. Increases in respiratory rate and effort while sleeping should be reported immediately.

How to count the respiratory rate: Count the respiratory rate by watching your pet's chest go up and down (each up and down is one breath cycle). Using a clock or a watch with a second hand, count the number of breaths over 15 seconds and multiply by 4 to get the respirator rate for one minute. Counting the sleeping respiratory rate means you simply count the respiratory rate when your pet is sound asleep. We recommend that you track these rates for your pet's entire life as they may help identify early concerns.

If your pet has an elevated sleeping respiratory rate, please count sleeping respiratory rates multiple times throughout the day and call us with an update.

Please report back to me in 3-5 days with your pet's initial sleeping respiratory rates so that we can obtain a baseline. Record each day's sleeping respiratory rate in a log so we can track any changes.

To download an application for tracking sleeping respiratory rates, please visit www.yourdogsheart.com and follow the link at the bottom of the page for the "Resting Respiratory Rate".

B6

Client: B6

Patient: B6

Page: 2

Medications upon Discharge:

Please note the addition of the following new medications:

B6

rDVM prescribed medications:

B6

Please contact your primary veterinarian or **B6** for refills. When calling for medication refills, please provide 48 hours notice to allow the Cardiology Department time to review your records. We are in the office Monday through Friday 8am – 6pm. Medications are not filled during appointment hours while we are caring for our patients. Thank you for your consideration.

Recheck Recommendations:

Recheck blood work in 7 to 10 days after starting medication, and then again in 4 months

Baseline chest radiographs should be done with the recheck bloodwork

Recheck echocardiogram in 4 months

For your convenience, you may schedule any follow-up tests (other than an echocardiogram) either here as a cardiology nurse appointment or with your regular veterinarian. If you choose to have your radiographs taken by your regular veterinarian, there will be a small consultation fee for the cardiologist to evaluate those radiographs and make treatment recommendations. The consultation will be shared with both you and your regular veterinarian to assure the best care possible for your pet.

Attending Veterinarian:

B6

B6 VMD, DACVIM (Cardiology), Chief of Cardiology

Thank you for allowing the **B6** to participate in the care of **B6**. If you have any questions or concerns regarding the treatments or recommendations for **B6** please call **B6**. The **B6** is open 24 hours each day for the care and treatment of your pet.

B6

Client: **B6**

Patient: **B6**

B6

| Patient | | Client | |
|---|-----------------------|--------|--|
| B6 Male, Canine Breed: Retriever, Golden, (Gold) Age: B6 | | B6 | |
| B6 Doctor: B6, VMD, DACVIM (Cardiology), Chief of Cardiology | pDVM: Hospital: B6 | | |
| Location: B6 | | | |

Vital Signs:

| Vital Sign | B6 | |
|------------|---------------------------|---------------------------|
| | 11:00 AM | 2:04 PM |
| Weight | 30 kilograms 66 pounds | 30 kilograms 66 pounds |
| Temp | | 101.2 |
| HR | | 138 |
| RE | | Normal panting |
| CRT | | <2 sec |
| MM | | Pink and Moist |
| Pulse | | strong |

Presenting Concern:

B6 is here today for recheck bloodwork and baseline chest radiographs one week after starting cardiac medication for Dilated Cardiomyopathy (DCM). He is doing well at home and still shows no clinical signs of heart disease. He may be panting and drinking more, however the weather has also gotten warmer and B6 a very active dog.

History:

Past pertinent history: B6 and Dilated Cardiomyopathy

Recent history –

- Coughing/gagging/wheezing: No coughing/gagging/wheezing
- Breathing changes: Maybe more panting
- Sleeping RR: 16 - 20bpm; difficult to obtain true *sleeping* rates, and at rest the numbers vary
- Sleep quality: Sleeps well, typically only sleeps at night
- Exercise intolerance: No intolerance noted - is very active and energetic
- Appetite: Eating well
- V/D/U/BM: Stool is soft, otherwise normal eliminations
- Fainting/Episodes: No episodes reported
- Owner's concerns: Supplements and cardiac function (numerical values on echocardiogram) - see owner's notes
- Diet: Acana (dry)
- Heartworm test: Tested negative with pDVM
- Heartworm preventative: Interceptor
- Vaccine status: Current with vaccinations

Medications Upon Presentation:

B6

B6

Client: B6

Patient: B6

Page: 1

Previous Diagnostics:

- **B6** Echocardiogram **B6** Dilated cardiomyopathy; **B6**
- pDVM Bloodwork (4/8/16): BUN: **B6** Creatinine: **B6** Potassium: **B6**

Radiographic Interpretation: Cardiomegaly (VHS **B6** - normal VHS in dogs is 10.5). Mild left atrial enlargement. Cranial and caudal vessels are normal in size. Very diffuse bronchointerstitial pattern.

B6 **Diagnostics:**

| Test | Result | Reference Range |
|-----------|-----------|-----------------|
| ALB | B6 | 2.5 - 4.0 |
| ALB/GLOB | | |
| ALKP | | 0 - 140 |
| ALT | | 0 - 120 |
| BUN | | 9.0 - 29.0 |
| BUN/Creat | | |
| Ca | | 9.0 - 12.2 |
| CHOL | | 120 - 310 |
| CORR Ca | | 9.0 - 12.2 |
| CREA | | 0.4 - 1.4 |
| GGT | | 0 - 14 |
| GLOB | | 2.0 - 3.6 |
| GLU | | 75 - 125 |
| PHOS | | 1.9 - 5.0 |
| TBIL | | 0.0 - 0.5 |
| TP | | 5.5 - 7.6 |
| Chloride | | 102 - 120 |
| Na/K | | |
| Potassium | 3.8 - 5.3 | |
| Sodium | 141 - 152 | |

Lab Comments: Species: Dog AnalyzerType: DriChem AnalyzerName: DRI-CHEM_1

*Corrected Calcium is only valid for dogs which are greater than 6 months old

Release Notes:

- 1- **B6** blood work today showed normal renal values, liver values, and electrolytes.
- 2- **B6** reviewed **B6** radiographs and saw cardiomegaly (enlarged heart). The radiographs will also be read by one of our radiologists, and we will follow up with you concerning any abnormalities or concerns.
- 3- In regards to the Nordic Naturals Omega 3, in order to get the appropriate total dose of EPA and DHA, **B6** would need 8 soft gels daily. If you feel this is too much to administer, you may want to consider purchasing the liquid pump, which is applied to food. We have also given you a hand out on fish oil to help you calculate the proper dose for **B6** weight (40mg/kg of EPA and 25mg/kg of DHA with **B6** weighing 30kg).
- 4- There is not much literature on the use of Standard Process Cardiac Support nor Cardio-Plus. After reading a review from a veterinary nutritionist, there is concern about allergies, especially with Golden Retrievers. These supplements do have a lot of wheat products in them, which many Goldens cannot tolerate; additionally, there have been no studies done on the use of these supplements and the onset of congestive heart failure.
- 5- Please continue to monitor the sleeping respiratory rates on a daily basis and call us with any upward trend or rates over 30 breaths per minute.
- 6- Please monitor for the development of coughing/gagging, exercise intolerance, inappetance, etc.

B6

Client: **B6**

Patient: **B6**

7- We will continue medications as prescribed below. We will follow up with you if **B6** has any changes or recommendations for the treatment plan.

Q & A from **B6**

B6

B6

Client: **B6**

Patient: **B6**

Page: 3

B6

Medications upon Discharge:

Please continue the following medications:

B6

rDVM prescribed medications:

B6

When calling for medication refills, please provide 48 hours notice to allow the Cardiology Department time to review your records. We are in the office Monday through Friday 8am – 6pm. Your refills can be called in to the pharmacy of your choice or filled at **B6**. Medications are not filled during appointment hours while we are caring for our patients. Thank you for your consideration.

Recheck Recommendations:

Recheck blood work in 4 months

Recheck radiographs in 4 months

Recheck echocardiogram in 4 months

For your convenience, you may schedule any follow-up tests (other than an echocardiogram) either here as a cardiology nurse appointment or with your regular veterinarian. If you choose to have your radiographs taken by your regular veterinarian, there will be a small consultation fee for the cardiologist to evaluate those radiographs and make treatment recommendations. The consultation will be shared with both you and your regular veterinarian to assure the best care possible for your pet.

B6 care was provided by **B6** CVT on behalf of **B6**

Attending Veterinarian:

B6

B6

Client: **B6**

Patient: **B6**

Page: 4

B6

VMD, DACVIM (Cardiology), Chief of Cardiology

Thank you for allowing the **B6** to participate in the care of **B6**. If you have any questions or concerns regarding the treatments or recommendations for **B6**, please call **B6**. The **B6** is open 24 hours each day for the care and treatment of your pet.

B6

Client: **B6**

Patient: **B6**

Page: 5

B6

| Patient | | Client | |
|--|---------------------------|--------------------|----|
| B6 Male, Canine Breed: Retriever, Golden (Gold) Age: B6 | | B6 | |
| B6 Doctor: B6 Chief of Cardiology Location: B6 | VMD, DACVIM (Cardiology), | pDVM: Hospital: | B6 |

Diagnosis:

B6

Dilated Cardiomyopathy (secondary to volume overload) ---Stable on the current medications

Weight:

| Vital Sign | B6 | B6 |
|------------|---------------------------|-----------------------------|
| 2:04 PM | | 12:15 PM |
| Weight | 30 kilograms 66 pounds | 30.4 kilograms 67 pounds |

Presenting Concern:

B6 is here for a recheck Echocardiogram, radiographs and blood work. He is doing well at home with no clinical signs. He does pant frequently as he is very active. His respiratory rates are normal at rest.

History:

Past pertinent history - B6 Dilated Cardiomyopathy

Recent history -

- Coughing/gagging/wheezing: no
- Breathing changes: no
- Sleeping RR: 16, 24, 28 breaths per minute (some sleeping / some at rest), pants frequently - very active
- Sleep quality: normal
- Exercise intolerance: no
- Appetite: normal
- V/D/U/BM: no
- Fainting/Episodes: no
- Diet: Orijen - freeze dried, Acana - dry
- Heartworm test: yes
- Heartworm preventative: Interceptor every 45 days
- Vaccine status: current

Medications Upon Presentation:

B6

B6

Client: B6

Patient: B6

Page: 1

Previous Diagnostics:

- **B6** **B6** *Radiographs:* 1. There is generalized cardiomegaly, a large proportion of which is likely right-sided, consistent with the historical septal defect and cardiomyopathy. There is no evidence of cardiac decompensation at this time. This report was created using dictation software and, as a result, minor typographical and grammatical errors can occur and may be confusing or misleading. Please do not hesitate to contact me about any such errors that may have occurred in this report.
- **B6** **B6** *Bloodwork:* BUN **B6** Creat **B6** Potassium **B6** *Echocardiogram:* Dilated cardiomyopathy **B6** and does not impact any volume load on the left heart

Cardiovascular Examination:

Auscultation: Grade 4-5/6 coarse ejection quality murmur at the left heart base with a grade 4-5/6 holosystolic murmur more blowing quality at the right . Heart rate 140bpm with a normal rhythm. Lungs clear.

Thrill: faint right

PMI: left and right

Femoral Artery: good bilaterally, symmetrical synchronous

Other Physical Exam Findings: BAR

Radiographic Interpretation:

Cardiomegaly (VHS 12.0), globoid and primarily right sided. Normal vessels cranially and caudally. Exhalation films confound the parenchymal changes.

B6 **Diagnostics:**

| Date/Time | Test | Result | Reference Range |
|-----------|-----------|-----------|-----------------|
| 9/19/2016 | ALB | B6 | 2.5 - 4.0 |
| 9/19/2016 | ALB/GLOB | | |
| 9/19/2016 | ALKP | | 0 - 140 |
| 9/19/2016 | ALT | | 0 - 120 |
| 9/19/2016 | BUN | | 9.0 - 29.0 |
| 9/19/2016 | BUN/Creat | | |
| 9/19/2016 | Ca | | 9.0 - 12.2 |
| 9/19/2016 | Chloride | | 102 - 120 |
| 9/19/2016 | CHOL | | 120 - 310 |
| 9/19/2016 | CREA | | 0.4 - 1.4 |
| 9/19/2016 | GGT | | 0 - 14 |
| 9/19/2016 | GLOB | | 2.0 - 3.6 |
| 9/19/2016 | GLU | | 75 - 125 |
| 9/19/2016 | Na/K | | |
| 9/19/2016 | PHOS | | 1.9 - 5.0 |
| 9/19/2016 | Potassium | | 3.8 - 5.3 |
| 9/19/2016 | Sodium | | 141 - 152 |
| 9/19/2016 | TBIL | | 0.0 - 0.5 |
| 9/19/2016 | TP | | 5.5 - 7.6 |

Lab Comments:

Species: Dog AnalyzerType: DriChem AnalyzerName: DRI-CHEM_1

B6

Client **B6**

Patient **B6**

Release Notes:

1. **B6** murmur is the same in intensity and quality on today's physical examination as previously noted.
2. The chest radiographs are stable with no sign of congestive heart failure.
3. **B6** blood work is normal in terms of kidney function and electrolytes.
4. The echocardiogram reveals a stable left ventricular and left atrial size no change in the **B6**
4. Please continue to track the sleeping respiratory rates and call with any questions or concerns

Medications upon Discharge:

Please continue the following medications (please note any changes):

B6

rDVM prescribed medications:

B6

Please contact your primary veterinarian or **B6** for refills. When calling for medication refills, please provide 48 hours notice to allow the Cardiology Department time to review your records. We are in the office Monday through Friday 8am – 6pm. Medications are not filled during appointment hours while we are caring for our patients. Thank you for your consideration.

Recheck Recommendations:

Recheck blood work in 6 months

Recheck radiographs in 6 months

Recheck echocardiogram in 10 months, sooner if any problems

For your convenience, you may schedule any follow-up tests (other than an echocardiogram) either here as a cardiology nurse appointment or with your regular veterinarian. If you choose to have your radiographs taken by your regular veterinarian, there will be a small consultation fee for the cardiologist to evaluate those radiographs and make treatment recommendations. The consultation will be shared with both you and your regular veterinarian to assure the best care possible for your pet.

B6

Client: **B6**

Patient: **B6**

Page: 3

Attending Veterinarian:

B6

B6

VMD, DACVIM (Cardiology), Chief of Cardiology

Thank you for allowing the **B6** to participate in the care of **B6**. If you have any questions or concerns regarding the treatments or recommendations for **B6**, please call **B6**. The **B6** is open 24 hours each day for the care and treatment of your pet.

B6

Client: **B6**

Patient: **B6**

Page: 4

B6

Patient Demographics

| | | |
|-----------------------|------------------------|----------|
| B6 | Study Date: 08/22/2018 | |
| Patient ID: B6 | Gender: M | Wt: 29kg |
| DOB: B6 | | |
| Comments: GLDR | | |

Adult Echo: Measurements and Calculations

2D

| LA Dimen (2D) | LA/Ao (2D) | AoR Diam (2D) |
|---------------|----------------|---------------|
| B6 | B6 | B6 |
| MMode | | |
| IVSd (MM) | EDV (MM-Teich) | LA Dimen (MM) |
| LVIDd (MM) | ESV (MM-Teich) | AoR Diam (MM) |
| LVPWd (MM) | SV (MM-Teich) | LA/Ao (MM) |
| IVSs (MM) | FS (MM-Teich) | MV EPSS |
| LVIDs (MM) | EF (MM-Teich) | |
| LVPWs (MM) | IVS % (MM) | |

Doppler

| | | |
|---|---------------------------|-----------|
| LVOT Vmax Max PG Vmax | MVA (P _{1/2} t) | MV E/A |
| B6 | B6 | B6 |
| MV P _{1/2} t P _{1/2} t | MV Peak E Ve Vel PG | |
| MV Dec Slope Slope | MV Peak A Ve Vel PG | |

Comments

Dilated Cardiomyopathy--improvement Technically challenging study as pet is frantically panting which confounds accurate assessment of heart function

- Marked improvement in the left ventricular chamber dimensions
- Improved LVIDS as well as an increased ESV
- Improved EPSS
- Left atrial enlargement
- Annular dilation with secondary mitral regurgitation
- Cannot assess the **B6** as patient is panting, anxious and uncooperative

This document has been electronically signed by: **B6**, VMD, DACVIM (Cardiology)

PL 21336
WB 21337

Amino Acid Laboratory Sample Submission Form

9-10-18

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: VMD

Clinic/Company Name:

Address:

Email:

Telephone:

Fax: ← SEND RESULTS TO OWNER

Billing Contact:

Email: ←

Billing Contact Phone:

Tax ID: _____ PLEASE BILL OWNER:

Patient Name:

Species: Dog

Breed: Golden Retriever

Owner's Name:

Current Diet : The Real Meat Company- Beef

Sample type: Plasma Whole Blood Urine Food Other _____

Test: Taurine Complete Amino Acids Other: _____

Taurine Results (lab use only)

Plasma: Whole Blood: 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.

B6

****REVISED VERSION****

| Patient | | Client | |
|--|---------------------------|-----------|----|
| B6 Male, Canine Breed: Retriever, Golden (Gold) Age: B6 | | B6 | |
| B6 Doctor: B6 Chief of Cardiology | VMD, DACVIM (Cardiology), | pDVM: | B6 |
| Location: B6 | | Hospital: | |

Diagnosis:

B6, Dilated Cardiomyopathy ----improvement on the current therapy

Weight:

| | B6 | | |
|------------|----------------|--------------------------------|--------------|
| Vital Sign | 12:26 PM | 12:47 PM | 11:16 AM |
| Weight | 32.8 kilograms | 30.9 kilograms 67.98 pounds | 29 kilograms |

Presenting Concern:

B6 is here today for radiographs and an echocardiogram. His owner reports that he is doing well at home. He is not showing any cardiac symptoms. He is having a Taurine level checked through her pDVM and sent to Dr. Stern (UC Davis)

History:

Past pertinent history - B6 Dilated Cardiomyopathy

Recent history -

- Coughing/gagging/wheezing: no
- Breathing changes: none
- Sleeping RR: 12-28
- Sleep quality: normal
- Exercise intolerance: none
- Appetite: good
- V/D/U/BM: none
- Fainting/Episodes: none
- **Diet: The Real Meat Company ,90% beef, "air dried" No legumes, Grain free, No potatoes**
- Grain Free: YES
- Heartworm test: May 2018
- Heartworm preventative: Interceptor

Medications Upon Presentation:

B6

Client: B6 Patient: B6 Page: 1

B6

Previous Diagnostics:

- 4/19/18 pDVM Taurine level [B6] (prior to Taurine supplementation)
- 5/11/18 pDVM bloodwork: Creat [B6] K [B6] BUN [B6]
- [B6] [B6] radiographs: 1. Static mild generalized cardiomegaly with evidence of right-sided hypertrophy secondary to the reported [B6] and dilated cardiomyopathy. There is no radiographic evidence of left-sided cardiac decompensation. 2. Otherwise radiographically normal and unchanged thorax.
- [B6] [B6] echocardiogram: dilated cardiomyopathy—fairly stable, ventricular septal defect
- [B6] [B6] blood work: BUN [B6] Creat [B6] Potassium [B6]
- [B6] [B6] echocardiogram: dilated cardiomyopathy—fairly stable, [B6]

Cardiovascular Examination:

Auscultation: Grade 4/6 coarse ejection quality murmur at the left heart base with a grade 5/6 holosystolic murmur more blowing quality at the right and coarser. Heart rate 150bpm with a normal rhythm. Lungs clear.

Thrill: faint right

PMI: right

Femoral Artery: good bilaterally, symmetrical synchronous

Other Physical Exam Findings: BAR, panting frantically, very anxious

Radiographic Interpretation:

Cardiomegaly (VHS 11.6) with left atrial enlargement, evidence of right-sided enlargement and a prominent main pulmonary artery on the DV. There is no radiographic evidence of left-sided cardiac decompensation.

Release Notes:

1. The echo parameters are improved and the radiographs, although they show heart enlargement, reveal no evidence of congestive heart failure. The function of the heart was difficult too assess as [B6] was very anxious today and was panting very hard throughout the echogram.

2. Dr. Stern is handling [B6] Taurine levels. Please discuss the mega dosed supplementation with him so there are no conflicting opinions and recommendations. Please make certain he has approved the current diet if he has any diet recommendations.

3. There have been some nutritionists that do not recommend mega dosing Taurine (I do not usually recommend doses this high) as this may have other consequences. Pease discuss all of this with Dr. Stern as he is the leading researcher in the investigation into diet related DCM in Golden Retrievers and the potential for Taurine responsive disease.

4. If Dr. Stern feels he would like to follow [B6] as we wean the cardiac medications, please let us know, Until [B6] plasma Taurine are normal (if that occurs), I am not inclined to take him off his current cardiac current medications.

5. Dr. Stern is welcome to contact me any time at the contact information above. I have forwarded today's information to Dr. Stern for his review.

Medications upon Discharge:

Please continue the following medications (please note any changes):

B6

B6

Supplements

B6

rDVM prescribed medications:

B6

Please contact your primary veterinarian or **B6** for refills. When calling for medication refills, please provide 48 hours notice to allow the Cardiology Department time to review your records. We are in the office Monday through Thursday 8am – 5pm to receive refill requests however, medications are not filled during appointment hours while we are caring for our patients. Please keep in mind we are not a dispensing pharmacy and have no pharmacist on staff. Thank you for your consideration.

Recheck Recommendations:

Recheck blood work- obtain a Taurine level sent to UC Davis (whole blood and plasma as **B6** has been diagnosed with DCM) and it has been 4 months since the baseline

Recheck radiographs in 4 months

Recheck echocardiogram in 4 months, sooner if Dr. Stern would want to begin to wean the medical therapy implemented for the DCM **B6**

For your convenience, you may schedule any follow-up tests (other than an echocardiogram) either here as a cardiology nurse appointment or with your regular veterinarian. If you choose to have your radiographs taken by your regular veterinarian, there will be a small consultation fee for the cardiologist to evaluate those radiographs and make treatment recommendations. The consultation will be shared with both you and your regular veterinarian to assure the best care possible for your pet.

Attending Veterinarian:

B6

B6, VMD, DACVIM (Cardiology), Chief of Cardiology

Thank you for allowing the **B6** to participate in the care of **B6**. If you have any questions or concerns regarding the treatments or recommendations for **B6**, please call **B6**. The **B6** is open 24 hours each day for the care and treatment of your pet.

B6

B6

PATIENT INFORMATION

| | | | | |
|---|--------------------------------|-----------------------------------|----------------|---------------|
| Patient: B6 | Exam Date: 08/29/2017 | Previous Study: 04/19/2016 | | |
| Species: Canine | Breed: Golden Retriever | Weight: 32.8 kg | DOB: B6 | Sex: M |
| Reason for Study: Re check evaluation. | | Referring Veterinarian: B6 | | |

| 2D Measurements | |
|---------------------|-----------|
| LA SAX | B6 |
| Ao DIA SAX | |
| LA SAX : Ao DIA SAX | |
| IVSd | |
| LVIDd | |
| LVPWd | |
| | |

| M-Mode Measurements | |
|---------------------|-----------|
| IVSd | B6 |
| LVIDd | |
| LVPWd | |
| IVSs | |
| LVIDs | |
| LVPWs | |
| % FS | |
| EPSS | |
| EDV | |
| ESV | |
| % EF | |

| Doppler Measurements: | |
|------------------------|-----------|
| Mitral Valve | B6 |
| MR V Max | |
| MR Max PG | |
| Tricuspid Valve | |
| TR V Max | |
| TR Max PG | |
| RA Press | |
| Aortic Valve | |
| Peak Velocity | |
| Max PG | |
| AI End Dias Vel | |
| LVOT Velocity | |
| LVOT PG | |
| Pulmonic Valve | |
| Peak Velocity | |
| Max PG | |

| Doppler Qualitative: | |
|---------------------------------|-------|
| Mitral Regurgitation: | Mild |
| Tricuspid Regurgitation: | Trace |
| Aortic Regurgitation: | Mild |

B6

B6

B6

Patient: **B6**
Patient ID #: **B6**
Exam Date: 08/29/2017

ECHOCARDIOGRAPHIC FINDINGS

Thin walled, dilated left ventricular chamber with poor wall motion.
Increased LVIDs (**B6**) as well as an increased ESV (**B6** ml), %FS (**B6**%).
Increased EPSS (**B6**)
Left atrial enlargement.
Annular dilation with secondary mitral and tricuspid regurgitation.
Trivial tricuspid regurgitation with PFV revealing normal pulmonary pressures
There is flow across the septum beneath the aortic valve and into the RV with some prolapse of the aortic cusp with secondary aortic insufficiency.
The VSD flow is **B6** n/s L>R (**B6** mmHg).

DIAGNOSIS

Dilated Cardiomyopathy--fairly stable

B6

B6

Electronically Signed: **B6**, VMD, DACVIM 8/29/2017 1:10 PM

B6

B6

B6

B6

Date : 9/11/2018

Owner: **B6**

Patient: **B6** (Golden Retriever 7 year old Intact)

ECG: HR 130/minute, sinus rhythm

Doppler: Trace (very mild) **B6** (age related)

Echocardiogram:

Contractility (Fractional Shortening) - 45% Good

LVIDs - 18mm (Apical Area)

LVIDd - 33mm

LVPW thickness s - 15mm

LVPW thickness d - 12mm

Interventricular septal thickness s- 15mm

Interventricular septal thickness d -12mm

Left Atrium - **B6**mm

Aortic: Left atrial ratio - 1:1

Mitral valve - mild thickening

Right Ventricle - NR

Therapeutic guidelines: No cardiac drug therapy required at this time

Recommendations:

Assessment :

No evidence of Dilated Cardiomyopathy or other clinically significant valvular disease at this time

Cardiology Recheck : 1 Year - To asses for **B6**

ST 80-81

Sample Submission Form

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

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

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

Vet/Tech Contact: VMD
Company Name:
Address:

Email:
Tel: Fax:

Billing Contact: TAX ID:
Email: Tel:

Patient Name:
Species: dog
Owner's Name:
Sample Type: Plasma Whole Blood Urine Food Other: _____
Test Items: Taurine Complete Amino Acid Other: _____

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

Reference Ranges (nmol/ml)

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

From: Rotstein, David </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0A3B17EBFCF14A6CB8E94F322906BADD-DROTSTEI>
To: Carey, Lauren; Jones, Jennifer L; Glover, Mark; Ceric, Olgica; Nemser, Sarah; Queen, Jackie L; Palmer, Lee Anne
Sent: 4/23/2018 2:00:54 PM
Subject: RE: should be a PFR--DCM case-FW: EON-351747 RFR Event: Unclear if this is info on Blue Buffalo or something else

Thank you!

From: Carey, Lauren <Lauren.Carey@fda.hhs.gov>
Date: April 23, 2018 at 9:59:54 AM EDT
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>, Rotstein, David <David.Rotstein@fda.hhs.gov>, Glover, Mark <Mark.Glover@fda.hhs.gov>, Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>, Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>, Queen, Jackie L <Jackie.Queen@fda.hhs.gov>, Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>
Subject: RE: should be a PFR--DCM case-FW: EON-351747 RFR Event: Unclear if this is info on Blue Buffalo or something else

I'll create a PFR for our tracking.

From: Jones, Jennifer L
Sent: Monday, April 23, 2018 8:54 AM
To: Rotstein, David <David.Rotstein@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>; Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>
Subject: RE: should be a PFR--DCM case-FW: EON-351747 RFR Event: Unclear if this is info on Blue Buffalo or something else

I was not expecting this report.

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



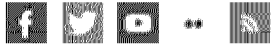
From: Rotstein, David
Sent: Monday, April 23, 2018 7:05 AM
To: Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>
Subject: RE: should be a PFR--DCM case-FW: EON-351747 RFR Event: Unclear if this is info on Blue Buffalo or something else

Lauren,

I am not aware of any follow-up. Jen-were you expecting this one? If not, creating PFR would be great.

dave

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



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From: Carey, Lauren
Sent: Monday, April 23, 2018 6:02 AM
To: Rotstein, David <David.Rotstein@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>
Subject: RE: should be a PFR--DCM case-FW: EON-351747 RFR Event: Unclear if this is info on Blue Buffalo or something else

Do I need to transition this into a PFR or are we expecting a follow-up PFR report for it?

From: Rotstein, David
Sent: Friday, April 20, 2018 3:55 PM
To: Glover, Mark <Mark.Glover@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>
Cc: Rotstein, David <David.Rotstein@fda.hhs.gov>
Subject: should be a PFR--DCM case-FW: EON-351747 RFR Event: Unclear if this is info on Blue Buffalo or something else

DCM case. This should be a PFR.

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



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From: RFR Event [<mailto:rfriventcreation@fda.hhs.gov>]

Sent: Friday, April 20, 2018 3:53 PM

To: Lambkin, Sonya <Sonya.Lambkin@fda.hhs.gov>; orahqreportablefoodnotificationtriagegroup@fda.hhs.gov; Bataller, Neal <Neal.Bataller@fda.hhs.gov>; Johnston, Ying F <Ying.Johnston@fda.hhs.gov>; Edwards, Elizabeth <Elizabeth.Edwards@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>; Yowell, Ruth <Ruth.Yowell@fda.hhs.gov>; ORA HAF EAST1 Reportable Food Notification <orahafeast1reportablefoodnotification@fda.hhs.gov>; Krieger, Darlene <Darlene.Krieger@fda.hhs.gov>; CFSAN Reportable Food Registry <CFSANReportableFoodRegistry@fda.hhs.gov>; FDA Emergency Operations <emergency.operations@fda.hhs.gov>; Cleary, Michael * <Michael.Cleary@fda.hhs.gov>; Weems, Shellie * <Shellie.Weems@fda.hhs.gov>; Hodges, April <April.Hodges@fda.hhs.gov>; ORA OEIO RECALLS Branch <oraoeiorecallsbranch@fda.hhs.gov>; Nelson, Eric <Eric.Nelson@fda.hhs.gov>; McCoig, Amber <Amber.McCoig@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>; [REDACTED] **B6**

Subject: EON-351747 RFR Event: Unclear if this is info on Blue Buffalo or something else

A RFR Report has been received and RFR Event [EON-351747] has been created in the EON System under ICSR # 2046176.

Reason this food is reportable: Other

Please describe Other: Taurine deficiency or other diet-related DCM

Product Name: Blue Buffalo Basics salmon and potato dry food - regular and grain-fr...

| Type of Site: | Sender | Food Facility Site |
|-------------------------|--|---|
| FDA Districts Impacted: | NWE | NWE |
| Organization Name: | Tufts Cummings School of Veterinary Medicine | Unclear if this is info on Blue Buffalo or something else |
| Address: | 200 Westboro Rd North Grafton, MA 01536 United States | ? ?, MA ? United States |

Discovery Date: 2018-04-19

Product Group: Pet Food

Description: 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 [REDACTED] nmol/ml. Started on cardiac medications by RDVM and just started taurine and fish oil (may also start [REDACTED]). Unclear if taurine deficiency-related DCM or related to current concerns with "grain free" diets.

Product Recall: No

Human Symptoms Present: No

Animal Symptoms Present: Yes

Animal Symptoms Description: DCM and taurine deficiency Owner has bag of food that she's keeping until we

hear from you. RDVM is [REDACTED] B6

Product Distribution Type: Retail

Root Cause: Unknown

Discovery Code: Other

Submission Type: Initial

Reporting Type: Voluntary

Attachment Name: [REDACTED] B6 records.pdf; [REDACTED] B6 DCM 4-19-18.pdf

EON Key: EON-351747

EON Title: RFR Event created for Blue Buffalo Basics salmon and potato dry food - regular and grain-free; 2046176

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

<https://eon.fda.gov/eon//browse/EON-351747>

To view the RFR Report, please click the link below:

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jspx?decorator=none&e=0&issueType=9&issueId=368135>

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From: Carey, Lauren </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=F0226BD682844FA2B71EA3750D4FCB82-LAUREN.CARE>
To: Jones, Jennifer L; Glover, Mark; Ceric, Olgica; Nemser, Sarah; Queen, Jackie L; Palmer, Lee Anne; Rotstein, David
Sent: 4/23/2018 4:11:05 PM
Subject: FW: Blue Buffalo Basics salmon and potato dry food - regular and grain-free:: Lisa Freeman - EON-351879
Attachments: 2046277-report.pdf; 2046277-attachments.zip

PFR created for the DCM RFR.

From: PFR Event [mailto:pfreventcreation@fda.hhs.gov]
Sent: Monday, April 23, 2018 10:45 AM
To: Cleary, Michael * <Michael.Cleary@fda.hhs.gov>; HQ Pet Food Report Notification <HQPetFoodReportNotification@fda.hhs.gov>; B6
Subject: Blue Buffalo Basics salmon and potato dry food - regular and grain-free:: Lisa Freeman - EON-351879

A PFR Report has been received and PFR Event [EON-351879] has been created in the EON System.

A "PDF" report by name "2046277-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 "2046277-attachments.zip" and is attached to this email notification.

Below is the summary of the report:

EON Key: EON-351879

ICSR #: 2046277

EON Title: PFR Event created for Blue Buffalo Basics salmon and potato dry food - regular and grain-free;; 2046277

| | | | |
|--------------------------|--------------------|---------------------------|---------|
| AE Date | 04/03/2018 | Number Fed/Exposed | 1 |
| Best By Date | | Number Reacted | 1 |
| Animal Species | Dog | Outcome to Date | Unknown |
| Breed | Doberman Pinscher | | |
| Age | 7 Years | | |
| District Involved | PFR-New England DO | | |

Product information

Individual Case Safety Report Number: 2046277

Product Group: Pet Food

Product Name: Blue Buffalo Basics salmon and potato dry food - regular and grain-free:

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 [B6]nmol/ml. Started on cardiac medications by RDVM and just started taurine and fish oil (may also start [B6]). Unclear if taurine deficiency-related DCM or related to current concerns with "grain free" diets. DCM and taurine deficiency Owner has bag of food that she's keeping until we hear from you. RDVM is [B6]

Submission Type: Initial

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

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

Number of Animals Treated With Product: 1

Number of Animals Reacted With Product: 1

| Product Name | Lot Number or ID | Best By Date |
|--|------------------|--------------|
| Blue Buffalo Basics salmon and potato dry food - regular and grain-free: | | |

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-351879>

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=368267>

=====

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Clinical Nutrition Service

Foster Hospital for Small Animals
200 Westboro Road
North Grafton, MA 01536
Phone: (508) 887-4696 Attn: Nutrition Liaison
Fax: 508-887-4363
www.petfoodology.org
vetnutrition@tufts.edu



Nutrition Consultation

Date: 4/19/18

Pet Name: **B6**

Signalment: 7 year old neutered male Doberman Pinscher

Weight: 74.4 pounds (33.8 kg)

Body condition score: 5.5/9, Muscle condition score: mild muscle loss

Relevant health conditions: Dilated cardiomyopathy, **B6** taurine deficiency (whole blood = **B6** nmol/ml), chronic history of **B6**

Referring veterinarian: **B6**

Diet History:

- Current diet: Blue Buffalo Basics (rotates between regular and grain free) salmon and potato dry food (3 cups daily), also adds Merrick dry food (half cup daily during winter when he tends to lose weight), boiled meat and rice during bouts of diarrhea
- Treats: Stewarts freeze dried beef liver treats (approximately 10/day)
- Medications: **B6**
- Supplements: Omega 3 fish oil (Best Vite brand, 160 mg EPA, 100 mg DHA/capsule), just started NOW taurine 1000 mg caps (1 cap/day)
- Medication administration: Natural Balance or Merrick's canned food (varied flavors), occasional Pill Pockets capsule-size grain free

Nutritional Goals

- Complete and balanced diet
- Adequate calorie intake to maintain body weight between 73-77 pounds
- Change to good quality diet with standard protein/grains and made by a well-known reputable company
- Mildly reduced sodium
- Moderate protein
- Consistent diet to reduce risk for bouts of diarrhea (he seems to be sensitive to dietary changes)
- Supplements
 - Taurine - critical
 - Omega-3 fatty acids – likely beneficial
 - L-carnitine – possibly beneficial
 - Coenzyme Q10 – possibly beneficial

Recommendations:

- I'm happy that we were able to talk about **B6** diet to ensure he's getting optimal nutrition. Nutrition is an integral part of the treatment for a dog with heart disease. This is especially important for **B6** because there is some chance of taurine deficiency (or other dietary factors) playing a role in his disease. Either way, the combination of medications, diet, and dietary supplements is important for managing his heart disease.
- As we discussed, there's a lot of misinformation about pet foods so I'll only be recommending diets that meet all the criteria for being of the highest quality and I feel 100% confident about the nutritional levels and quality: <http://vetnutrition.tufts.edu/2016/12/questions-you-should-be-asking-about-your-pets-food/>
- My estimate of **B6** daily calorie needs is approximately 1100 calories per day. This is an initial estimate to keep his ideal weight between 73-77 pounds. However, since every dog is an individual, I'd like you to weigh him in 2 weeks to be sure he's maintaining his weight. If he's losing weight, you should increase the amount of food and continue to weigh him, and if he's gaining weight, you should reduce the amount of food and continue to weigh him. Let me know if you need help adjusting amounts.

- The 4 dry diets I'm recommending are listed below. The starting point for cups/day to feed initially is below but please note that this may need to be adjusted to maintain his ideal weight. The total daily amount should be divided into 2 meals, as you've been doing:

| | Calories/cup | Cups/day |
|--|--------------|----------|
| Royal Canin Early Cardiac (dry)* | 309 | 3 ½ |
| Royal Canin Mobility Support JS (dry)* | 324 | 3 ¼ |
| Royal Canin Boxer (dry) | 335 | 3 |
| Hill's Science Diet Adult Sensitive Stomach & Skin (dry) | 366 | 3 |

*Diets with an asterisk are ones that must be purchased from **B6** or, if not available, from an online pet food store (eg, Chewy.com) with a prescription or approval. The Boxer and the Science Sensitive Stomach and Skin diets are available over-the-counter.

- I would make the diet change first before adding any additional supplements so that we're only making 1 change at a time. My goal is to get him transitioned off the Blue Buffalo as soon as possible but allowing some time to avoid gastrointestinal upset, since **B6** seems to have a somewhat sensitive gastrointestinal tract. As we discussed, you'll need to buy a small bag of the Blue Buffalo for the transition. Start by mixing 25% of the new food with 75% of the Blue Buffalo for 3-4 days. Then mix 50% of the new food and 50% of the Blue Buffalo and feed that until you run out of the Blue Buffalo when you can switch over to the new food completely.

Supplements:

- Unfortunately, there is little regulation of supplements for people or animals (safety, effectiveness, and quality control do not have to be proven for them to be sold), and some of these products may be harmful rather than helpful. Therefore, I am very selective when it comes to recommending specific supplements that have undergone independent quality control testing.
- While we're starting a new diet, continue the taurine and fish oil (you can introduce the new brand of taurine and fish oil below when you're out of the current bottles you have). Once **B6** transitioned over to the new diet, you can start introducing the other supplements if you decide to do so – but only 1 at a time. Allow about 1 week between each new supplement to be sure he's tolerating it.
- Taurine and fish oil: Because of our concern for taurine deficiency and the potential for some benefit from fish oil supplementation in addition to taurine, I think it makes sense to give him both taurine and fish oil. Brands with good quality control are below.
 - Taurine: Go ahead and use up the bottle of NOW brand you have. However, for future purchases, I recommend Solgar, Twinlab, Swanson, and GNC brands. You should continue to give him **1000 mg per day**.
 - Omega-3 fatty acids: Fish oil, which is high in the omega-3 fatty acids, EPA and DHA, can have modest benefits in reducing inflammation, maintaining muscle mass, reducing abnormal heart rhythms, and improving appetite. His dose will depend on the diet you select since the Royal Canin diets already contain quite a bit of fish oil:

| Fish oil brand | If you select any of the Royal Canin diets | If you select the Science Sensitive Stomach diet |
|---|--|--|
| CVS Fish Oil Capsules (1000 mg, with 180 mg EPA and 120 mg DHA per capsule) | 4 capsules/day | 7 capsules/day |
| Solgar Triple Strength Omega-3 950 (504 mg EPA and 378 mg DHA per capsule) | 1 capsule/day | 2 capsules/day |
| Welactin Canine Liquid | ½ scoop/day | 1 ½ scoop/day |

- L-carnitine: L-carnitine can have benefits by providing energy to the heart: Solgar, Country Life, or Jarrow are all good brands. His dose would be **2000 mg twice daily**.
- Co-enzyme Q10. This is the lowest priority of the supplements but has been shown in people with DCM (not dogs) to have some benefits. His dose would be **100 mg twice daily**. Options for brands with independent testing of quality are: Spring Valley (Walmart) CoQ10 100 mg, GNC CoQ-10 100 mg, or CVS Health CoQ-10 100 mg.

- Giving this many supplement pills can be a lot in addition to his medications! The heart medications and taurine are the most important for him. The fish oil is next in priority, with the L-carnitine and coenzyme Q10 being lower priority.

Treats:

- I recommend discontinuing the freeze-dried treats since those are raw and carry risk of bacterial contamination that could contribute to **B6** diarrhea (and put you and **B6** at risk for bacterial contamination). Some good treat options are listed below. Just be sure to avoid giving him more than 50 calories per day from treats. Please wait to introduce the treats until he's transitioned to the new diet and try to keep the treats as consistent as possible, given his sensitive stomach.

| | |
|---|-------------|
| Hill's Science Diet Soft Savories Beef & Cheddar or Chicken & Yogurt treat | 25 calories |
| Hill's Ideal Balance Oven-Baked Naturals with Chicken & Apples treat | 24 calories |
| Hill's Ideal Balance Soft-Baked Naturals with Chicken & Carrots, Duck & Pumpkin, or Beef & Sweet Potato treat | 12 calories |
| Hill's Science Diet Grain Free treat with Chicken & Apples Treat | 9 calories |
| Royal Canin Veterinary Diets Original Dog Treats (can be ordered on Amazon) | 5 calories |

- You can use vegetables or fruits as treats (e.g., carrots, green beans, cucumbers, apples, bananas, oranges). Avoid macadamia nuts, avocado, garlic, onions, grapes, raisins, and other foods known to be toxic to dogs. But, as with the dog treats, be sure to introduce only 1 at a time and try to keep them as consistent as possible.

Medication Administration

- Dog tablet sized Greenies Pill Pockets are relatively low in sodium (avoid Duck and Pea flavor which is high in sodium) but try to limit the total number to 3/day. If you're only using them once in awhile, this could contribute to diarrhea though, so try to keep the pill administration as consistent as possible.
- Other methods of giving pills are below:
 - Low-sodium canned pet food
 - Royal Canin Mature 8+ canned dog food (5.8 oz cans)
 - Hill's Science Diet Adult Chicken and Barley Entrée (13 oz cans)
 - Hill's Science Diet Adult Small & Toy Chicken and Barley Entrée (5.8 oz cans)
 - Mini marshmallows
 - Fruit such as melon or berries (avoid grapes)

Follow Up:

- Please weigh **B6** in 2 weeks to be sure he's maintaining his weight within our goal range of 73-77 pounds. This will help us determine if we need to adjust his food at all.
- Monitor his stool. Keep a diary of when he develops diarrhea or soft stools to see if it coincides with any changes in his diet or with any stressful situations. I'm hoping that a more consistent and easily digestible diet, as well as discontinuing the liver treats will help with his **B6**.
- If he vomits or has reduced appetite, he should be evaluated by **B6** (he may need a digoxin level)
- Continue to monitor for signs of reduced appetite, faster breathing, coughing, or lethargy as these could be signs of congestive heart failure and mean that he needs to be evaluated by **B6**
- Please let me know how things go at **B6** 2-month cardiology recheck. Given his low taurine level, I hope there might be some improvement in his heart function but since he's a Doberman, we don't know if he will improve. However, these dietary changes in combination with the medications he's on give us the best chances.

In the meantime, please contact me if you have any questions about **B6** nutritional plan.

Sincerely,

Lisa M. Freeman, DVM, PhD, DACVN
 Professor, Clinical Nutrition
 508-887-4696 (telephone)
 vetnutrition@tufts.edu (email)
www.petfoodology.org

From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
To: Jones, Jennifer L
Sent: 8/24/2018 7:59:07 PM
Subject: [REDACTED] B6

Hi Jen
We just rechecked [REDACTED] B6 He's a 7 year old Doberman that I reported in April that had a WB taurine of [REDACTED] B6 Owner changed diet and gave taurine supplement and his echo is not normal but significantly improved! Unfortunately, the RDVM measured taurine through [REDACTED] B6 – I'm checking with Josh but I would think that a taurine of [REDACTED] B6 would be low no matter where measured. We submitted another WB taurine today.

We're going to check him again in 3-4 months to see if there's continued improvement but this is definitely not the normal course of Dobie DCM.

The original diet was Blue Buffalo and the owner is still saving the bag if you would like her to submit it. I think she just has the empty bag without food but I'm hoping that would still be useful.

Thanks
Lisa

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

From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
To: Jones, Jennifer L
Sent: 9/3/2018 3:06:44 PM
Subject: FW: Taurine result for patient: **B6**
Attachments: T_20735.pdf

FYI for **B6**
Lisa

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

20735

Sample Submission Form

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

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

B6
B6 pat Race
B6 3:32 PM
SHIP w ICE PACKS, TAURINE
(WHOLE BLOOD)
Lithium Heparin

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

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

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

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

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

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

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

Reference Ranges (nmol/ml)

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

From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
To: Jones, Jennifer L
Sent: 9/10/2018 11:58:34 AM
Subject: RE: Taurine result for patient [B6]

Hi Jen

Yes, she'd be happy to talk to you although she just let me know yesterday that [B6] had surgery for [B6] on [B6] night so you may want to wait a couple days.

Best,
Lisa

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

From: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Sent: Monday, September 10, 2018 7:43 AM
To: Freeman, Lisa <lisa.freeman@tufts.edu>
Subject: RE: Taurine result for patient [B6]

Thanks, Lisa. Is it ok to contact his owner for an interview?

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



From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
Sent: Monday, September 03, 2018 11:07 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: FW: Taurine result for patient [B6]

FYI for [B6]
Lisa

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

From: Peloquin, Sarah </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8607f880df2b494aa639e6d9a3874132-Sarah.Peloq>
To: Jones, Jennifer L; Carey, Lauren; Queen, Jackie L; Palmer, Lee Anne; Rotstein, David
CC: Ceric, Olgica
Sent: 2/11/2019 4:23:18 PM
Subject: RE: 800.267-DCM Cluster-EON-351879- [B6] Freeman-vet-Blue Buffalo Basics salmon and potato dry food - regular and grain-free
Attachments: EON-351879 owner interview 1.30.2019.pdf

Sorry this is delayed, but owner interview is attached.

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

From: Jones, Jennifer L
Sent: Monday, September 10, 2018 7:45 AM
To: Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>
Cc: Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>; 'Reimschuessel, Renate (Renate.Reimschuessel@fda.hhs.gov)' <Renate.Reimschuessel@fda.hhs.gov>
Subject: RE: 800.267-DCM Cluster-EON-351879- [B6] Freeman-vet-Blue Buffalo Basics salmon and potato dry food - regular and grain-free

FYI-Updated Tau-WB [B6] now.

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



From: Jones, Jennifer L
Sent: Wednesday, May 09, 2018 8:37 AM
To: Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>
Cc: Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>; 'Reimschuessel, Renate (Renate.Reimschuessel@fda.hhs.gov)' <Renate.Reimschuessel@fda.hhs.gov>
Subject: RE: 800.267-DCM Cluster-EON-351879- [B6] Freeman-vet-Blue Buffalo Basics salmon and potato dry food - regular and grain-free

MRx summary-part of DCM cluster;

[B6] 7 yr MC Doberman Pinscher Mix

Presenting complaint [B6] vaccines, no concerns à star [B6] à recheck 4/4: [B6]
5x today; [B6]

[B6] 4/19, nutritional consult at Tufts:

PE 4/3: crt 2 sec, arrhythmia-irregularly irregular, short stretches of tachycardia, Gr II/VI murmur, clear lungs & eupneic, mild flank alopecia
-4/4: HR 170, irregularly irregular rhythm, Gr II/VI left apical pansystolic murmur, moderate synchronous pulses

Labs: **4/4 Echo:** moderate DCM (LV > RV), mod LA dilation, Afib

4/4 ECG: Afib

Whole blood Tau: B6 (at some point done)-unclear when

4/19 Nutrition Consult: mild muscle loss, BCS 5.5/9; Current diet-Blue Buffalo Basics-rotate between regular & grain free Salmon & SP dry kibble, adds Merrick dry food (during winter when weight loss), feeds boiled meat and rice during bouts of diarrhea. Stewards freeze dried beef liver treats; takes Omega 3 fish oil, just began B6 takes Rx with Natural balance or Merricks canned food (varied

flavors), occ Pill Pockets-grain free;

Prior Mhx:

B6

B6

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



From: Carey, Lauren

Sent: Monday, April 23, 2018 12:11 PM

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

Subject: FW: Blue Buffalo Basics salmon and potato dry food - regular and grain-free:: Lisa Freeman - EON-351879

PFR created for the DCM RFR.

From: PFR Event [<mailto:pfpreventcreation@fda.hhs.gov>]

Sent: Monday, April 23, 2018 10:45 AM

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

Subject: Blue Buffalo Basics salmon and potato dry food - regular and grain-free:: Lisa Freeman - EON-351879

A PFR Report has been received and PFR Event [EON-351879] has been created in the EON System.

A "PDF" report by name "2046277-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 "2046277-attachments.zip" and is attached to this email notification.

Below is the summary of the report:

EON Key: EON-351879

ICSR #: 2046277

EON Title: PFR Event created for Blue Buffalo Basics salmon and potato dry food - regular and grain-free;; 2046277

| | | | |
|--------------------------|--------------------|---------------------------|---------|
| AE Date | 04/03/2018 | Number Fed/Exposed | 1 |
| Best By Date | | Number Reacted | 1 |
| Animal Species | Dog | Outcome to Date | Unknown |
| Breed | Doberman Pinscher | | |
| Age | 7 Years | | |
| District Involved | PFR-New England DO | | |

Product information

Individual Case Safety Report Number: 2046277

Product Group: Pet Food

Product Name: Blue Buffalo Basics salmon and potato dry food - regular and grain-free:

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 [B6]nmol/ml. Started on cardiac medications by RDVM and just started taurine and fish oil (may also start [B6]). Unclear if taurine deficiency-related DCM or related to current concerns with "grain free" diets. DCM and taurine deficiency Owner has bag of food that she's keeping until we hear from you. RDVM is [B6]

Submission Type: Initial

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

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

Number of Animals Treated With Product: 1

Number of Animals Reacted With Product: 1

| Product Name | Lot Number or ID | Best By Date |
|--|-------------------------|---------------------|
| Blue Buffalo Basics salmon and potato dry food - regular and grain-free: | | |

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-351879>

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

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jspa?decorator=none&e=0&issueType=12&issueId=368267>

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**Follow-up Case Information Uniform Data Entry Form
Vet-LIRN**

Date (mm/dd/yy)

EON/CC Number:

PATIENT INFORMATION

Pet Name

Dog Cat

Breed

Age in years (if < 6 months, put 0.5)

Gender:

M MN F FS

This form serves as a Uniform Data Entry Form to capture additional case specific information not clear from the Consumer Complaint or Medical Records in a standardized manner. Because each follow-up interview made with owners features questions tailored specifically to the case, each box of information contained in this Uniform Data Entry Form may not be completed.

HISTORY-Additional Comments from Owner

Owner's Description of What Happened:

has always been a short burst runner, not a long distance runner. No coughing. At an annual physical, heard a murmur and referring doctor started heart meds. Murmur has gotten better since. Didn't act any differently still ran around a lot eating and drinking well. He doesn't seem to know he has

Any Health Problems Prior to the Event (e.g. allergies, surgeries):

This past fall had emergency surgery for OCD behavior/anxiety issues; elevated liver enzymes that resolved

Sensitive GI tract (e.g. stomach upset when switching foods, eats a lot of grass) Yes

Changes to the pet's diet prior to illness Yes

Date Diet Change:

CLINICAL INFORMATION--Additional Comments from Owner on What Happened

Appetite Increased Decreased

Water Consumption Increased Decreased

Vomiting Yes

Urination Increased Decreased

Diarrhea Yes

Lethargy Yes

Duration of Diarrhea (days)

Other:

Blood in Feces Fresh,Red
 Coffee Ground
 Black,Tarry

MEDICATIONS-Taken Prior to the Event and Mentioned by Owner

List medications mentioned by owner (e.g. NSAIDs, steroids, heartworm/flea prevention, antibiotics, etc.)

List probiotics, vitamins, or supplements mentioned by owner:

**Follow-up Case Information Uniform Data Entry Form
Vet-LIRN**

EON/CC Number: 351,879

Owner: **B6**

Pet's Name: **B6**

DIET-Any other foods the owner mentions were given to the animal during this period. (check all that apply)

Commercial Dry Product Use as Part of Diet: Primary Secondary Occasional

List Product Label Name

Purina non-GF as a puppy; Blue Buffalo Salmon and Potato Basics GF and non-GF; added Merrick duck GF sometimes (1.5 cup BID per label)

Commercial Wet-Canned Product Use as Part of Diet: Primary Secondary Occasional

List Product Label Name

Commercial Wet-Pouch Product Use as Part of Diet: Primary Secondary Occasional

List Product Label Name:

Commercial-Raw Product Use as Part of Diet: Primary Secondary Occasional

List Product Label Name:

Homemade-Raw Product Use as Part of Diet: Primary Secondary Occasional

Describe Product Type:

Homemade-Cooked Product Use as Part of Diet: Primary Secondary Occasional

Describe Product Type:

occasionally boiled meat and rice

Table Scraps/Human Food (as an occasional contribution to diet) Describe Product Type(s): none

Pet Treat Products Product Use as Part of Diet: Primary Secondary Occasional

Commercial Product Label Name/Lot: Steward's freeze-dried beef liver treats; Zuke's Date first fed

How Product Administered: used for training (not as much recently) Date last fed

Rawhides or Pig Ears Product Label Name/Lot: maybe once or twice Date first fed

How Product Administered: not in last few years Date last fed

Marrow Bones Product Label Name/Lot: smoked bones from pet store Date first fed

How Product Administered: occasionally--cause diarrhea Date last fed

Chicken Jerky Product Label Name/Lot: Date first fed

How Product Administered: Date last fed

Duck Jerky Product Label Name/Lot: Date first fed

How Product Administered: Date last fed

Sweet Potato Jerky or Treats Product Label Name/Lot: Date first fed

How Product Administered: Date last fed

**Follow-up Case Information Uniform Data Entry Form
Vet-LIRN**

EON/CC Number: 351,879

Owner:

B6

Pet's Name:

B6

DIET-continued-Any other foods the owner mentions were given to the animal during this period. (check all that apply)

Other Treats Product Label Name/Lot: Date first fed
How Product Administered: Date last fed

ENVIRONMENTAL EXPOSURES-Environmental Exposures Mentioned by the Owner Potentially Affecting the Animal's Overall State of Health Prior to the Event . (check all that apply)

- Indoor Outdoor Indoor & Outdoor Carrion Rodents Grapes or Raisins Nuts
 Plants Trash Hunt Pet Shows Sporting Events Pet Recreation Facilities
 Livestock Poultry Reptiles Pet Birds Small Mammals Untreated Surface Water
 Anti-freeze Mushrooms Heavy Metals Ticks Urban Suburban Rural

Indoor, outside for walks in a leash, used to go running on a leash. Got into a dead animal over 4 years ago and vomited after. Goes to dog parks. Likes to eat grass.

Comments: Had a cat 3 years ago, ran away. Has eaten rabbit and deer poop.

No recent trauma, neoplasia, hyperthermia, irradiation, electric shock. No access to human drugs/chemo agents/ alcohol. No foxglove, black locust, buttercup, lily-of-the-valley, japanese yew, gossypol.

HOUSEHOLD-Signalment of Additional Animals Given the Product mentioned by the owner.

Animal 1 Reacted
Animal 2 Reacted
Animal 3 Reacted

Comments

Submit

From: Rotstein, David </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS /CN=0A3B17EBFCF14A6CB8E94F322906BADD-DROTSTEI>
To: Carey, Lauren; Palmer, Lee Anne; Queen, Jackie L; Glover, Mark; Jones, Jennifer L; Ceric, Olgica; Nemser, Sarah
Sent: 5/21/2018 12:02:08 AM
Subject: Fwd: EON-354199 DCM case from Tufts Event: Dog owner

From: RFR Event <rfreventcreation@fda.hhs.gov>
Date: May 19, 2018 at 5:48:40 PM EDT
To: Lambkin, Sonya <Sonya.Lambkin@fda.hhs.gov>, orahqreportablefoodnotificationtriagegroup@fda.hhs.gov <orahqreportablefoodnotificationtriagegroup@fda.hhs.gov>, Bataller, Neal <Neal.Bataller@fda.hhs.gov>, Johnston, Ying F <Ying.Johnston@fda.hhs.gov>, Edwards, Elizabeth <Elizabeth.Edwards@fda.hhs.gov>, Rotstein, David <David.Rotstein@fda.hhs.gov>, Yowell, Ruth <Ruth.Yowell@fda.hhs.gov>, ORA HAF EAST1 Reportable Food Notification <orahafeast1reportablefoodnotification@fda.hhs.gov>, Krieger, Darlene <Darlene.Krieger@fda.hhs.gov>, CFSAN Reportable Food Registry <CFSANReportableFoodRegistry@fda.hhs.gov>, FDA Emergency Operations <emergency.operations@fda.hhs.gov>, Cleary, Michael * <Michael.Cleary@fda.hhs.gov>, Weems, Shellie * <Shellie.Weems@fda.hhs.gov>, Hodges, April <April.Hodges@fda.hhs.gov>, ORA OEIO RECALLS Branch <oraioiorecallsbranch@fda.hhs.gov>, Nelson, Eric <Eric.Nelson@fda.hhs.gov>, McCoig, Amber <Amber.McCoig@fda.hhs.gov>, Glover, Mark <Mark.Glover@fda.hhs.gov>, Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>, Carey, Lauren <Lauren.Carey@fda.hhs.gov>, Queen, Jackie L <Jackie.Queen@fda.hhs.gov> [REDACTED] **B6**
Subject: EON-354199 RFR Event: Dog owner

A RFR Report has been received and RFR Event [EON-354199] has been created in the EON System under **ICSR # 2048088**.

Reason this food is reportable: Other

Please describe Other: Associated with case of dilated cardiomyopathy

Product Name: 4Health large breed dry food

| Type of Site: | Sender | Food Facility Site |
|-------------------------|--|--------------------|
| FDA Districts Impacted: | NWE | NWE |
| Organization Name: | Tufts Cummings School of Veterinary Medicine | Dog owner |

| | | |
|-----------------|--|---|
| Address: | 200 Westboro Rd North Grafton, MA 01536 United States | unknown unknown, B6 01536 United States |
|-----------------|--|---|

Discovery Date: 2018-05-18

Product Group: Pet Food

Description: 2 year old Great Dane with DCM and CHF. Has eaten 4Health dog food (large breed dry) since 6/2016. Taurine levels pending

Product Recall: No

Human Symptoms Present: No

Animal Symptoms Present: Yes

Animal Symptoms Description: Please see above. More details can be provided

Product Distribution Type: Retail

Root Cause: Not applicable

Discovery Code: Consumer

Submission Type: Initial

Reporting Type: Voluntary

EON Key: EON-354199

EON Title: RFR Event created for 4Health large breed dry food; 2048088

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

<https://eon.fda.gov/eon//browse/EON-354199>

To view the RFR Report, please click the link below:

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jspa?decorator=none&e=0&issueType=9&issueId=370681>

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From: Carey, Lauren </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=F0226BD682844FA2B71EA3750D4FCB82-LAUREN.CARE>
To: Rotstein, David; Ceric, Olgica; Jones, Jennifer L; Glover, Mark; Nemser, Sarah; Palmer, Lee Anne; Queen, Jackie L; Reimschuessel, Renate
Sent: 5/21/2018 11:43:10 AM
Subject: RE: EON-354199 RFR Event: Dog owner

Will do.

From: Rotstein, David
Sent: Monday, May 21, 2018 7:11 AM
To: Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>
Subject: RE: EON-354199 RFR Event: Dog owner

Agreed

Lauren, sorry to trouble you with it, but yes, please enter it in.

dave

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



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From: Carey, Lauren
Sent: Monday, May 21, 2018 6:46 AM
To: Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>; Reimschuessel, Renate <Renate.Reimschuessel@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>
Subject: FW: EON-354199 RFR Event: Dog owner

We should probably stress to these groups that they should reports as PFRs, not RFRs. We could send a guide as to how to answer the first few questions in order to ensure they choose the PFR route. Should I enter this as a PFR?

From: RFR Event [mailto:rfr eventcreation@fda.hhs.gov]

Sent: Saturday, May 19, 2018 5:48 PM

To: Lambkin, Sonya <Sonya.Lambkin@fda.hhs.gov>; orahqreportablefoodnotificationtriagegroup@fda.hhs.gov; Bataller, Neal <Neal.Bataller@fda.hhs.gov>; Johnston, Ying F <Ying.Johnston@fda.hhs.gov>; Edwards, Elizabeth <Elizabeth.Edwards@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>; Yowell, Ruth <Ruth.Yowell@fda.hhs.gov>; ORA HAF EAST1 Reportable Food Notification <orahafeast1reportablefoodnotification@fda.hhs.gov>; Krieger, Darlene <Darlene.Krieger@fda.hhs.gov>; CFSAN Reportable Food Registry <CFSANReportableFoodRegistry@fda.hhs.gov>; FDA Emergency Operations <emergency.operations@fda.hhs.gov>; Cleary, Michael * <Michael.Cleary@fda.hhs.gov>; Weems, Shellie * <Shellie.Weems@fda.hhs.gov>; Hodges, April <April.Hodges@fda.hhs.gov>; ORA OEIO RECALLS Branch <oraoeio recallsbranch@fda.hhs.gov>; Nelson, Eric <Eric.Nelson@fda.hhs.gov>; McCoig, Amber <Amber.McCoig@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>; [REDACTED] B6

Subject: EON-354199 RFR Event: Dog owner

A RFR Report has been received and RFR Event [EON-354199] has been created in the EON System under ICSR # 2048088.

Reason this food is reportable: Other

Please describe Other: Associated with case of dilated cardiomyopathy

Product Name: 4Health large breed dry food

| Type of Site: | Sender | Food Facility Site |
|-------------------------|--|--|
| FDA Districts Impacted: | NWE | NWE |
| Organization Name: | Tufts Cummings School of Veterinary Medicine | Dog owner |
| Address: | 200 Westboro Rd North Grafton, MA 01536 United States | unknown unknown [REDACTED] B6 01536 United States |

Discovery Date: 2018-05-18

Product Group: Pet Food

Description: 2 year old Great Dane with DCM and CHF. Has eaten 4Health dog food (large breed dry) since 6/2016. Taurine levels pending

Product Recall: No

Human Symptoms Present: No

Animal Symptoms Present: Yes

Animal Symptoms Description: Please see above. More details can be provided

Product Distribution Type: Retail

Root Cause: Not applicable

Discovery Code: Consumer

Submission Type: Initial

Reporting Type: Voluntary

EON Key: EON-354199

EON Title: RFR Event created for 4Health large breed dry food; 2048088

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

<https://eon.fda.gov/eon//browse/EON-354199>

To view the RFR Report, please click the link below:

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jspa?decorator=none&e=0&issueType=9&issueId=370681>

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From: Carey, Lauren </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=F0226BD682844FA2B71EA3750D4FCB82-LAUREN.CARE>
To: Ceric, Olgica; Jones, Jennifer L; Glover, Mark; Nemser, Sarah; Palmer, Lee Anne; Queen, Jackie L; Reimschuessel, Renate; Rotstein, David
Sent: 5/21/2018 12:01:35 PM
Subject: FW: 4Health large breed dry food: Lisa Freeman - EON-354251
Attachments: 2048125-report.pdf

PFR for the RFR.

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

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

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

Below is the summary of the report:

EON Key: EON-354251

ICSR #: 2048125

EON Title: PFR Event created for 4Health large breed dry food; 2048125

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

Product information

Individual Case Safety Report Number: 2048125

Product Group: Pet Food

Product Name: 4Health large breed dry food

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

Submission Type: Initial

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

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

Number of Animals Treated With Product: 1

Number of Animals Reacted With Product: 1

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

Sender information

Lisa Freeman
200 Westboro Rd
North Grafton, MA 01536
USA

Owner information

B6
Unknown
Unknown, **B6** USA

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

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

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

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

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Client Notes
for [B6]

| Date/Time | Attached By | Note | Patient | Has Documenter |
|-------------------|-------------|--|---------|--------------------------|
| 7/26/2018 6:19 PM | lfreem01 | LMOM. Said I was sorry about [B6] and hope she's doing ok. Explained that i'm a nutritionist at Tufts and working on a potential association between diet and DCM. FDA is interested in learning more about [B6] but I wanted to talk to her first to see if she's willing to let me share medical records and for FDA to contact owner. Please call back and I will answer any questions she might have. | | <input type="checkbox"/> |
| [B6] 3:51 PM | [B6] | LMOM, want to know what happened, we are very sorry to hear that [B6] passed away. Please give us a call if you want to talk. | | <input type="checkbox"/> |
| [B6] 8:31 AM | [B6] | Email from Switchboard Operator to MedRec: [B6] 12:55 PM Good Afternoon Medical Records Team, [B6] owner called in to let us know that [B6] unfortunately passed today. Best, [B6] [B6] account has been changed to "deceased". - [B6] | | <input type="checkbox"/> |
| [B6] 6:36 PM | [B6] | owner called, spoke with both the operator and myself re: message left by student earlier today. The operator tried to get a hold of both [B6] and the student. I tried to help the owner with her questions re: a new [B6] regime. She had questions re: counting Resp Rates prior to giving the medication since that is what she has done in the past. There were no notes re: the Resp rates, so I could not help with confidence as to what the owner should do. I transferred her back to the operator for the operator to email [B6] re: the owner's questions. [B6] | [B6] | <input type="checkbox"/> |
| [B6] 5:32 PM | [B6] | LMOM: Told O that the thyroid level was within the normal range. And his kidney values are normal range as well, so we would like to increase the dose of [B6] as he had one episode of increased respiratory rate and effort. The new regimen we recommend is 100mg [B6] BID first day, then 100mg [B6] in the morning, 150mg during the day, and then 100mg in the evening (total TID) regime. Also told O that if this doesn't work out with her schedule, she can do 100mg [B6] BID first day, and 150mg [B6] BID second day in alternating pattern. Told O to call back if confused. [B6] V19 | [B6] | <input type="checkbox"/> |
| 5/22/2018 4:46 PM | [B6] | SWO said Friday, [B6] at 3pm we have a slot for [B6] with [B6] to check his kidney value and also his thyroid level if it is indicated. O will bring [B6] then [B6] [B6] V19 | [B6] | <input type="checkbox"/> |

Client Notes
for **B6**

| Date/Time | Attached By | Note | Patient | Has Document |
|-------------------|-------------|--|-----------|--------------------------|
| 5/22/2018 4:39 PM | B6 | SWO O wondering if we drew blood for his thyroid level while he was here. Told O that we did not check thyroid level. O wondering because she read in the web that hypothyroidism can cause DCM in some dogs and was wondering if B6 has hypothyroidism or not. Told O if she really wants to check it she can request the blood work to be done when B6 comes for kidney value rechecked in a week or so. By then, we might get his taurine level back to and investigate multiple potential causes for DCM at once. Also recommended making an appointment with Internal medicine if she really wants to figure out why she is having a hard time giving weight to B6 O understands and said probably make an appointment with IM and request T4 when B6 comes here for kidney value recheck. B6 B6 V19 | B6 | <input type="checkbox"/> |
| 5/21/2018 4:39 PM | B6 | SWO told O that the instruction on the discharge is incorrect and the instruction on the bottle is correct; B6 should be receiving 1 tablet of B6 twice a day. Apologized to O, O understands; B6 V19 | B6 | <input type="checkbox"/> |
| 5/21/2018 3:47 PM | B6 | SWO regarding the callbacks. O was wondering when to start the enalapril, and told her since B6 is eating fine, we're good to start it today. O was wondering potential causes of DCM on dogs from the information she got on the internet. Told O that current evidence suggest genetic predisposition and taurine deficiency are the big two factors, and not probably quills entering her arteries. O wishes to see the chest radiograph when she comes back for recheck to take the photo of the radiograph. O would like us to point out the fluid in B6 lungs. O very appreciative of the call and has no other questions. B6 B6 V19 | B6 | <input type="checkbox"/> |
| 5/19/2018 5:45 PM | lfreem01 | Reported case to FDA as potential diet-related DCM | B6 | <input type="checkbox"/> |

18901 PL
18902 WB

Sample Submission Form

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

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

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

Vet/Tech Contact: **B6**

Company Name: Tufts Cummings School of Veterinary Medicine

Address: 200 Westboro Road

North Grafton, MA 01536

Email: clinpath@tufts.edu

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

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

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

Patient Name: **B6**

Species: CANINE

Owner's Name: **B6**

Sample Type: Plasma Whole Blood Urine Food Other: _____

Test Items: Taurine Complete Amino Acid Other: _____

Taurine Results (nmol/ml)

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

Reference Ranges (nmol/ml)

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

B6
B6 10:00 AM Canine
TAURINE PANEL
Lithium Heparin

[B6] SIGNALMENT: 2yo MC Great Dane

PRESENTING COMPLAINT: ref: possible CHF

HISTORY:

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

SUBJECTIVE:

B6

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

B6

ASSESSMENT:

A1: Advanced DCM

A2: CHF

PLAN:

B6

Diagnostics Completed:

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

Tufts:

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

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

PCV/TS **B6** 6.0

Cardiology Consultation: DCM with LAE and mild MR

Code: **B6**

Estimate **B6**

Client Comm:

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

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

B6 DVM (ECC Resident)

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

[B6]

History:

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

Current medications:

[B6]

Overnight Update:

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

Subjective:

(S) T: NP due to patient compliance
HR: 100
RR: 24, normal effort
Weight: 46.1kg
Mentation: Normal
Hydration: overhydrated
Overall impression since arrival: stable
Appetite: excellent

Objective:

(O)

[B6]

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

[B6]

Diagnostics Completed:

[B6]

AFAST/TFAST: B-lines in most fields, LV dilation with limited contractility, negative for fluid
NOVA: Lactate [B6] (0-2), BUN [B6] Creat [B6]
PCV/TS: [B6]

Cardiology Consultation: DCM with LAE and mild MR

Assessments:

A1: CHF secondary to DCM - improving

A2: Frequent VPC's with 2 episodes of couplets

Plan:

B6

SOAP completed by: B6 /19

SOAP reviewed by: B6 DVM

From: Carey, Lauren </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=F0226BD682844FA2B71EA3750D4FCB82-LAUREN.CARE>
To: Jones, Jennifer L
Sent: 6/5/2018 3:18:06 PM
Subject: RE: DCM -should be a PFR-FW: EON-355590 RFR Event: [B6] (owner)

Excellent! I'm glad to help.

From: Jones, Jennifer L
Sent: Tuesday, June 05, 2018 11:17 AM
To: Carey, Lauren <Lauren.Carey@fda.hhs.gov>
Subject: RE: DCM -should be a PFR-FW: EON-355590 RFR Event: [B6] (owner)

Thank you. Actually, yes! I'd appreciate your feedback after I combine the edits. [B5]

[B5]

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



From: Carey, Lauren
Sent: Tuesday, June 05, 2018 11:06 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>; Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>
Subject: RE: DCM -should be a PFR-FW: EON-355590 RFR Event: [B6] (owner)

Thanks! Let me know if I can help in any way.

From: Jones, Jennifer L
Sent: Tuesday, June 05, 2018 10:53 AM
To: Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>; Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>
Subject: RE: DCM -should be a PFR-FW: EON-355590 RFR Event: [B6] (owner)

[B5]

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



From: Carey, Lauren
Sent: Tuesday, June 05, 2018 9:46 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>; Nemser,

Sarah <Sarah.Nemser@fda.hhs.gov>; Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>

Subject: RE: DCM -should be a PFR-FW: EON-355590 RFR Event: [REDACTED] (owner)

Thanks, Jen. [REDACTED]

[REDACTED]

[REDACTED]

From: Jones, Jennifer L

Sent: Tuesday, June 05, 2018 9:24 AM

To: Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>; Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>

Subject: RE: DCM -should be a PFR-FW: EON-355590 RFR Event: [REDACTED] (owner)

Yes, I did instruct her to submit the case as a PFR, but because I was out on leave and it wasn't clear using the website, it looks like she went ahead and submitted it as an RFR.

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



From: Carey, Lauren

Sent: Tuesday, June 05, 2018 8:07 AM

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

Subject: RE: DCM -should be a PFR-FW: EON-355590 RFR Event: [REDACTED] (owner)

I'll make a PFR. Is there any way to reach out to this group and help them understand they're vets, not industry? These RFRs are so limited on what they can report. L

From: Rotstein, David

Sent: Monday, June 04, 2018 4:58 PM

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

Subject: DCM -should be a PFR-FW: EON-355590 RFR Event: [REDACTED] (owner)

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





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From: RFR Event [<mailto:rfr eventcreation@fda.hhs.gov>]
Sent: Monday, June 04, 2018 4:56 PM
To: Lambkin, Sonya <Sonya.Lambkin@fda.hhs.gov>; orahqreportablefoodnotificationtriagegroup@fda.hhs.gov; Bataller, Neal <Neal.Bataller@fda.hhs.gov>; Johnston, Ying F <Ying.Johnston@fda.hhs.gov>; Edwards, Elizabeth <Elizabeth.Edwards@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>; Yowell, Ruth <Ruth.Yowell@fda.hhs.gov>; ORA HAF EAST1 Reportable Food Notification <orahafeast1reportablefoodnotification@fda.hhs.gov>; Krieger, Darlene <Darlene.Krieger@fda.hhs.gov>; CFSAN Reportable Food Registry <CFSANReportableFoodRegistry@fda.hhs.gov>; FDA Emergency Operations <emergency.operations@fda.hhs.gov>; Cleary, Michael * <Michael.Cleary@fda.hhs.gov>; Weems, Shellie * <Shellie.Weems@fda.hhs.gov>; Hodges, April <April.Hodges@fda.hhs.gov>; ORA OEIO RECALLS Branch <oraoeio recallsbranch@fda.hhs.gov>; Nelson, Eric <Eric.Nelson@fda.hhs.gov>; McCoig, Amber <Amber.McCoig@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>; [REDACTED]
Subject: EON-355590 RFR Event [REDACTED] (owner)

A RFR Report has been received and RFR Event [EON-355590] has been created in the EON System under ICSR # 2048966.

Reason this food is reportable: Other

Please describe Other: possible diet-associated DCM

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

| Type of Site: | Sender | Food Facility Site |
|-------------------------|--|-----------------------------|
| FDA Districts Impacted: | NWE | NWE |
| Organization Name: | Tufts Cummings School of Veterinary Medicine | [REDACTED] (owner) |
| Address: | 200 Westboro Rd North Grafton, MA 01536 United States | [REDACTED] United States |

Discovery Date: 2018-05-29

Product Group: Pet Food

Description: 4health Grain-Free Large Breed Formula Adult Dog Food. Owner was asked to save food. Plasma taurine [REDACTED] (ref range 60-120), WB taurine [REDACTED] (ref range 200-350)

Product Recall: No

Human Symptoms Present: No

Animal Symptoms Present: Yes

Animal Symptoms Description: Dog has dilated cardiomyopathy and congestive heart failure. Can provide additional details

Product Distribution Type: Retail

Discovery Code: Other

Submission Type: Initial

Reporting Type: Voluntary

EON Key: EON-355590

EON Title: RFR Event created for 4health Grain-Free Large Breed Formula Adult Dog Food; 2048966

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

<https://eon.fda.gov/eon//browse/EON-355590>

To view the RFR Report, please click the link below:

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jspx?decorator=none&e=0&issueType=9&issueId=372111>

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From: Carey, Lauren </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=F0226BD682844FA2B71EA3750D4FCB82-LAUREN.CARE>
To: Ceric, Olgica; Jones, Jennifer L; Glover, Mark; Nemser, Sarah; Palmer, Lee Anne; Queen, Jackie L; Reimschuessel, Renate; Rotstein, David
Sent: 6/6/2018 12:47:59 PM
Subject: FW: 4health Grain-Free Large Breed Formula Adult Dog Food: Lisa Freeman - EON-355703
Attachments: 2049063-report.pdf

FYI, this is the PFR created for the Tufts DCM RFR (EON-355590). Not a lot of info as far as dog, etc. If we collect anything on this one I can update within our databases.

Thanks,
Lauren

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

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

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

Below is the summary of the report:

EON Key: EON-355703

ICSR #: 2049063

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

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

Product information

Individual Case Safety Report Number: 2049063

Product Group: Pet Food

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

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

Submission Type: Initial

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

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

Number of Animals Treated With Product: 1

Number of Animals Reacted With Product: 1

| Product Name | Lot Number or ID | Best By Date |
|---|------------------|--------------|
| 4health Grain-Free Large Breed Formula Adult Dog Food | | |

Sender information

Lisa Freeman
200 Westboro Road
North Grafton, MA 01536
USA

Owner information

B6 USA

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

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

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

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

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From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
To: Jones, Jennifer L
Sent: 9/3/2018 2:48:16 PM
Subject: RE: [REDACTED] B6
Attachments: [REDACTED] B6 cardio appt 6-12-18.pdf; [REDACTED] B6 cardio consult 5-28-18.pdf; [REDACTED] B6 discharge 5-30-18.pdf; [REDACTED] B6 discharge 6-12-18.pdf; [REDACTED] B6 labs may 2018.pdf; [REDACTED] B6 nova 5-29-18.pdf; [REDACTED] B6 profile 6-12-18.pdf; [REDACTED] B6 radiology report 5-29-18.pdf; [REDACTED] B6 soaps.pdf; [REDACTED] B6 taurine.pdf

Hi Jen
Please see attached
Lisa

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

From: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Sent: Friday, August 31, 2018 9:05 AM
To: Freeman, Lisa <lisa.freeman@tufts.edu>
Subject: RE: [REDACTED] B6

Looking at his case, do you have any medical records you can share?

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



From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
Sent: Friday, August 31, 2018 9:03 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: Automatic reply: [REDACTED] B6

I'll be out of the office until Monday, Sept 3. I'll get back to you as soon as possible when I return.
Kind regards,
Lisa Freeman

| Date/Time | Patient | Description | Type | Results | Unit/Measure | Reference Range | High | Low | Notes | Technician | Hospital | Accession | File No | Case No | Age | Gender |
|-----------|---------|-------------|-------|---------|--------------|-----------------|------|------|-------|------------|----------|-----------|---------|---------|-----|--------|
| 5/28/2006 | B6 | OSMOLA | Chemi | | mmol/L | | 315. | 291. | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | AMYLAS | Chemi | | U/L | | 1250 | 409. | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | TRIGLYC | Chemi | | mg/dl | | 338. | 30.0 | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | CHOLEST | Chemi | | mg/dL | | 355. | 82.0 | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | CK | Chemi | | U/L | | 422. | 22.0 | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | AST | Chemi | | U/L | | 54.0 | 9.00 | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | ALT | Chemi | | U/L | | 86.0 | 14.0 | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | GGT | Chemi | | U/L | | 10.0 | 0.00 | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | ALK PHO | Chemi | | U/L | | 127. | 12.0 | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | I BILIRU | Chemi | 0.00 | mg/dL | | 0.20 | 0.00 | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | D.BILIRU | Chemi | 0.00 | mg/dL | | 0.10 | 0.00 | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | T BILIRU | Chemi | <0.1 | mg/dL | | 0.30 | 0.10 | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | NA/K | Chemi | | | | 40.0 | 29.0 | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | AGAP | Chemi | | | | 19.0 | 8.00 | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | tCO2 (BI | Chemi | | mEq/L | | 28.0 | 14.0 | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | POTASSI | Chemi | | mEq/L | | 5.40 | 3.70 | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | RETICS (| CBC | | K/uL | | 113. | 14.7 | | | | 3933 | CBC, | 2006 | | |
| 5/28/2006 | B6 | RETIC(A | CBC | | % | | 1.60 | 0.20 | | | | 3933 | CBC, | 2006 | | |
| 5/28/2006 | B6 | CHLORI | Chemi | | mEq/L | | 116. | 106. | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | PLTCRT | CBC | | % | Platele | 0.40 | 0.12 | | | | 3933 | CBC, | 2006 | | |
| 5/28/2006 | B6 | SODIUM | Chemi | | mEq/L | | 150. | 140. | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | POIKILO | CBC | | | 1+ | 0.00 | 0.00 | | | | 3933 | Micr | 2006 | | |
| 5/28/2006 | B6 | MPV (AD | CBC | | fl | Platele | 13.2 | 8.29 | | | | 3933 | CBC, | 2006 | | |
| 5/28/2006 | B6 | A/G RAT | Chemi | | | | 1.60 | 0.70 | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | WBC MO | CBC | | | No Mo | 0.00 | 0.00 | | | | 3933 | Micr | 2006 | | |
| 5/28/2006 | B6 | EOS (AB | CBC | | K/uL | | 1.40 | 0.00 | | | | 3933 | Micr | 2006 | | |
| 5/28/2006 | B6 | GLOBULI | Chemi | | g/dL | | 4.20 | 2.30 | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | PLT(ADV | CBC | | K/uL | 10-25 | 486. | 173. | | | | 3933 | CBC, | 2006 | | |
| 5/28/2006 | B6 | RDW (A | CBC | | | | 15.2 | 11.9 | | | | 3933 | CBC, | 2006 | | |
| 5/28/2006 | B6 | MONOS | CBC | | K/uL | | 1.50 | 0.10 | | | | 3933 | Micr | 2006 | | |
| 5/28/2006 | B6 | ALBUMI | Chemi | | g/dL | | 4.00 | 2.80 | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | T. PROT | Chemi | | g/dL | | 7.80 | 5.50 | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | MCHC(A | CBC | | g/dL | | 34.3 | 31.9 | | | | 3933 | CBC, | 2006 | | |
| 5/28/2006 | B6 | LYMPHS | CBC | | K/uL | | 4.80 | 1.00 | | | | 3933 | Micr | 2006 | | |
| 5/28/2006 | B6 | SEGS (A | CBC | | K/ul | | 11.5 | 2.80 | | | | 3933 | Micr | 2006 | | |
| 5/28/2006 | B6 | MCH(AD | CBC | | pg | | 25.9 | 21.3 | | | | 3933 | CBC, | 2006 | | |
| 5/28/2006 | B6 | MAGNES | Chemi | | mEq/L | | 3.00 | 1.80 | | | | 3933 | Che | 2006 | | |
| 5/28/2006 | B6 | NRBC | CBC | | /100 | White | 1.00 | 0.00 | | | | 3933 | Micr | 2006 | | |
| 5/28/2006 | B6 | MCV(AD | CBC | | fL | | 77.5 | 64.5 | | | | 3933 | CBC, | 2006 | | |

B6

| Date/Time | Patient | Description | Type | Results | Unit/Measure | Reference Res | High | Low | Notes | Instrument | Technician | Hospital | Accession | File Name | Case Tag | Tag Number |
|-----------|---------|-------------|-------|---------|--------------|---------------|------|------|-------|------------|------------|----------|-----------|-----------|----------|------------|
| 5/28/2006 | B6 | ALCIU | Chemi | | mg/dL | | 11.3 | 9.40 | | | | | 3933 | Che | 2006 | |
| 5/28/2006 | B6 | OS% | CBC | | % | | 16.0 | 0.00 | | | | | 3933 | Micr | 2006 | |
| 5/28/2006 | B6 | CT(AD | CBC | | % | | 55.0 | 39.0 | | | | | 3933 | CBC, | 2006 | |
| 5/28/2006 | B6 | HOSPH | Chemi | | mg/dL | | 7.20 | 2.60 | | | | | 3933 | Che | 2006 | |
| 5/28/2006 | B6 | REATIN | Chemi | | mg/dL | | 2.00 | 0.60 | | | | | 3933 | Che | 2006 | |
| 5/28/2006 | B6 | GB(AD | CBC | | g/dL | | 20.5 | 13.3 | | | | | 3933 | CBC, | 2006 | |
| 5/28/2006 | B6 | ONOS | CBC | | % | | 15.0 | 1.00 | | | | | 3933 | Micr | 2006 | |
| 5/28/2006 | B6 | BC(ADV | CBC | | M/uL | | 8.50 | 5.80 | | | | | 3933 | CBC, | 2006 | |
| 5/28/2006 | B6 | REA | Chemi | | mg/dL | | 30.0 | 8.00 | | | | | 3933 | Che | 2006 | |
| 5/28/2006 | B6 | YMPHS | CBC | | % | | 47.0 | 7.00 | | | | | 3933 | Micr | 2006 | |
| 5/28/2006 | B6 | LUCOS | Chemi | | mg/dL | | 135. | 67.0 | | | | | 3933 | Che | 2006 | |
| 5/28/2006 | B6 | EGS% | CBC | | % | | 86.0 | 43.0 | | | | | 3933 | Micr | 2006 | |
| 5/28/2006 | B6 | BC (AD | CBC | | K/uL | | 15.1 | 4.40 | | | | | 3933 | CBC, | 2006 | |

| Accession ID | Patient | Description | Type | Results | Unit/Measure | Reference Res | High | Low | Notes | Instrument | Technician | Hospital | Accession | File Name | Case Tag | Tag Number |
|--------------|---------|-------------|------|---------|--------------|---------------|------|------|-------|------------|------------|----------|-----------|-----------|----------|------------|
| 5/28/2006 | B6 | FI02 | NOVA | | % | 21% (r | 0.00 | 0.00 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | NOVA SA | NOVA | | | Venou | 0.00 | 0.00 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | A | NOVA | | mmHg | | 0.00 | 0.00 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | HCO3 | IRMA | | mmol/ | | 24.0 | 18.0 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | BEb | NOVA | | mmol/ | -6.4 | 0.00 | 0.00 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | BEecf | NOVA | | mmol/ | -8.5 | 0.00 | 0.00 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | CA/MG | NOVA | | mol/m | | 0.00 | 0.00 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | GAP | NOVA | | mmol/ | | 0.00 | 0.00 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | nMG | NOVA | | mmol/ | | 0.00 | 0.00 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | nCA | NOVA | | mmol/ | | 0.00 | 0.00 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | TCO2 (P | NOVA | | mmol/ | | 0.00 | 0.00 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | CREAT (| NOVA | | mg/dL | | 2.10 | 0.20 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | BUN (PO | NOVA | | mg/dL | | 28.0 | 12.0 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | LACTATE | NOVA | | mmol/ | | 2.00 | 0.00 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | GLUCOS | NOVA | | mg/dL | | 120. | 80.0 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | MG (POC | NOVA | | mmol/ | | 0.40 | 0.10 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | CA (ioniz | NOVA | | mmol/ | | 1.38 | 1.17 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | CL(POC) | NOVA | | mmol/ | | 120. | 109. | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | K (POC) | NOVA | | mmol/ | | 4.80 | 3.60 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | NA (POC | NOVA | | mmol/ | | 154. | 140. | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | HB (POC | NOVA | | g/dL | | 16.0 | 12.6 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | HCT (PO | NOVA | | % | | 48.0 | 38.0 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | SO2% | NOVA | | % | | 100. | 94.0 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | PO2 | nova | | mmHg | | 100. | 80.0 | | | | | 3933 | Nova | 2006 | |
| 5/28/2006 | B6 | PCO2 | IRMA | | mmHg | | 44.0 | 36.0 | | | | | 3933 | Nova | 2006 | |

Lab Work
 fd **B6**

| Date/Time | Patient | Description | Type | Results | Unit/Meas | Order Res | High | Low | Notes | Order | Technician | Hospital | Accession | File No | Case | Tag | Numb |
|-----------|-----------|-------------|------|-----------|-----------|-----------|------|------|-------|-------|------------|----------|-----------|---------|------|------|------|
| 5/28/2 | B6 | PH | IRMA | B6 | | | 7.46 | 7.33 | | | | | B6 | 3933 | Nova | 2006 | |

| Accession ID: B6 | | | | | | | | | | | | | | | | | |
|-------------------------|-----------|----------|-------|-----------|------|--|------|------|--|--|--|--|-----------|------|-----|--|--|
| 5/28/2 | B6 | PCV ** | PCV/T | B6 | % | | 0.00 | 0.00 | | | | | B6 | 3933 | Non | | |
| 5/28/2 | B6 | TS (FHS) | PCV/T | B6 | g/dl | | 0.00 | 0.00 | | | | | B6 | 3933 | Non | | |

| Accession ID: B6 | | | | | | | | | | | | | | | | | |
|-------------------------|-----------|---------|-------|-----------|-------|-------|------|------|--|--|--|--|-----------|------|-------|------|--|
| 5/29/2 | B6 | TAURINE | Chemi | B6 | nmol/ | >200 | 350. | 200. | | | | | B6 | 3935 | Tauri | 2007 | |
| 5/29/2 | B6 | TAURINE | Chemi | B6 | nmol/ | >40 n | 120. | 60.0 | | | | | B6 | 3935 | Tauri | 2007 | |

| Accession ID: B6 | | | | | | | | | | | | | | | | | |
|-------------------------|-----------|-----------|------|-----------|-------|--------|------|------|--|--|--|--|-----------|------|------|------|--|
| 5/29/2 | B6 | FIO2 | NOVA | B6 | % | 21% (r | 0.00 | 0.00 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | NOVA SA | NOVA | B6 | | Venou | 0.00 | 0.00 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | A | NOVA | B6 | mmHg | | 0.00 | 0.00 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | HCO3 | IRMA | B6 | mmol/ | | 24.0 | 18.0 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | BEb | NOVA | B6 | mmol/ | -1.2 | 0.00 | 0.00 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | BEecf | NOVA | B6 | mmol/ | -3.3 | 0.00 | 0.00 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | CA/MG | NOVA | B6 | mol/m | | 0.00 | 0.00 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | GAP | NOVA | B6 | mmol/ | | 0.00 | 0.00 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | nMG | NOVA | B6 | mmol/ | | 0.00 | 0.00 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | nCA | NOVA | B6 | mmol/ | | 0.00 | 0.00 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | TCO2 (P | NOVA | B6 | mmol/ | | 0.00 | 0.00 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | CREAT (| NOVA | B6 | mg/dL | | 2.10 | 0.20 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | BUN (PO | NOVA | B6 | mg/dL | | 28.0 | 12.0 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | LACTATE | NOVA | B6 | mmol/ | | 2.00 | 0.00 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | GLUCOS | NOVA | B6 | mg/dL | | 120. | 80.0 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | MG (POC | NOVA | B6 | mmol/ | | 0.40 | 0.10 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | CA (ioniz | NOVA | B6 | mmol/ | | 1.38 | 1.17 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | CL(POC) | NOVA | B6 | mmol/ | | 120. | 109. | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | K (POC) | NOVA | B6 | mmol/ | | 4.80 | 3.60 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | NA (POC | NOVA | B6 | mmol/ | | 154. | 140. | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | HB (POC | NOVA | B6 | g/dL | | 16.0 | 12.6 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | HCT (PO | NOVA | B6 | % | | 48.0 | 38.0 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | SO2% | NOVA | B6 | % | | 100. | 94.0 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | PO2 | nova | B6 | mmHg | | 100. | 80.0 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | PCO2 | IRMA | B6 | mmHg | | 44.0 | 36.0 | | | | | B6 | 3936 | Nova | 2008 | |
| 5/29/2 | B6 | PH | IRMA | B6 | | | 7.46 | 7.33 | | | | | B6 | 3936 | Nova | 2008 | |

| Accession ID: B6 | | | | | | | | | | | | | | | | | |
|-------------------------|-----------|---------|-------|-----------|------|--|------|------|--|--|--|--|-----------|------|-----|--|--|
| 5/29/2 | B6 | CV ** | PCV/T | B6 | % | | 0.00 | 0.00 | | | | | B6 | 3936 | Non | | |
| 5/29/2 | B6 | S (FHS) | PCV/T | B6 | g/dl | | 0.00 | 0.00 | | | | | B6 | 3936 | Non | | |

Lab Work
for **B6**

Date/Time Patient Description Type Results Unit/Measure Res High Low Notes Veterinarian Technician Hospital Accession ID Case ID Bag Number

| Accession ID: B6 | | | | | | | | | | | | | | | |
|-------------------------|-----------|-----------|------|-------|--------|------|------|--|--|--|--|-----|------|------|--|
| 5/30/2 | | FIO2 | NOVA | % | 21% (r | 0.00 | 0.00 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | NOVA SA | NOVA | | Venou | 0.00 | 0.00 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | A | NOVA | mmHg | | 0.00 | 0.00 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | HCO3 | IRMA | mmol/ | | 24.0 | 18.0 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | BEb | NOVA | mmol/ | -2.5 | 0.00 | 0.00 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | BEcf | NOVA | mmol/ | -4.3 | 0.00 | 0.00 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | CA/MG | NOVA | mol/m | | 0.00 | 0.00 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | GAP | NOVA | mmol/ | | 0.00 | 0.00 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | nMG | NOVA | mmol/ | | 0.00 | 0.00 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | nCA | NOVA | mmol/ | | 0.00 | 0.00 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | TCO2 (P | NOVA | mmol/ | | 0.00 | 0.00 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | CREAT (| NOVA | mg/dL | | 2.10 | 0.20 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | B6 | BUN (PO | NOVA | mg/dL | | 28.0 | 12.0 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | LACTATE | NOVA | mmol/ | | 2.00 | 0.00 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | GLUCOS | NOVA | mg/dL | | 120. | 80.0 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | MG (POC | NOVA | mmol/ | | 0.40 | 0.10 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | CA (ioniz | NOVA | mmol/ | | 1.38 | 1.17 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | CL(POC) | NOVA | mmol/ | | 120. | 109. | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | K (POC) | NOVA | mmol/ | | 4.80 | 3.60 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | NA (POC | NOVA | mmol/ | | 154. | 140. | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | HB (POC | NOVA | g/dL | | 16.0 | 12.6 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | HCT (PO | NOVA | % | | 48.0 | 38.0 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | SO2% | NOVA | % | | 100. | 94.0 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | PO2 | nova | mmHg | | 100. | 80.0 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | PCO2 | IRMA | mmHg | | 44.0 | 36.0 | | | | | 938 | Nova | 2008 | |
| 5/30/2 | | PH | IRMA | | | 7.46 | 7.33 | | | | | 938 | Nova | 2008 | |

| Accession ID: B6 | | | | | | | | | | | | | | | |
|-------------------------|-----------|---------|-------|-----------|------|---------|------|------|--|--|--|------|-----|--|--|
| 5/30/2 | B6 | PCV ** | PCV/T | B6 | % | | 0.00 | 0.00 | | | | 3938 | Non | | |
| 5/30/2 | | TS (FHS | PCV/T | | g/dl | clear s | 0.00 | 0.00 | | | | 3938 | Non | | |

| Accession ID: B6 | | | | | | | | | | | | | | | |
|-------------------------|-----------|---------|-------|--------|-------|-------|------|------|--|--|--|------|-----|------|--|
| 6/12/2 | | COMMEN | Chemi | 0.0000 | | Moder | 0.00 | 0.00 | | | | 3983 | Che | 2031 | |
| 6/12/2 | | OSMOLA | Chemi | 299.00 | mmol/ | | 315. | 291. | | | | 3983 | Che | 2031 | |
| 6/12/2 | | CHOLES | Chemi | 213.00 | mg/dL | | 355. | 82.0 | | | | 3983 | Che | 2031 | |
| 6/12/2 | B6 | AST | Chemi | 40.000 | U/L | | 54.0 | 9.00 | | | | 3983 | Che | 2031 | |
| 6/12/2 | | ALT | Chemi | 44.000 | U/L | | 86.0 | 14.0 | | | | 3983 | Che | 2031 | |
| 6/12/2 | | ALK PHO | Chemi | L 6.00 | U/L | | 127. | 12.0 | | | | 3983 | Che | 2031 | |
| 6/12/2 | | BILIRU | Chemi | 0.0000 | mg/dL | 0.00 | 0.20 | 0.00 | | | | 3983 | Che | 2031 | |

Lab Work
for **B6**

| Date/Time | Patient | Description | Type | Results | Unit/Measure | Reference Res | High | Low | Notes | Technician | Hospital | Accession | File No | Case No | Tag Num |
|-----------|-----------|-------------|-------|-----------|--------------|---------------|------|------|-------|------------|-----------|-----------|---------|---------|---------|
| 6/12/2019 | | D. BILIRU | Chemi | | mg/dL | 0.00 | 0.10 | 0.00 | | | | 3983 | Che | 2031 | |
| 6/12/2019 | | T BILIRU | Chemi | | mg/dL | <0.1 | 0.30 | 0.10 | | | | 3983 | Che | 2031 | |
| 6/12/2019 | | NA/K | Chemi | | | | 40.0 | 29.0 | | | | 3983 | Che | 2031 | |
| 6/12/2019 | | POTASSI | Chemi | | mEq/L | | 5.40 | 3.70 | | | | 3983 | Che | 2031 | |
| 6/12/2019 | | CHLORI | Chemi | | mEq/L | | 116. | 106. | | | | 3983 | Che | 2031 | |
| 6/12/2019 | | SODIUM | Chemi | | mEq/L | | 150. | 140. | | | | 3983 | Che | 2031 | |
| 6/12/2019 | | A/G RAT | Chemi | | | | 1.60 | 0.70 | | | | 3983 | Che | 2031 | |
| 6/12/2019 | B6 | GLOBULI | Chemi | B6 | g/dL | | 4.20 | 2.30 | | | B6 | 3983 | Che | 2031 | |
| 6/12/2019 | | ALBUMI | Chemi | | g/dL | | 4.00 | 2.80 | | | | 3983 | Che | 2031 | |
| 6/12/2019 | | T. PROT | Chemi | | g/dL | | 7.80 | 5.50 | | | | 3983 | Che | 2031 | |
| 6/12/2019 | | CALCIU | Chemi | | mg/dL | | 11.3 | 9.40 | | | | 3983 | Che | 2031 | |
| 6/12/2019 | | PHOSPH | Chemi | | mg/dL | | 7.20 | 2.60 | | | | 3983 | Che | 2031 | |
| 6/12/2019 | | CREATIN | Chemi | | mg/dL | | 2.00 | 0.60 | | | | 3983 | Che | 2031 | |
| 6/12/2019 | | UREA | Chemi | | mg/dL | | 30.0 | 8.00 | | | | 3983 | Che | 2031 | |
| 6/12/2019 | | GLUCOS | Chemi | | mg/dL | | 135. | 67.0 | | | | 3983 | Che | 2031 | |

Sample Profile

Patient ID: 1805290160
 Patient Name:
 Analyzed: 05/29/2018 06:39:12 PM
 Analyzer ID: Z31C12020
 Sample Type: Venous
 Panel: Critical Care
 Operator: 123456
 Releaser: auto

B6

5/29/2018 6:35 PM
 NOVA RECHECK PANEL-ICU
 Lithium Heparin

Required Fields

Optional Fields

Measured

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

B6

Calculated

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

*PCW: 40%
 T3: 7.8*

From: [REDACTED] **B6**
To: [REDACTED] **B6** SVM Stern SVM Stern Laboratory; Jones, Jennifer L; Peloquin, Sarah
Sent: 3/2/2019 2:15:44 AM
Subject: [REDACTED] **B6** 800.267-FDA Case Investigation for [REDACTED] **B6** (EON-365526)

[https://www.dropbox.com/\[REDACTED\]](https://www.dropbox.com/[REDACTED]) **B6**

Above is the DROPBOX LINK for the recent followup echocardiogram study for [REDACTED] **B6** performed 2/28/2019.

Regards,

[REDACTED] **B6**

--

B6

From: Jones, Jennifer L </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0f6ca12eaa9348959a4cbb1e829af244-Jennifer.Jo>
To: [REDACTED] B6
Sent: 3/4/2019 12:19:53 PM
Subject: RE: [REDACTED] B6 800.267-FDA Case Investigation for [REDACTED] B6 (EON-365526)

Good morning [REDACTED] B6
Thank you for sharing the copy of [REDACTED] B6 repeat echo. Because of security, I'm not allowed to access dropbox. Are you able to send a PDF copy? I'm sorry for the inconvenience.
Thank you,
Jen

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



From: [REDACTED] B6
Sent: Friday, March 01, 2019 9:16 PM
To: [REDACTED] B6 <[REDACTED]@ucdavis.edu>; SVM Stern SVM Stern Laboratory <sterngenetics@ucdavis.edu>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>
Subject: [REDACTED] B6 800.267-FDA Case Investigation for [REDACTED] B6 (EON-365526)

[https://www.dropbox.com/\[REDACTED\] B6](https://www.dropbox.com/[REDACTED] B6)

Above is the DROPBOX LINK for the recent followup echocardiogram study for [REDACTED] B6 performed 2/28/2019.

Regards,
[REDACTED] B6

[REDACTED] B6

From: [REDACTED] B6
To: Jones, Jennifer L
Sent: 4/2/2019 1:17:27 AM
Subject: Re: [REDACTED] B6 800.267-FDA Case Investigation for [REDACTED] B6 (EON-365526)
Attachments: [REDACTED] B6.pdf

Hello Jennifer,
Attached is a PDF for [REDACTED] B6 second cardiac exam.

[REDACTED] B6

On Mon, Apr 1, 2019 at 12:25 PM Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov> wrote:

Thank you again for speaking with me, [REDACTED] B6 I appreciate you attaching a .pdf copy of [REDACTED] B6 recent echocardiogram to the email.

Take care,

Jen

Jennifer Jones, DVM

Veterinary Medical Officer

Tel: 240-402-5421



From: Jones, Jennifer L

Sent: Monday, March 04, 2019 7:20 AM

To: [REDACTED] B6

Subject: RE: Buster Ozment 800.267-FDA Case Investigation for [REDACTED] B6

Good morning [REDACTED] B6

Thank you for sharing the copy of [REDACTED] B6 repeat echo. Because of security, I'm not allowed to access dropbox. Are you able to send a PDF copy? I'm sorry for the inconvenience.

Thank you,

Jen

Jennifer Jones, DVM

Veterinary Medical Officer



From: [redacted] **B6**

Sent: Friday, March 01, 2019 9:16 PM

To: [redacted] **B6** @ucdavis.edu>; SVM Stern SVM Stern Laboratory <sterngenetics@ucdavis.edu>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>

Subject: [redacted] **B6** 800.267-FDA Case Investigation for [redacted] **B6**

[https://www.dropbox.com/\[redacted\]](https://www.dropbox.com/[redacted]) **B6**

Above is the DROPBOX LINK for the recent followup echocardiogram study for [redacted] **B6** performed 2/28/2019.

Regards,

[redacted] **B6**

--

[redacted] **B6**

--

[redacted] **B6**

B6

B6

| | | | |
|-----------------------------------|----------------------|----------------------|--------------------------------------|
| Owner Name: B6 | Pet Name: B6 | Date: 2/28/19 | Referring Veterinarian: B6 |
| Current Medications: B6 | Species: Canine | Age: 13 years | Weight: 86# 39 kg |
| | Breed: Golden Doodle | Sex: MN | |

History: 9/6/18 dx DCM, ? dietary had been on kangaroo diet , changed diet, added taurine supplementation, recheck laryngeal paralysis; neuropathy

Physical Findings: no cardiac murmur; pulse deficits; IBD is worse

Radiographs:

| | | |
|--------------------------------|--|--|
| Cardiomegaly: <i>n/a n/a</i> | Pulmonary edema: <i>n/a n/a</i> | Pleural Effusion: <i>n/a</i> |
| Atrial enlargement: <i>n/a</i> | Anterior Pulmonary Vessels: <i>n/a</i> | Hepatomegaly: <i>n/a</i> Splénomegaly: <i>n/a</i> |
| | | Trachea: <i>n/a</i> |

Laboratory Findings:

| | | | | | | | | | |
|-----|-----|-----|-------------|--------------|-------------|------------------------|----------|------------|--------|
| HCT | TP | WBC | Neutrophils | Lymph | other | Platelets | BUN | Creatinine | BG |
| ALT | AST | AP | GGT | T. Bilirubin | Cholesterol | Bile Acids Pre Post | | Amyl | Lipase |
| Na | Ca | K | Phos | Cl | Tri | Albumin | Globulin | Thyroid | CPK |

ECG Findings:

| | | | | |
|---------------|----------------------|--------------|-----------------|----------------|
| Rhythm: sinus | Rate: 112 bpm | P: B6 | PR: B6 | QRS: B6 |
| ST: B6 | QT: B6 | T: B6 | Axis: B6 | BP: B6 |

Occasional VPCs of right ventricular origin. ECG is otherwise normal. P waves are no longer wide. QRS is still wide (could be normal for Buster or indicates damage to the conduction system). Axis has changed from 60 degrees to 90 degrees. Blood pressure is normal.

Echo Findings

| | | | | |
|--------------------------------|----------------|------------------|---------------------|------------------|
| Canine Chart in mm 35 kg chart | EF: B6 | RVd: B6 | LA/AO (B6) | LA/AO: B6 |
| IVSd: B6 | LVd: B6 | LVPWd: B6 | LAD: B6 | FS: B6 |
| IVSs | LVs: B6 | LVPWs: B6 | Ad: B6 | EPSS: B6 |

B6

B6

| | | | |
|-------------------------------|------|-------------------------------|-------------------------------|
| Long Axis: B6 | | Pulmonary v-max B6 | Aortic v-max B6 |
| Tricuspid v-max B6 | LVOT | Mitral v-max B6 | Insufficiency v-max B6 |
| Insufficiency v-max B6 | | Insufficiency v-max B6 | |

| | | |
|-----------------------|---------------------|-----------------|
| Owner Name: B6 | Pet Name: B6 | Date: 2/28/2019 |
|-----------------------|---------------------|-----------------|

Cardiac study shows: All cardiac measurements are now in the normal range, **B6** is not considered to be a dilated cardiomyopathy at this time. This suggests that Taurine deficiency was the cause of the DCM. Note that the tricuspid forward flow is elevated but tricuspid regurgitation is mild and not causing a pulmonary hypertension. I suspect that the laryngeal paralysis is contributing to elevated right atrial pressure. The occasional VPCs of right ventricular origin may also be related to laryngeal paralysis and hypoxia. **B6** panting may also be due to laryngeal paralysis. Watch for coughing as a sign of pneumonia. For now, I recommend continuing cardiac medications. Long term prognosis is still guarded but more due to the laryngeal paralysis.

Recommendations:

B6

| | | |
|-------------------------------|-------------|--------------------|
| Recommend repeat radiographs: | Repeat ECG: | Repeat Ultrasound: |
|-------------------------------|-------------|--------------------|

B6

B6

B6

| | | |
|-----------------------|------------------------|--|
| Repeat blood profile: | Repeat Blood Pressure: | |
|-----------------------|------------------------|--|

B6

B6

B6

Acct Number:
Address:
Phone:
Cell Phone:

B6

B6

Medical Alert:
Sex: M
DOB: B6
Species: Canine
Microchip #:

Weight: 166.5lbs.
Breed: Great Dane

| Problem | Date | Diagnosis | Date | Vaccine Name | Date Due |
|---------|------|-----------|------|--------------|----------|
| | | | | B6 | |

B6 B6

CHF: Probable DCM

Breathing has been slightly off for a couple days . Tonight having trouble breathing and abdomen is a bit distended.
DCM has been noted in several littermates.

2 year old male/castrated Great Dane
Recently had taurine level tested and found to be normal.
Diet has been Taste of the Wild Grain Free

QARH, slightly ataxic? MM slightly pale pk B6
H/L: No murmur noted. Irregular tachyarrhythmia noted (difficult to auntify HR on auscult but is >200 bpm).
lungs: no crackles noted but increased effort, irregular and poor FPs.

B6

Tachyarrhythmia with HR > 200 bpm, ECG consistent with atrial fibrillation
Cardiomegaly consistent with DCM
CHF (right and left)

Cannot r/o at least partial relation to GF diet/taurine deficiency (likely more complicated: diet-genetics, etc)

Recommend in referral to cardiologist for consult when a bit more stable
for tonight will hospitalize
submit baseline cbc/chem

B6

[B6]

[B6]

[B6]

[B6] respiratory effort and general attitude greatly improved after about 3 hours of hospitalization
[B6] is available for Cardio-consult here on Friday. [B6] however may recommend referral to Tufts
cardiology to proceed with consult and further treatment more rapidly.

7:05am: Phone: Mrs called for an update. [B6] was not available, gave tech update: ate breakfast, resting ok, r
has been ok, no effort recently. Let owner know [B6] will call with an update this a.m.. owner will be tx to
Tufts//alm

[B6] spoke with owner, owner will come in to pick up and transfer to Tufts through the ICU this morning
called and spoke with ICU and discussed [B6] and hx of other puppies with DCM in litter as well as
dietary hx.
Plan to email record, rads, treatment sheet, and ECG copies to tufts at ter-icu@tufts.edu
Transfer with [B6] in place.

For any questions regarding [B6] health, please call [B6]
Anesthesia and medical treatment records are archived in a separate area. Please see hospital staff for assistance.

[B6]

Soap Text Created By - Veterinarian: Clinician, Unassigned FHSA - Updated on: **B6** 11:55:45 AM
By: **B6** 01

Subjective

NEW VISIT (ER)

Doctor: **B6** DVM

Student: **B6**

Presenting complaint: DCM, CHF

Referral visit? Yes

Diagnostics completed prior to visit:

CBC: NSF

Chem: TP 4.7 [L], otherwise NSF

Taurine level **B6** (UC Davis)

EKG (a-fib)

HISTORY:

Signalment: 2 y.o CM Great Dane

Current history:

Owners report 1 month of respiratory distress, worse over the past week. Patient has a decreased energy level at home and decreased appetite but increased drinking. Has been on grain free diet since birth.

Switched to Purina Proplan Sensitive Skin and Stomach 1 month ago. Littermate has been diagnosed with DCM and is being seen by **B6** in cardiology.

Prior medical history **B6**

Current medications: **B6**

Diet: Purina Proplan Sensitive Skin and Stomach

Vaccination status/flea & tick preventative use: UTD

Travel history: None

EXAM:

B6

C/V: Irregularly irregular rhythm, no murmur appreciated, SSFP

B6

ASSESSMENT:

A1: Atrial fibrillation

A2: DCM

PLAN:

B6

Diagnostics completed:

1. TFAST: decreased cardiac contractility

2: **B6**

Diagnostics pending:

none

Client communication:

Discussed hosp for supp care, monitoring, cardio consult. Will be transferred to cardio in the morning and they will call ~10am-noon.

Deposit & estimate status: **B6**

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

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

Soap Text Created By - Veterinarian: Clinician, Unassigned FHSA - Updated on: **B6** 6:04:36 AM By:

B6 01

Subjective

HISTORY

Signalment: 2yo CM Great Dane

Current History: **B6** presented to the ER yesterday **B6** for evaluation of his DCM, atrial fibrillation, and secondary CHF diagnosed at his rDVM. Os report 1 month of respiratory distress, worse over the past week. Patient has a decreased energy level at home and decreased appetite but increased drinking. Littermate has been diagnosed with DCM and is being seen by **B6** in cardiology.

Prior medical history: **B6**

Current medications: **B6**

Diet: Taste of the Wild Grain free diet since birth but switched to Purina Proplan Sensitive Skin and Stomach 1 month ago

Vaccination status/flea & tick preventative use: UTD

Travel history: None

DIAGNOSTICS.COMPLETED

rDVM **B6**

B6

--EKG (a-fib)

--Meds when hospitalized prior to transfer:

B6

Tufts ER: **B6**

--TFAST: decreased cardiac contractility

--**B6**

--Cardio consult:

Echo: LV dilation with severe systolic dysfunction. LA is markedly enlarged. Decrease coaptation of MV leaflets. RV and RA are dilated. Moderate amount of pleural effusion. No pericardial effusion is appreciated. Findings consistent with advanced DCM with active CHF. Severe LV dilation with systolic dysfunction is observed. **B6**

B6

during hospitalization. As patient has hx of grain free diet, Taurine levels should be performed and normal stream brand diet should be continued.

ECG: Rapid irregularly irregular rhythm consistent with atrial fibrillation.

OVERNIGHT UPDATE- RR 24-32 and eupneic. HR at 7:30p decreased from the above 200bpm range to 140-

194bpm. In Atrial fibrillation overnight with occasional VPCs. Temp WNL (100.2-101). 2+ soft stool then liquid, 3+-5+ urine 6X. Was not offered food overnight because no food orders. Weight changed from 71.6-70kg.

EXAM, cardiology

B6

Hydration: Moderate dehydration- delayed skin tent and tacky mucous membranes.

Overall impression since arrival or since last exam: Consistent from yesterday though has been having malignant ventricular rhythms

Appetite: Ate 1/2 can Purina EN this morning with immediate interest.

(O)

B6

Heart: Irregularly irregular rhythm consistent with atrial fibrillation. II/VI murmur. Heart sounds mildly muffled. Femoral pulses irregular with varying intensity. mm pigmented, tacky. Unable to assess crt.

B6

MEDICATIONS

B6

ASSESSMENTS

A1: DCM with active CHF

A2: Atrial fibrillation

A3: Moderate dehydration- r/o too much **B6** vs. not drinking

PLAN

P1:

B6

P1:

P2:

P3:

SOAP completed by **B6**, V'19

SOAP reviewed by:

Soap Text Created By - Veterinarian: Clinician, Unassigned FHSA - Updated on: [B6] 6:01:07 AM By: [B6] 01

Subjective

HISTORY

Signalment: 2yo CM Great Dane

Current History: [B6] presented to the ER two days ago [B6] for evaluation of his DCM, atrial fibrillation, and secondary CHF diagnosed at his rDVM. Os report 1 month of respiratory distress, worse over the past week. Patient has a decreased energy level at home and decreased appetite but increased drinking. O reports her friend has a littermate of [B6] called [B6] who was previously on a grain-free diet that has mitral valve dysplasia and is being seen by [B6] in cardiology.

Prior medical history: [B6]

Current medications: [B6]

Diet: Taste of the Wild Grain free diet since birth but switched to Purina Proplan Sensitive Skin and Stomach 1 month ago

Vaccination status/flea & tick preventative use: UTD

Travel history: None

DIAGNOSTICS COMPLETED

rDVM [B6]

[B6]

--Taurine level [B6] (UC Davis)

--EKG (a-fib)

--Meds when hospitalized prior to transfer:

[B6]

Tufts ER: [B6]

--TFAST: decreased cardiac contractility

-- [B6]

--Cardio consult:

Echo: LV dilation with severe systolic dysfunction. LA is markedly enlarged. Decrease coaptation of MV leaflets. RV and RA are dilated. Moderate amount of pleural effusion. No pericardial effusion is appreciated. Findings consistent with advanced DCM with active CHF. Severe LV dilation with systolic dysfunction is observed. [B6]

[B6]

ECG: Rapid irregularly irregular rhythm consistent with atrial fibrillation.

Tufts

B6

B6

OVERNIGHT UPDATE- HR went down to 110 once overnight but the rest of the time it was around 160bpm. RR was 22-34 with no effort (34 is slightly increased form his previous normal of 26/min, though it is still normal). Has lost 2.8kg since admission to hospital. Not interested in O's food overnight but ate 1 can proplan very well. Urination overnight had a poor, intemittent stream.

EXAM, cardiology

B6

Overall impression since arrival or since last exam: RR mildly worse from yesterday- possibly due to half of previous lasix dose

Appetite: No interest in O food but ate purina proplan well

(O)

B6

Heart: Irregularly irregular rhythm consistent with atrial fibrillation. II/VI murmur. Femoral pulses irregular with varying intensity. mm pigmented, tacky. Unable to assess crt.

B6

MEDICATIONS

B6

ASSESSMENTS

A1: DCM with active CHF

A2: Atrial fibrillation with occasional malignant ventricular rhythm

Plan

P1:

B6

DIAGNOSTICS COMPLETED

-Fluid check- moderate free fluid still present in abdomen though slightly improved from yesterday

-Telemetry: One episode of malignant ventricular arrhythmia at 9:24 pm (last dose of **B6** was at 8pm prior to that). Another episode at 8am.

-Chem **B6**

SOAP completed by: **B6** V'19

SOAP reviewed by:

From: Jones, Jennifer L </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0f6ca12eaa9348959a4cbb1e829af244-Jennifer.Jo>
To: Rotstein, David; Palmer, Lee Anne; Carey, Lauren
CC: Peloquin, Sarah
Sent: 12/11/2018 7:50:14 PM
Subject: RE: 800.267-cc-165-EON-365610; **B6** Taste of the Wild Prey Beef dry
Attachments: MRx.zip

B6 -2 yr MC Great Dane

9/11/2018: breathing off, dyspnea, abdominal distention, DCM in several littermates, recent Tau normal
PE: slt ataxia?, slt pale pk mm, BCS 6/9, irreg tachyarrhyth, HR > 200 bpm, slt abd distention
CBC/Chem: **B6**

cardiomeg, CHF

Tau-Davis: **B6**

Tx: **B6**

9/12/2018 cardio eval: GF diet since birth; **B6**

PE: **B6** harsh tracheal sounds on expiration, irreg irreg rhythm;

TFAST-dec contractility, AFAST: mod FF; Afib on EKG

9/12 cardio consult: 1 mo hx resp distress worse in past wk, dec energy, hyporexia, PD; litter mate dx w/ DCM; was on TOW GF but switched to Purina ProPlan Sensitive Skin & Stomach 1 month ago;

PE-mild mm loss, 180-210 bpm, Gr III/VI L apical, fair variable pulses, premature beats, intermitt gallup, mild dyspnea, abd distention w/ mild ascites; mod dehydration

ECG-Afib w/ occ V arrhyth (malignant)

Echo-DCM 9LV dil w/ sev sys dysfxn, LA mark enl, dec coapt of MV, RV/RA dil) w/ CHF, mod pl eff and ascites, +2 MR, +1 TR

Tx: **B6**

9/13: Chem-Na **B6**, AST **B6**; free fluid in abd/thorax mod improved

9/14: Chem-Cl **B6**, K **B6**, AST **B6**

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



From: Rotstein, David

Sent: Sunday, September 16, 2018 11:54 AM

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

Subject: Fwd: Taste of the Wild Prey Beef dry (will provide full diet history): Lisa Freeman - EON-365610

From: PFR Event <preventioncreation@fda.hhs.gov>

Date: September 16, 2018 at 11:44:32 AM EDT

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

Subject: Taste of the Wild Prey Beef dry (will provide full diet history): Lisa Freeman - EON-365610

A PFR Report has been received and PFR Event [EON-365610] has been created in the EON System.

A "PDF" report by name "2054966-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 "2054966-attachments.zip" and is attached to this email notification.

Below is the summary of the report:

EON Key: EON-365610

ICSR #: 2054966

EON Title: PFR Event created for Taste of the Wild Prey Beef dry (will provide full diet history), 4Health beef stew canned; 2054966

| | | | |
|--------------------------|--------------------|---------------------------|--------|
| AE Date | 09/12/2018 | Number Fed/Exposed | 2 |
| Best By Date | | Number Reacted | 1 |
| Animal Species | Dog | Outcome to Date | Stable |
| Breed | Great Dane | | |
| Age | B6 Years | | |
| District Involved | PFR-New England DO | | |

Product information

Individual Case Safety Report Number: 2054966

Product Group: Pet Food

Product Name: Taste of the Wild Prey Beef dry (will provide full diet history), 4Health beef stew canned

Description: DCM and CHF. had been having respiratory signs for ~1 month prior to diagnosis at Tufts Littermate is: B6 (already reported by owner after being diagnosed with DCM and CHF in July 2018) Owner has another Great Dane at home (~1 year of age) eating the same diet that will be screened soon Owner approved submission of this report and talking to FDA Will send rest of medical records by email (sorry - too many to upload)

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: 2

Number of Animals Reacted With Product: 1

| Product Name | Lot Number or ID | Best By Date |
|--|-------------------------|---------------------|
| Taste of the Wild Prey Beef dry (will provide full diet history) | | |
| 4Health beef stew canned | | |

Sender information

Lisa Freeman
200 Westboro Rd
North Grafton, MA 01536
USA

Owner information

B6

B6

USA

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

<https://eon.fda.gov/eon//browse/EON-365610>

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&issuelid=382429>

=====
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.

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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.

Catalyst Dx, ProCyle Dx
 Date Performed: 09/11/2018 09:48 PM

Patient Info:
 ID: **B6**
 Name:
 Owner: **B6**
 Provider: 26

Species: Canine
 Breed: Great Dane
 Birthdate: **B6**
 Sex: MN

Clinic:
B6

IVLS-20180911_213512_74864.pdf

| | | |
|----------|-----------|-----------------------------|
| GLU | | 74-143 mg/dL |
| CREA | | 0.5-1.8 mg/dL |
| BUN | | 7-27 mg/dL |
| BUN/CREA | | |
| PHOS | | 2.5-6.8 mg/dL |
| CA | | 7.9-12.0 mg/dL |
| TP | | 5.2-8.2 g/dL |
| ALB | | 2.3-4.0 g/dL |
| GLOB | | 2.5-4.5 g/dL |
| ALB/GLOB | | |
| ALT | | 10-125 U/L |
| ALKP | | 23-212 U/L |
| GGT | B6 | 0-11 U/L |
| TBIL | | 0.00-9 mg/dL |
| CHOL | | 110-320 mg/dL |
| AMYL | | 500-1500 U/L |
| LIPA | | 200-1800 U/L |
| Na | | 144-180 mmol/L |
| K | | 3.5-5.8 mmol/L |
| Na/K | | |
| Cl | | 109-122 mmol/L |
| Osm Calc | | mmol/kg |
| RBC | | 5.65-8.87 M ³ /L |
| HCT | | 37.3-61.7% |
| HGB | | 13.1-20.5 g/dL |

B6

| | | | |
|-----------|-----------|---------------------|-----------|
| MCV | | 61.6-73.5fL | |
| MCH | | 21.2-25.9pg | |
| MCHC | | 32.0-37.9g/dL | |
| RDW | | 13.6-21.7% | |
| %RETIC | | % | |
| RETIC | | 10.0-110.0K μ L | |
| RETIC-HGB | | 22.3-29.6pg | |
| WBC | | 5.05-16.76K μ L | |
| %NEU | | % | |
| %LYM | | % | |
| %MONO | | % | |
| %EOS | B6 | % | B6 |
| %BASO | | % | |
| NEU | | 2.95-11.64K μ L | |
| LYM | | 1.05-5.10K μ L | |
| MONO | | 0.16-1.12K μ L | |
| EOS | | 0.06-1.23K μ L | |
| BASO | | 0.00-0.10K μ L | |
| nRBC | | | |
| PLT | | 148-484K μ L | |
| MPV | | 8.7-13.2fL | |
| PDW | | 9.1-19.4fL | |
| PCT | | 0.14-0.46% | |

B6

B6

B6

Acct Number: **B6** Patient ID: A
Address: **B6**
Phone: () - ext:
Cell Phone: () - ext:

Medical Alert:
Sex: M/N
DOB: **B6**
Species: Canine
Microchip #:
Weight: 166.5lbs.
Breed: Great Dane

| Problem | Date | Diagnosis | Date | Vaccine Name | Date Due |
|-----------|-----------|-----------|------|--------------|----------|
| B6 | B6 | D.V.M. | | B6 | |

CHF: ~~Probable DCM~~

Breathing has been slightly off for a couple days . Tonight having trouble breathing and abdomen is a bit distended.
DCM has been noted in several littermates.

2 year old male/castrated Great Dane
Recently had taurine level tested and found to be normal.
Diet has been Taste of the Wild Grain Free

QARH, slightly ataxic? MM slightly pale pk. **B6**
H/L: No murmur noted. Irregular tachyarrhythmia noted (difficult to auntify HR on auscult but is >200 bpm).
lungs: no crackles noted but increased effort, irregular and poor FPs.

B6

Tachyarrhythmia with HR > 200 bpm, ECG consistent with atrial fibrillation
Cardiomegaly consistent with DCM
CHF (right and left)

Cannot r/o at least partial relation to GF diet/taurine deficiency (likely more complicated: diet-genetics, etc)

Recommend in referral to cardiologist for consult when a bit more stable
for tonight will hospitalize
submit baseline cbc/chem

B6

B6

al lead II consistent with A-10 with PR approximately B6 bpm!!

B6

B6 respiratory effort and general attitude greatly improved after about 3 hours of hospitalization

B6 is available for Cardio-consult here or B6 however may recommend referral to Tufts cardiology to proceed with consult and further treatment more rapidly.

7:05am: Phone: Mrs called for an update. B6 was not available, gave tech update: ate breakfast, resting ok, r has been ok, no effort recently. Let owner know B6 will call with an update this a.m.. owner will be tx to Tufts/ B6

B6 spoke with owner, owner will come in to pick up and transfer to Tufts through the ICU this morning
B6 called and spoke with ICU and discussed B6 and hx of other puppies with DCM in litter as well as dietary hx.

Plan to email record, rads, treatment sheet, and ECG copies to tufts at ter-icu@tufts.edu

Transfer with B6 in place.

For any questions regarding B6 health, please call B6

Anesthesia and medical treatment records are archived in a separate area. Please see hospital staff for assistance.

B6

Page 2 of 2

Soap Text Created By - Veterinarian: Clinician, Unassigned FHSA - Updated on: B6 11:55:45 AM

By: B6

Subjective

NEW VISIT (ER)

Doctor: B6 DVM

Student: B6

Presenting complaint: DCM, CHF

Referral visit? Yes

Diagnostics completed prior to visit:

CBC: NSF

Chem: B6, otherwise NSF

Taurine level: B6 (UC Davis)

EKG (a-fib)

HISTORY:

Signalment: 2 y.o CM Great Dane

Current history:

Owners report 1 month of respiratory distress, worse over the past week. Patient has a decreased energy level at home and decreased appetite but increased drinking. Has been on grain free diet since birth.

Switched to Purina Proplan Sensitive Skin and Stomach 1 month ago. Littermate has been diagnosed with DCM and is being seen by B6 in cardiology.

Prior medical history: B6

Current medications: B6

Diet: Purina Proplan Sensitive Skin and Stomach

Vaccination status/flea & tick preventative use: UTD

Travel history: None

EXAM:

B6

C/V: Irregularly irregular rhythm, no murmur appreciated, SSFP

RESP: normal bv sounds bilaterally, no crackles or wheezes

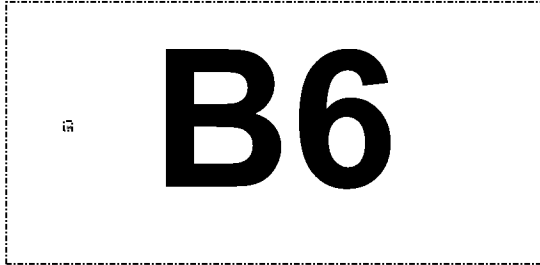
B6

ASSESSMENT:

A1: Atrial fibrillation

A2: DCM

PLAN:



Diagnostics completed:

1. TFAST: decreased cardiac contractility
2. AFAST: mod FF

Diagnostics pending:

none

Client communication:

Discussed hosp for supp care, monitoring, cardio consult. Will be transfered to cardio in the morning and they will call ~10am-noon.

Deposit & estimate status:

Resuscitation code (if admitting to ICU):

SOAP approved (DVM to sign): DVM

Soap Text Created By - Veterinarian: Clinician, Unassigned FHSA - Updated on: **B6** 6:04:36 AM By:

B6

Subjective

HISTORY

Signalment: 2yo CM Great Dane

Current History: **B6** presented to the ER yesterday **B6** for evaluation of his DCM, atrial fibrillation, and secondary CHF diagnosed at his rDVM. Os report 1 month of respiratory distress, worse over the past week. Patient has a decreased energy level at home and decreased appetite but increased drinking. Littermate has been diagnosed with DCM and is being seen by **B6** in cardiology.

Prior medical history: **B6**

Current medications: **B6**

Diet: Taste of the Wild Grain free diet since birth but switched to Purina Proplan Sensitive Skin and Stomach 1 month ago

Vaccination status/flea & tick preventative use: UTD

Travel history: None

DIAGNOSTICS COMPLETED

rDVM: **B6**

--CBC: NSF

--Chem: **B6**

--Taurine level: **B6** (UC Davis)

--EKG (a-fib)

--Meds when hospitalized prior to transfer:

B6

Tufts ER: **B6**

--TFAST: decreased cardiac contractility

--AFAST: mod FF

--Cardio consult:

Echo: LV dilation with severe systolic dysfunction. LA is markedly enlarged. Decrease coaptation of MV leaflets. RV and RA are dilated. Moderate amount of pleural effusion. No pericardial effusion is appreciated. Findings consistent with advanced DCM with active CHF. Severe LV dilation with systolic dysfunction is observed. **B6** are recommended. Tachycardic irregularly irregular consistent with AFib worsens CHF as decrease overall cardiac output from loss of atrial contraction and fast ventricular rate. Recommend to control ventricular rate with **B6** sustained-release and keep patient under telemetry monitoring during hospitalization to evaluate response to treatment. As systemic arterial pressure was estimated at 90mmHg in the echo, recommend check blood pressure in case patient shows signs of lethargy after the administration of **B6**. Recommend check kidney levels in daily basis during hospitalization. As patient has hx of grain free diet, Taurine levels should be performed and normal stream brand diet should be continued.

ECG: Rapid irregularly irregular rhythm consistent with atrial fibrillation.

OVERNIGHT UPDATE- RR 24-32 and eupneic. HR at 7:30p decreased from the above 200bpm range to 140-

194bpm. In Atrial fibrillation overnight with occasional VPCs. Temp WNL (100.2-101). 2+ soft stool then liquid, 3+-5+ urine 6X. Was not offered food overnight because no food orders. Weight changed from 71.6-70kg.

EXAM, cardiology

(S)

B6

Mentation: QAR

Hydration: Moderate dehydration- delayed skin tent and tacky mucous membranes.

Overall impression since arrival or since last exam: Consistent from yesterday though has been having malignant ventricular rhythms

Appetite: Ate 1/2 can Purina EN this morning with immediate interest.

(O)

B6

Heart: Irregularly irregular rhythm consistent with atrial fibrillation. II/VI murmur. Heart sounds mildly muffled. Femoral pulses irregular with varying intensity. mm pigmented, tacky. Unable to assess crt. Lungs: Normal bronchovesicular sounds OU. No crackles or wheezes ausculted.

B6

MEDICATIONS

B6

ASSESSMENTS

A1: DCM with active CHF

A2: Atrial fibrillation

A3: Moderate dehydration- r/o too much furosemide vs. not drinking

PLAN

P1:

P1:

P2:

P3:

B6

SOAP completed by: **B6** V'19

SOAP reviewed by:

Soap Text Created By - Veterinarian: Clinician, Unassigned FHSA - Updated on [B6] 6:01:07 AM By:

[B6]

Subjective

HISTORY

Signalment: 2yo CM Great Dane

Current History: [B6] presented to the ER two days ago [B6] for evaluation of his DCM, atrial fibrillation, and secondary CHF diagnosed at his rDVM. Os report 1 month of respiratory distress, worse over the past week. Patient has a decreased energy level at home and decreased appetite but increased drinking. O reports her friend has a littermate of [B6] called [B6] who was previously on a grain-free diet that has mitral valve dysplasia and is being seen by [B6] in cardiology.

Prior medical history: [B6]

Current medications: [B6]

Diet: Taste of the Wild Grain free diet since birth but switched to Purina Proplan Sensitive Skin and Stomach 1 month ago

Vaccination status/flea & tick preventative use: UTD

Travel history: None

DIAGNOSTICS COMPLETED

rDVM: [B6]

--CBC: NSF

--Chem: [B6]

--Taurine level: [B6] (UC Davis)

--EKG (a-fib)

--Meds when hospitalized prior to transfer:

B6

Tufts ER: [B6]

--TFAST: decreased cardiac contractility

--AFast: mod FF

--Cardio consult:

Echo: LV dilation with severe systolic dysfunction. LA is markedly enlarged. Decrease coaptation of MV leaflets. RV and RA are dilated. Moderate amount of pleural effusion. No pericardial effusion is appreciated. Findings consistent with advanced DCM with active CHF. Severe LV dilation with systolic dysfunction is observed. [B6] are recommended. Tachycardic irregularly irregular consistent with AFib worsens CHF as decrease overall cardiac output from loss of atrial contraction and fast ventricular rate. Recommend to control ventricular rate with [B6] sustained-release and keep patient under telemetry monitoring during hospitalization to evaluate response to treatment. As systemic arterial pressure was estimated at 90mmHg in the echo, recommend check blood pressure in case patient shows signs of lethargy after the administration of [B6]. Recommend check kidney levels in daily basis during hospitalization. As patient has hx of grain free diet, Taurine levels should be performed and normal stream brand diet should be continued.

ECG: Rapid irregularly irregular rhythm consistent with atrial fibrillation.

Tufts **B6**

--Chem: **B6**

--PCV/Ts

--Fluid check: Free fluid in abdomen and thorax moderately improved

OVERNIGHT UPDATE- HR went down to 110 once overnight but the rest of the time it was around 160bpm. RR was 22-34 with no effort (34 is slightly increased form his previous normal of 26/min, though it is still normal). Has lost 2.8kg since admission to hospital. Not interested in O's food overnight but ate 1 can proplan very well. Urination overnight had a poor, intemittent stream.

EXAM, cardiology

(S) **B6**

Mentation: QAR

Hydration: mm tacky and delayed skin tent- moderate dehydration

Overall impression since arrival or since last exam: RR mildly worse from yesterday- possibly due to half of previous lasix dose

Appetite: No interest in O food but ate purina proplan well

(O)

B6

Heart: Irregularly irregular rhythm consistent with atrial fibrillation. II/VI murmur. Femoral pulses irregular with varying intensity. mm pigmented, tacky. Unable to assess crt.

Lungs: Normal bronchovesicular sounds OU. No crackles or wheezes ausculted.

B6

MEDICATIONS

B6

ASSESSMENTS

A1: DCM with active CHF

A2: Atrial fibrillation with occasional malignant ventricular rhythm

Plan

P1: **B6**

DIAGNOSTICS COMPLETED

-Fluid check- moderate free fluid still present in abdomen though slightly improved from yesterday

-Telemetry: One episode of malignant ventricular arrhythmia at 9:24 pm (last dose of [B6] was at 8pm prior to that). Another episode at 8am.

-Chem [B6]

SOAP completed by: [B6] V'19

SOAP reviewed by:

From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
To: Jones, Jennifer L
Sent: 9/7/2018 8:45:52 PM
Subject: [REDACTED] 2054747
Attachments: cadio appt [REDACTED].pdf; cardio appt [REDACTED].pdf; cardio appt [REDACTED].pdf; cardio appt [REDACTED].pdf; cardio appt [REDACTED].pdf; cardio consult [REDACTED].pdf; cardio discharge [REDACTED].pdf; cardio discharge [REDACTED].pdf; cardio discharge [REDACTED].pdf; cardio discharge [REDACTED].pdf; discharge [REDACTED].pdf; labwork.pdf; rdvm 6-26-17 to 5-17-18.pdf; rdvm 7-26-16-12-2-16.pdf; rdvm 2015-2016.pdf; taurine.pdf; XtraReport.pdf

Your initial Pet Food Safety Report , Submitted by: Lisa Freeman, ID 242759, was successfully submitted on 9/7/2018 4:41:17 PM EST to the FDA, and it was issued an Individual Case Safety Report Number (ICSR) of 2054747.

Hi Jen

Here are the rest of [REDACTED] records (too many to upload individually). Just talked the owner and despite starting to wean him off meds, he's doing great!

Thanks

Lisa

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

Lab Work
for **B6**

| Date/Time | Patient | Description | Type | Results | Unit/Meas | Ref Res | High | Low | Notes | Technician | Hospital | Accession | File No | Case Id | Bag Num |
|-------------------------|---------|-------------|------|---------|-----------|---------|------|------|-------|------------|----------|-----------|---------|---------|---------|
| Accession ID: B6 | | | | | | | | | | | | | | | |
| | | FI02 | NOVA | | % | 21% (r | 0.00 | 0.00 | | | | | | | |
| | | NOVA SA | NOVA | | | Venou | 0.00 | 0.00 | | | | | | | |
| | | A | NOVA | | mmHg | | 0.00 | 0.00 | | | | | | | |
| | | HCO3 | IRMA | | mmol/ | | 24.0 | 18.0 | | | | | | | |
| | | BEb | NOVA | | mmol/ | | 0.00 | 0.00 | | | | | | | |
| | | BEecf | NOVA | | mmol/ | | 0.00 | 0.00 | | | | | | | |
| | | CA/MG | NOVA | | mol/m | | 0.00 | 0.00 | | | | | | | |
| | | GAP | NOVA | | mmol/ | | 0.00 | 0.00 | | | | | | | |
| | | nMG | NOVA | | mmol/ | | 0.00 | 0.00 | | | | | | | |
| | | nCA | NOVA | | mmol/ | | 0.00 | 0.00 | | | | | | | |
| | | TCO2 (P | NOVA | | mmol/ | | 0.00 | 0.00 | | | | | | | |
| | | CREAT (| NOVA | | mg/dL | | 2.10 | 0.20 | | | | | | | |
| | | BUN (PO | NOVA | | mg/dL | | 28.0 | 12.0 | | | | | | | |
| | | LACTATE | NOVA | | mmol/ | | 2.00 | 0.00 | | | | | | | |
| | | GLUCOS | NOVA | | mg/dL | | 120. | 80.0 | | | | | | | |
| | | MG (POC | NOVA | | mmol/ | | 0.40 | 0.10 | | | | | | | |
| | | CA (ioniz | NOVA | | mmol/ | | 1.38 | 1.17 | | | | | | | |
| | | CL(POC) | NOVA | | mmol/ | | 120. | 109. | | | | | | | |
| | | K (POC) | NOVA | | mmol/ | | 4.80 | 3.60 | | | | | | | |
| | | NA (POC | NOVA | | mmol/ | | 154. | 140. | | | | | | | |
| | | HB (POC | NOVA | | g/dL | | 16.0 | 12.6 | | | | | | | |
| | | HCT (PO | NOVA | | % | | 48.0 | 38.0 | | | | | | | |
| | | SO2% | NOVA | | % | | 100. | 94.0 | | | | | | | |
| | | PO2 | nova | | mmHg | | 100. | 80.0 | | | | | | | |
| | | PCO2 | IRMA | | mmHg | | 44.0 | 36.0 | | | | | | | |
| | | PH | IRMA | | | | 7.46 | 7.33 | | | | | | | |

| Accession ID: B6 | | | | | | | | | | | | | | | |
|-------------------------|-----------|---------|-------|-----------|------|--|------|------|--|-----------|-------|------|------|-----|--|
| B6 | B6 | PCV ** | PCV/T | B6 | % | | 0.00 | 0.00 | | B6 | Techn | Fost | 1984 | Non | |
| | | TS (FHS | PCV/T | | g/dl | | 0.00 | 0.00 | | | Techn | Fost | 1984 | Non | |

| Accession ID: B6 | | | | | | | | | | | | | | | |
|-------------------------|--|---------|------|--|-------|--------|------|------|--|--|--|--|--|--|--|
| | | FI02 | NOVA | | % | 21% (r | 0.00 | 0.00 | | | | | | | |
| | | NOVA SA | NOVA | | | Venou | 0.00 | 0.00 | | | | | | | |
| | | A | NOVA | | mmHg | | 0.00 | 0.00 | | | | | | | |
| | | HCO3 | IRMA | | mmol/ | | 24.0 | 18.0 | | | | | | | |
| | | BEb | NOVA | | mmol/ | | 0.00 | 0.00 | | | | | | | |
| | | BEecf | NOVA | | mmol/ | | 0.00 | 0.00 | | | | | | | |
| | | CA/MG | NOVA | | mol/m | | 0.00 | 0.00 | | | | | | | |

Lab Work
for **B6**

| Date/Time | Patient | Description | Type | Results | Unit/Meas | Res | High | Low | Notes | Technician | Hospital | Accession | File No | Case No | Tag Num |
|-----------|-----------|-------------|------|-----------|-----------|---------|-------|------|-------|------------|----------|-----------|---------|---------|---------|
| B6 | B6 | GAP | NOVA | B6 | mmol/ | | 0.00 | 0.00 | | B6 | Techn | Fost | 1985 | Nova | 9989 |
| | | nMG | NOVA | | mmol/ | | 0.00 | 0.00 | | | Techn | Fost | 1985 | Nova | 9989 |
| | | nCA | NOVA | | mmol/ | | 0.00 | 0.00 | | | Techn | Fost | 1985 | Nova | 9989 |
| | | TCO2 (P | NOVA | | mmol/ | | 0.00 | 0.00 | | | Techn | Fost | 1985 | Nova | 9989 |
| | | CREAT (| NOVA | | mg/dL | | 2.10 | 0.20 | | | Techn | Fost | 1985 | Nova | 9989 |
| | | BUN (PO | NOVA | | mg/dL | | 28.0 | 12.0 | | | Techn | Fost | 1985 | Nova | 9989 |
| | | LACTATE | NOVA | | mmol/ | | 2.00 | 0.00 | | | Techn | Fost | 1985 | Nova | 9989 |
| | | GLUCOS | NOVA | | mg/dL | uncalib | 120. | 80.0 | | | Techn | Fost | 1985 | Nova | 9989 |
| | | MG (POC | NOVA | | mmol/ | | 0.40 | 0.10 | | | Techn | Fost | 1985 | Nova | 9989 |
| | | CA (ioniz | NOVA | | mmol/ | | 1.38 | 1.17 | | | Techn | Fost | 1985 | Nova | 9989 |
| | | CL(POC) | NOVA | | mmol/ | | 120. | 109. | | | Techn | Fost | 1985 | Nova | 9989 |
| | | K (POC) | NOVA | | mmol/ | | 4.80 | 3.60 | | | Techn | Fost | 1985 | Nova | 9989 |
| | | NA (POC | NOVA | | mmol/ | | 154. | 140. | | | Techn | Fost | 1985 | Nova | 9989 |
| | | HB (POC | NOVA | | g/dL | | 16.0 | 12.6 | | | Techn | Fost | 1985 | Nova | 9989 |
| | | HCT (PO | NOVA | | % | | 48.0 | 38.0 | | | Techn | Fost | 1985 | Nova | 9989 |
| | | SO2% | NOVA | | % | | 100. | 94.0 | | | Techn | Fost | 1985 | Nova | 9989 |
| | | PO2 | nova | | mmHg | | 100. | 80.0 | | | Techn | Fost | 1985 | Nova | 9989 |
| | | PCO2 | IRMA | | mmHg | | 44.0 | 36.0 | | | Techn | Fost | 1985 | Nova | 9989 |
| PH | IRMA | | | 7.46 | 7.33 | | Techn | Fost | 1985 | Nova | 9989 | | | | |

Accession ID: **B6**

| | | | | | | | | | | | | | | | |
|-----------|-----------|---------|-------|-----------|------|--|------|------|--|-----------|-------|------|------|-----|--|
| B6 | B6 | PCV ** | PCV/T | B6 | % | | 0.00 | 0.00 | | B6 | Techn | Fost | 1985 | Non | |
| | | TS (FHS | PCV/T | | g/dl | | 0.00 | 0.00 | | | Techn | Fost | 1985 | Non | |

Accession ID: **B6**

| | | | | | | | | | | | | | | | |
|-----------|-----------|----------|-------|-----------|-------|--------|------|------|--|-----------|-------|------|------|------|------|
| B6 | B6 | OSMOLA | Chemi | B6 | mmol/ | | 315. | 291. | | B6 | Techn | Fost | 1986 | Che | 9990 |
| | | CHOLES | Chemi | | mg/dL | | 355. | 82.0 | | | Techn | Fost | 1986 | Che | 9990 |
| | | AST | Chemi | | U/L | 95 Res | 54.0 | 9.00 | | | Techn | Fost | 1986 | Che | 9990 |
| | | ALT | Chemi | | U/L | | 86.0 | 14.0 | | | Techn | Fost | 1986 | Che | 9990 |
| | | ALK PHO | Chemi | | U/L | | 127. | 12.0 | | | Techn | Fost | 1986 | Che | 9990 |
| | | I BILIRU | Chemi | | mg/dL | | 0.20 | 0.00 | | | Techn | Fost | 1986 | Che | 9990 |
| | | D.BILIRU | Chemi | | mg/dL | 0.00 | 0.10 | 0.00 | | | Techn | Fost | 1986 | Che | 9990 |
| | | T BILIRU | Chemi | | mg/dL | | 0.30 | 0.10 | | | Techn | Fost | 1986 | Che | 9990 |
| | | NA/K | Chemi | | | | 40.0 | 29.0 | | | Techn | Fost | 1986 | Che | 9990 |
| | | POTASSI | Chemi | | mEq/L | 3.4 Re | 5.40 | 3.70 | | | Techn | Fost | 1986 | Che | 9990 |
| | | CHLORI | Chemi | | mEq/L | 91 Res | 116. | 106. | | | Techn | Fost | 1986 | Che | 9990 |
| | | SODIUM | Chemi | | mEq/L | 148 Re | 150. | 140. | | | Techn | Fost | 1986 | Che | 9990 |
| | | POIKILO | CBC | | | Occasi | 0.00 | 0.00 | | | Techn | Fost | 1986 | Micr | 9990 |
| | | COMMEN | CBC | | | 10-25 | 0.00 | 0.00 | | | Techn | Fost | 1986 | CBC | 9990 |
| | | A/G RAT | Chemi | | | | 1.60 | 0.70 | | | Techn | Fost | 1986 | Che | 9990 |

Lab Work
for **B6**

| Date/Time | Patient | Description | Type | Results | Unit/Measure | Reference Res | High | Low | Notes | Technician | Hospital | Accession | File No | Case No | Tag Num | |
|-----------|-----------|-------------|-------|-----------|--------------|---------------|------|-------|-------|------------|----------|-----------|---------|---------|---------|------|
| B6 | B6 | GLOBALI | Chemi | B6 | g/dL | | 4.20 | 2.30 | | B6 | Techn | Fost | 1986 | Che | 9990 | |
| | | RDW (A | CBC | | | | 15.2 | 11.9 | | | Techn | Fost | 1986 | CBC | 9990 | |
| | | H-J BOD | CBC | | | Occasi | 0.00 | 0.00 | | | Techn | Fost | 1986 | Micr | 9990 | |
| | | WBC MO | CBC | | | No Mo | 0.00 | 0.00 | | | Techn | Fost | 1986 | Micr | 9990 | |
| | | MCHC(A | CBC | | | g/dL | | 34.3 | 31.9 | | | Techn | Fost | 1986 | CBC | 9990 |
| | | ALBUMI | Chemi | | | g/dL | | 4.00 | 2.80 | | | Techn | Fost | 1986 | Che | 9990 |
| | | MONOS | CBC | | | K/uL | | 1.50 | 0.10 | | | Techn | Fost | 1986 | Micr | 9990 |
| | | MCH(AD | CBC | | | pg | | 25.9 | 21.3 | | | Techn | Fost | 1986 | CBC | 9990 |
| | | T. PROT | Chemi | | | g/dL | | 7.80 | 5.50 | | | Techn | Fost | 1986 | Che | 9990 |
| | | CALCIU | Chemi | | | mg/dL | | 11.3 | 9.40 | | | Techn | Fost | 1986 | Che | 9990 |
| | | MCV(AD | CBC | | | fL | | 77.5 | 64.5 | | | Techn | Fost | 1986 | CBC | 9990 |
| | | LYMPHS | CBC | | | K/uL | | 4.80 | 1.00 | | | Techn | Fost | 1986 | Micr | 9990 |
| | | HCT(AD | CBC | | | % | | 55.0 | 39.0 | | | Techn | Fost | 1986 | CBC | 9990 |
| | | PHOSPH | Chemi | | | mg/dL | | 7.20 | 2.60 | | | Techn | Fost | 1986 | Che | 9990 |
| | | SEGS (A | CBC | | | K/uL | | 11.5 | 2.80 | | | Techn | Fost | 1986 | Micr | 9990 |
| | | CREATIN | Chemi | | | mg/dL | | 2.00 | 0.60 | | | Techn | Fost | 1986 | Che | 9990 |
| | | HGB(AD | CBC | | | g/dL | | 20.5 | 13.3 | | | Techn | Fost | 1986 | CBC | 9990 |
| | | MONOS | CBC | | | % | | 15.0 | 1.00 | | | Techn | Fost | 1986 | Micr | 9990 |
| | | LYMPHS | CBC | | | % | | 47.0 | 7.00 | | | Techn | Fost | 1986 | Micr | 9990 |
| | | UREA | Chemi | | | mg/dL | | 30.0 | 8.00 | | | Techn | Fost | 1986 | Che | 9990 |
| RBC(ADV | CBC | | M/uL | | 8.50 | 5.80 | | Techn | Fost | 1986 | CBC | 9990 | | | | |
| GLUCOS | Chemi | | mg/dL | | 135. | 67.0 | | Techn | Fost | 1986 | Che | 9990 | | | | |
| WBC (AD | CBC | | K/uL | | 15.1 | 4.40 | | Techn | Fost | 1986 | CBC | 9990 | | | | |
| SEGS% | CBC | | % | | 86.0 | 43.0 | | Techn | Fost | 1986 | Micr | 9990 | | | | |

Accession ID: **B6**

| | | | | | | | | | | | | | | |
|-----------|-----------|---------|-------|-----------|-------|-------|------|------|-----------|-------|------|------|-------|------|
| B6 | B6 | TAURINE | Chemi | B6 | nmol/ | >200 | 350. | 200. | B6 | Techn | Fost | 1986 | Tauri | 9992 |
| | | TAURINE | Chemi | | nmol/ | >40 n | 120. | 60.0 | | Techn | Fost | 1986 | Tauri | 9992 |

Accession ID: **B6**

| | | | | | | | | | | | | | |
|-----------|-----------|----------|-------|-----------|-------|------|------|------|-----------|------|------|-----|------|
| B6 | B6 | OSMOLA | Chemi | B6 | mmol/ | | 315. | 291. | B6 | Fost | 2015 | Che | 1014 |
| | | CHOLES | Chemi | | mg/dL | | 355. | 82.0 | | Fost | 2015 | Che | 1014 |
| | | AST | Chemi | | U/L | | 54.0 | 9.00 | | Fost | 2015 | Che | 1014 |
| | | ALT | Chemi | | U/L | | 86.0 | 14.0 | | Fost | 2015 | Che | 1014 |
| | | ALK PHO | Chemi | | U/L | | 127. | 12.0 | | Fost | 2015 | Che | 1014 |
| | | I BILIRU | Chemi | | mg/dL | | 0.20 | 0.00 | | Fost | 2015 | Che | 1014 |
| | | D.BILIRU | Chemi | | mg/dL | 0.00 | 0.10 | 0.00 | | Fost | 2015 | Che | 1014 |
| | | T BILIRU | Chemi | | mg/dL | | 0.30 | 0.10 | | Fost | 2015 | Che | 1014 |
| | | NA/K | Chemi | | | | 40.0 | 29.0 | | Fost | 2015 | Che | 1014 |
| | | POTASSI | Chemi | | mEq/L | | 5.40 | 3.70 | | Fost | 2015 | Che | 1014 |

Lab Work
for **B6**

| Date/Time | Patient | Description | Type | Results | Unit/Measure | Reference Range | High | Low | Notes | Ordering Facility | Technician | Hospital | Accession | File No | Case No | Tag Num |
|-----------|---------|-------------|-------|---------|--------------|-----------------|------|------|-------|-------------------|------------|----------|-----------|---------|---------|---------|
| | | CHLORI | Chemi | | mEq/L | | 116. | 106. | | | | Fost | 2015 | Che | 1014 | |
| | | SODIUM | Chemi | | mEq/L | | 150. | 140. | | | | Fost | 2015 | Che | 1014 | |
| | | A/G RAT | Chemi | | | | 1.60 | 0.70 | | | | Fost | 2015 | Che | 1014 | |
| | | GLOBULI | Chemi | | g/dL | | 4.20 | 2.30 | | | | Fost | 2015 | Che | 1014 | |
| | | ALBUMI | Chemi | | g/dL | | 4.00 | 2.80 | | | | Fost | 2015 | Che | 1014 | |
| | | T. PROT | Chemi | | g/dL | | 7.80 | 5.50 | | | | Fost | 2015 | Che | 1014 | |
| | | CALCIU | Chemi | | mg/dL | | 11.3 | 9.40 | | | | Fost | 2015 | Che | 1014 | |
| | | PHOSPH | Chemi | | mg/dL | | 7.20 | 2.60 | | | | Fost | 2015 | Che | 1014 | |
| | | CREATIN | Chemi | | mg/dL | | 2.00 | 0.60 | | | | Fost | 2015 | Che | 1014 | |
| | | UREA | Chemi | | mg/dL | | 30.0 | 8.00 | | | | Fost | 2015 | Che | 1014 | |
| | | GLUCOS | Chemi | | mg/dL | | 135. | 67.0 | | | | Fost | 2015 | Che | 1014 | |

| Accession ID: | | B6 | | | | | | | | | | | | | | |
|---------------|--|-----------|-------|--|-------|---------|------|------|--|--|--|------|------|-----|------|--|
| | | COMMEN | Chemi | | | Slight | 0.00 | 0.00 | | | | Fost | 2385 | Che | 1199 | |
| | | OSMOLA | Chemi | | mmol/ | | 315. | 291. | | | | Fost | 2385 | Che | 1199 | |
| | | CHOLE | Chemi | | mg/dL | | 355. | 82.0 | | | | Fost | 2385 | Che | 1199 | |
| | | AST | Chemi | | U/L | | 54.0 | 9.00 | | | | Fost | 2385 | Che | 1199 | |
| | | ALT | Chemi | | U/L | | 86.0 | 14.0 | | | | Fost | 2385 | Che | 1199 | |
| | | ALK PHO | Chemi | | U/L | | 127. | 12.0 | | | | Fost | 2385 | Che | 1199 | |
| | | I BILIRU | Chemi | | mg/dL | 0.00 | 0.20 | 0.00 | | | | Fost | 2385 | Che | 1199 | |
| | | D. BILIRU | Chemi | | mg/dL | 0.00 | 0.10 | 0.00 | | | | Fost | 2385 | Che | 1199 | |
| | | T BILIRU | Chemi | | mg/dL | <0.1 | 0.30 | 0.10 | | | | Fost | 2385 | Che | 1199 | |
| | | NA/K | Chemi | | | | 40.0 | 29.0 | | | | Fost | 2385 | Che | 1199 | |
| | | POTASSI | Chemi | | mEq/L | | 5.40 | 3.70 | | | | Fost | 2385 | Che | 1199 | |
| | | CHLORI | Chemi | | mEq/L | | 116. | 106. | | | | Fost | 2385 | Che | 1199 | |
| | | SODIUM | Chemi | | mEq/L | | 150. | 140. | | | | Fost | 2385 | Che | 1199 | |
| | | A/G RAT | Chemi | | | | 1.60 | 0.70 | | | | Fost | 2385 | Che | 1199 | |
| | | GLOBULI | Chemi | | g/dL | | 4.20 | 2.30 | | | | Fost | 2385 | Che | 1199 | |
| | | ALBUMI | Chemi | | g/dL | | 4.00 | 2.80 | | | | Fost | 2385 | Che | 1199 | |
| | | T. PROT | Chemi | | g/dL | | 7.80 | 5.50 | | | | Fost | 2385 | Che | 1199 | |
| | | CALCIU | Chemi | | mg/dL | | 11.3 | 9.40 | | | | Fost | 2385 | Che | 1199 | |
| | | E CANIS/ | Snap | | | Negati | 0.00 | 0.00 | | | | Fost | 2385 | 4DX | 1199 | |
| | | PHOSPH | Chemi | | mg/dL | | 7.20 | 2.60 | | | | Fost | 2385 | Che | 1199 | |
| | | CREATIN | Chemi | | mg/dL | | 2.00 | 0.60 | | | | Fost | 2385 | Che | 1199 | |
| | | A. PHAG | Snap | | | Positiv | 0.00 | 0.00 | | | | Fost | 2385 | 4DX | 1199 | |
| | | UREA | Chemi | | mg/dL | | 30.0 | 8.00 | | | | Fost | 2385 | Che | 1199 | |
| | | LYME C6 | Snap | | | Negati | 0.00 | 0.00 | | | | Fost | 2385 | 4DX | 1199 | |
| | | HW ANT | Snap | | | Negati | 0.00 | 0.00 | | | | Fost | 2385 | 4DX | 1199 | |
| | | GLUCOS | Chemi | | mg/dL | | 135. | 67.0 | | | | Fost | 2385 | Che | 1199 | |

| Date/Time | Patient | Description | Type | Results | Unit/Measure | Reference Range | High | Low | Notes | Technician | Hospital | Accession | File No | Case Id | Bag Num |
|------------------|---------|-------------|-------|---------|--------------|-----------------|------|------|-------|------------|----------|-----------|---------|---------|---------|
| Accession ID: B6 | | | | | | | | | | | | | | | |
| | | OSMOLA | Chemi | | mmol/ | | 315. | 291. | | | Fost | 2936 | Che | 1485 | |
| | | CHOLES | Chemi | | mg/dL | | 355. | 82.0 | | | Fost | 2936 | Che | 1485 | |
| | | AST | Chemi | | U/L | | 54.0 | 9.00 | | | Fost | 2936 | Che | 1485 | |
| | | ALT | Chemi | | U/L | | 86.0 | 14.0 | | | Fost | 2936 | Che | 1485 | |
| | | ALK PHO | Chemi | | U/L | | 127. | 12.0 | | | Fost | 2936 | Che | 1485 | |
| | | I BILIRU | Chemi | 0.00 | mg/dL | | 0.20 | 0.00 | | | Fost | 2936 | Che | 1485 | |
| | | D.BILIRU | Chemi | 0.00 | mg/dL | | 0.10 | 0.00 | | | Fost | 2936 | Che | 1485 | |
| | | T BILIRU | Chemi | <0.1 | mg/dL | | 0.30 | 0.10 | | | Fost | 2936 | Che | 1485 | |
| | | NA/K | Chemi | | | | 40.0 | 29.0 | | | Fost | 2936 | Che | 1485 | |
| | | POTASSI | Chemi | | mEq/L | | 5.40 | 3.70 | | | Fost | 2936 | Che | 1485 | |
| | | CHLORI | Chemi | | mEq/L | | 116. | 106. | | | Fost | 2936 | Che | 1485 | |
| | | SODIUM | Chemi | | mEq/L | | 150. | 140. | | | Fost | 2936 | Che | 1485 | |
| | | A/G RAT | Chemi | | | | 1.60 | 0.70 | | | Fost | 2936 | Che | 1485 | |
| | | GLOBULI | Chemi | | g/dL | | 4.20 | 2.30 | | | Fost | 2936 | Che | 1485 | |
| | | ALBUMI | Chemi | | g/dL | | 4.00 | 2.80 | | | Fost | 2936 | Che | 1485 | |
| | | T. PROT | Chemi | | g/dL | | 7.80 | 5.50 | | | Fost | 2936 | Che | 1485 | |
| | | CALCIU | Chemi | | mg/dL | | 11.3 | 9.40 | | | Fost | 2936 | Che | 1485 | |
| | | PHOSPH | Chemi | | mg/dL | | 7.20 | 2.60 | | | Fost | 2936 | Che | 1485 | |
| | | CREATIN | Chemi | | mg/dL | | 2.00 | 0.60 | | | Fost | 2936 | Che | 1485 | |
| | | UREA | Chemi | | mg/dL | | 30.0 | 8.00 | | | Fost | 2936 | Che | 1485 | |
| | | GLUCOS | Chemi | | mg/dL | | 135. | 67.0 | | | Fost | 2936 | Che | 1485 | |

| | | | | | | | | | | | | | | | |
|------------------|--|----------|-------|------|-------|--------|------|------|--|--|------|------|-----|------|--|
| Accession ID: B6 | | | | | | | | | | | | | | | |
| | | COMMEN | Chemi | | | Slight | 0.00 | 0.00 | | | Fost | 3450 | Che | 1751 | |
| | | OSMOLA | Chemi | | mmol/ | | 315. | 291. | | | Fost | 3450 | Che | 1751 | |
| | | CHOLES | Chemi | | mg/dL | | 355. | 82.0 | | | Fost | 3450 | Che | 1751 | |
| | | AST | Chemi | | U/L | | 54.0 | 9.00 | | | Fost | 3450 | Che | 1751 | |
| | | ALT | Chemi | | U/L | | 86.0 | 14.0 | | | Fost | 3450 | Che | 1751 | |
| | | ALK PHO | Chemi | | U/L | | 127. | 12.0 | | | Fost | 3450 | Che | 1751 | |
| | | I BILIRU | Chemi | 0.00 | mg/dL | | 0.20 | 0.00 | | | Fost | 3450 | Che | 1751 | |
| | | D.BILIRU | Chemi | 0.00 | mg/dL | | 0.10 | 0.00 | | | Fost | 3450 | Che | 1751 | |
| | | T BILIRU | Chemi | <0.1 | mg/dL | | 0.30 | 0.10 | | | Fost | 3450 | Che | 1751 | |
| | | NA/K | Chemi | | | | 40.0 | 29.0 | | | Fost | 3450 | Che | 1751 | |
| | | POTASSI | Chemi | | mEq/L | | 5.40 | 3.70 | | | Fost | 3450 | Che | 1751 | |
| | | CHLORI | Chemi | | mEq/L | | 116. | 106. | | | Fost | 3450 | Che | 1751 | |
| | | SODIUM | Chemi | | mEq/L | | 150. | 140. | | | Fost | 3450 | Che | 1751 | |
| | | A/G RAT | Chemi | | | | 1.60 | 0.70 | | | Fost | 3450 | Che | 1751 | |
| | | GLOBULI | Chemi | | g/dL | | 4.20 | 2.30 | | | Fost | 3450 | Che | 1751 | |
| | | ALBUMI | Chemi | | g/dL | | 4.00 | 2.80 | | | Fost | 3450 | Che | 1751 | |

| Date/Time | Patient | Description | Type | Results | Unit/Meas | Ref Res | High | Low | Notes | sterinari | echnicia | hospi | essor | file | Case I | ag | Numb |
|-----------|---------|-------------|-------|---------|-----------|---------|------|------|-------|-----------|----------|-------|-------|------|--------|----|------|
| B6 | B6 | T. PROT | Chemi | B6 | g/dL | | 7.80 | 5.50 | B6 | | | Fost | 3450 | Che | 1751 | | |
| | | CALCIU | Chemi | | mg/dL | | 11.3 | 9.40 | | Fost | 3450 | Che | 1751 | | | | |
| | | PHOSPH | Chemi | | mg/dL | | 7.20 | 2.60 | | Fost | 3450 | Che | 1751 | | | | |
| | | CREATIN | Chemi | | mg/dL | | 2.00 | 0.60 | | Fost | 3450 | Che | 1751 | | | | |
| | | UREA | Chemi | | mg/dL | | 30.0 | 8.00 | | Fost | 3450 | Che | 1751 | | | | |
| | | GLUCOS | Chemi | | mg/dL | | 135. | 67.0 | | Fost | 3450 | Che | 1751 | | | | |

Clinical History for: B6
Client: B6
Breed: Beagle mix
Sex: Male
Colour: White/Black
Age: B6
Sexed: Y
Alive: Y

B6

17-May 2018 at 09:11 am

B6

Notes
donated bottle of: B6

| Qty | Product / Service | Provider | Staff | Date |
|--------|-------------------|----------|-------|------------------------|
| 100.00 | B6 | | B6 | 17-May 2018 9:11 AM |
| 1.00 | | | | 17-May 2018 9:12 AM |

20-Apr 2018 at 02:59 pm

B6

Notes
Appointment reason: ch: B6

B6

| Qty | Product / Service | Provider | Staff | Date |
|-----------|-------------------|----------|-------|------------------------|
| B6 | | | | 20-Apr-2018 2:59 PM |
| B6 | | | | 20-Apr-2018 2:59 PM |
| B6 | | | | 20-Apr-2018 3:04 PM |
| B6 | | | | 20-Apr-2018 3:04 PM |

26-Mar-2018 at 11:35 am
#1378785 **B6**

| Qty | Product / Service | Provider | Staff | Date |
|--------|-------------------|----------|-----------|-------------------------|
| 200.00 | B6 | | B6 | 26-Mar-2018 11:28 AM |

19-Mar-2018 at 02:15 pm
#1378184 **B6**

Notes
B6

13-Feb-2018 at 02:38 pm
#1375066 **B6**

Notes
Appointment reason: n/t

| Qty | Product / Service | Provider | Staff | Date |
|------|-------------------|--------------------------|-----------|------------------------|
| 1.00 | B6 | Veterinary Technician | B6 | 13-Feb-2018 2:38 PM |

01-Feb-2018 at 03:27 pm
#1374059 **B6**

| Qty | Product / Service | Provider | Staff | Date |
|--------|-------------------|----------|-----------|------------------------|
| 100.00 | B6 | | B6 | 01-Feb-2018 3:27 PM |

08-Jan-2018 at 09:30 am
#1371813 **B6**

| Qty | Product / Service | Provider | Staff | Date |
|--------|-------------------|----------|-----------|------------------------|
| 100.00 | B6 | | B6 | 08-Jan-2018 9:30 AM |

03-Nov-2017 at 04:04 pm
#1366448 **B6**

Notes
Appointment reason: n/t

| Qty | Product / Service | Provider | Staff | Date |
|------|-------------------|----------|-----------|-------------|
| 1.00 | B6 | | B6 | 03-Nov-2017 |

| | | Services | 4:04 PM |
|---|-------------------|----------------------------|---------|
| 01-Nov-2017 at 10:19 am | | | |
| #1366057 | | B6 | |
| Qty | Product / Service | Provider | Staff |
| 100.00 | B6 | B6 | B6 |
| | | Date: 01-Nov-2017 10:19 AM | |
| 26-Sep-2017 at 11:43 am | | | |
| #1362388 | | B6 | |
| Qty | Product / Service | Provider | Staff |
| 1.00 | B6 | B6 | B6 |
| | | Date: 26-Sep-2017 11:43 AM | |
| 25-Jul-2017 at 09:03 am | | | |
| #1356103 | | B6 | |
| Qty | Product / Service | Provider | Staff |
| 2.00 | B6 | B6 | B6 |
| | | Date: 25-Jul-2017 9:03 AM | |
| 12-Jul-2017 at 11:28 am | | | |
| #1354672 | | B6 | |
| Notes: Appointment reason: recheck from 7/11 | | | |
| Qty | Product / Service | Provider | Staff |
| 1.00 | B6 | B6 | B6 |
| | | Date: 12-Jul-2017 11:28 AM | |
| 03-Jul-2017 at 11:08 am | | | |
| #1353789 | | B6 | |
| Notes: Appointment reason: recheck | | | |
| B6 | | B6 | |
| B6 | | No other concerns B6 | |
| <div style="border: 2px dashed black; width: 80%; margin: auto; padding: 20px;"> <h1 style="font-size: 48px; margin: 0;">B6</h1> </div> | | | |

B6

| Qty | Product / Service | Provider | Staff | Date |
|------|-------------------|----------|-------|-------------------------|
| 1.00 | B6 | | | 03-Jul-2017 11:15 AM |
| 1.00 | | | | 03-Jul-2017 11:15 AM |
| 1.00 | | | | 03-Jul-2017 11:22 AM |
| 1.00 | | | | 03-Jul-2017 11:22 AM |
| 1.00 | | | | 03-Jul-2017 11:22 AM |
| 1.00 | | | | 03-Jul-2017 11:22 AM |
| 1.00 | | | | 03-Jul-2017 11:22 AM |
| 1.00 | | | | 03-Jul-2017 11:22 AM |
| 1.00 | | | | 03-Jul-2017 11:43 AM |
| 1.00 | | | | 03-Jul-2017 11:43 AM |

27-Jun-2017 at 08:57 am
#1353159 - **B6**

| Qty | Product / Service | Provider | Staff | Date |
|------|-------------------|-----------|-------|------------------------|
| 1.00 | B6 | B6 | | 27-Jun-2017 8:57 AM |

26-Jun-2017 at 06:40 am
#1353036 - **B6**

Notes:
owner called a pharmacy is going to call for of **B6** 2 bottles
owner is going SA tab three times daily
fixed rx

12/08/2016 10:29

#7335 P.004/007

| DATE | | | PROBLEM NUMBER | SOAP FORMAT | PROGRESS NOTES |
|------|-----|----|----------------|-------------|--|
| MO | DAY | YR | | | |
| 8 | 2 | 16 | | | bloodwork from Tufts Taurine levels WNL |
| 8 | 12 | 16 | | | B6 |
| | | | W-416165902 | | Faxed ops and renal values to Tufts -SP- |
| 5 | 13 | 16 | | | take to 5 per CBC everything is fine |
| 8 | 19 | 16 | | | report from Tufts |
| | | | | | B6 |
| | | | | | o said BID per Tufts -SP |
| | | | | | B6 |
| | | | | | 10/4/16 |
| | | | | | B6 |
| | | | | | B6 |
| | | | | | o called worried about breathing they are 8-10 - 80% H/C said that was fine only worry if they are quiet. |
| | | | | | B6 |
| | | | | | please sign faxed |
| | | | | | B6 |
| | | | | | Bx excisional service |
| | | | | | B6 |

12/08/2016 10:28

#7335 P. 005/007

PROGRESS NOTES

PAGE

5

B6

hand Tri M/C

B6

B6

12/09/2016 10:30

#7335-P.006/007

Client: **B6**
Patient Name: **B6**
Species: Canine
Breed: Mixed

Gender: Male/Castrated
Weight:
Age: 3 Years
Doctor:

B6

| Test | Results | Reference Interval | LOW | NORMAL | HIGH |
|---------------|-----------|--------------------|-----|-----------|-----------|
| Catalyst Dx (| B6 | 10:58 AM) | | | B6 |
| GLU | B6 | 74 - 149 | | B6 | B6 |
| BUN | B6 | 7 - 27 | | | |
| CREA | B6 | 0.5 - 1.8 | | | |
| BUN/CREA | B6 | | | | |
| PHOS | B6 | 2.5 - 6.8 | | | |
| TP | B6 | 5.2 - 8.2 | | | |
| ALB | B6 | 2.3 - 4.0 | | | |
| GLOB | B6 | 2.5 - 4.5 | | | |
| ALB/GLOB | B6 | | | | |
| Na | B6 | 144 - 160 | | | |
| K | B6 | 3.5 - 5.8 | LOW | | |
| Na/K | B6 | | | | |
| Cl | B6 | 109 - 122 | | | |
| Osm Calc | B6 | | | | |

B6

B6

12/08/2016 10:30

#7335 P. 007/007

Client: **B6** Gender: Male/Castrated
Patient Name: **B6** Weight:
Species: Canine Age: 3 Years
Breed: Mixed Doctor:

B6

| Test | Results | Reference Interval | LOW | NORMAL | HIGH |
|------------|-------------|--------------------|------|-----------|-----------------------|
| ProCyte Dx | B6 | 10:51 AM | | | B6 10:05 AM |
| RBC | B6 | 5.65 - 8.87 | | B6 | |
| HCT | | 37.3 - 61.7 | | | |
| HGB | | 13.1 - 20.5 | | | |
| MCV | | 61.6 - 73.5 | | | |
| MCH | | 21.2 - 25.9 | | | |
| MCHC | | 32.0 - 37.9 | | | |
| RDW | | 13.6 - 21.7 | | | |
| %RETIC | | | | | |
| RETIC | | 10.0 - 110.0 | | | |
| WBC | | 5.05 - 16.76 | HIGH | | |
| %NEU | | | | | |
| %LYM | | | | | |
| %MONO | | | | | |
| %EOS | | | | | |
| %BASO | | | | | |
| NEU | | 2.95 - 11.64 | HIGH | | |
| LYM | | 1.05 - 5.10 | | | |
| MONO | | 0.16 - 1.12 | HIGH | | |
| EOS | 0.06 - 1.23 | | | | |
| BASO | 0.00 - 0.10 | | | | |
| PLT | 148 - 484 | | | | |
| MPV | 8.7 - 13.2 | | | | |
| PDW | 9.1 - 19.4 | | | | |
| PCT | 0.14 - 0.46 | | | | |

WBC Abnormal Distribution

RBC Run

WBC Run

B6

B6

Foster Hospital for Small Animals

Liaison Fax: (508) 839-7951
(508) 887-4363

Liaison Phone: (508) 887-4988

Liaison E-mail: liaisons@tufts.edu

Medical Records Phone: (508) 887-4636

Referral Form

Please return form to liaisons via e-mail or fax.

Service to which referred: Emergency Appointment Date: _____ Time: _____

Owner Information

Name: _____ Daytime (work) phone: _____

Home phone: _____ Mobile phone: _____

Email: _____

Address: _____ City: _____ State: _____ Zip Code: _____

Patient Information

Registered Name/ID: _____

Species: Canine Breed: Beagle / Foxhound Sex: AC Age: 3 1/2 yrs

Your Information

Please check preferred method of contact: Phone Fax Email

Dr. **B6** Clinic/Hospital: **B6**

Phone: **B6** Fax: **B6**

Clinic Email: **B6** Doctor Email: _____

Please complete address section if this is a first referral.

Address: _____ City: _____ State: _____ Zip Code: _____

Primary reason for referral:

Cardiomegaly, lethargy, anoxic

Significant History (Brief synopsis is best including concurrent conditions, anesthetic concerns, vaccination history, etc):

Cough 6 weeks, treated 30 day with doxycycline - chronic, coughing, lethargic. Full color

Cummings Veterinary Medical Center
AT TUFTS UNIVERSITY

B6

~~Will email radiographs~~ radiographs were emailed

Referral Form continued

FOSTER HOSPITAL FOR SMALL ANIMALS

Physical exam findings:

T= 100.5 Resists palpation of full colon.
Tachycardic ~~at rest~~

Test results (pertinent to this medical/surgical issue):

Lab work attached: yes no
Biopsy: yes no

Includes digital Imaging (DICOM (*.DCM) format for orthopedic cases strongly recommended): yes no
Please send digital imaging records to liaisons@tufts.edu

Previous treatments and response:

30 days **B6** no change

Preliminary Diagnosis:

Cardiomyopathy +/- pericardic
Pericardial effusion?

Current treatment or special instructions:

None

Questions you want answered from consultation:

.SNAPshot Dx (July 11, 2015 9:24 AM)

7/24/14

B6

Printed: July 11, 2015 9:24 AM

Page 1 of 1

IDEXX
LABORATORIES

Client: **B6**
Patient Name: **B6**
Species: Canine
Breed: Mixed

Gender: Male/Castrated
Weight:
Age: 2 Years
Doctor:

B6

| Test | Results | Reference Interval | LOW | NORMAL | HIGH |
|------|---------|--------------------|-----|--------|------|
|------|---------|--------------------|-----|--------|------|

SNAPshot Dx (July 11, 2015 9:24 AM)

7/24/14
4:08 PM

B6

Client: **B6**
 Patient Name: **B6**
 Species: Canine
 Breed: Mixed

Gender: Male/Castrated
 Weight:
 Age: 3 Years
 Doctor: ..

B6

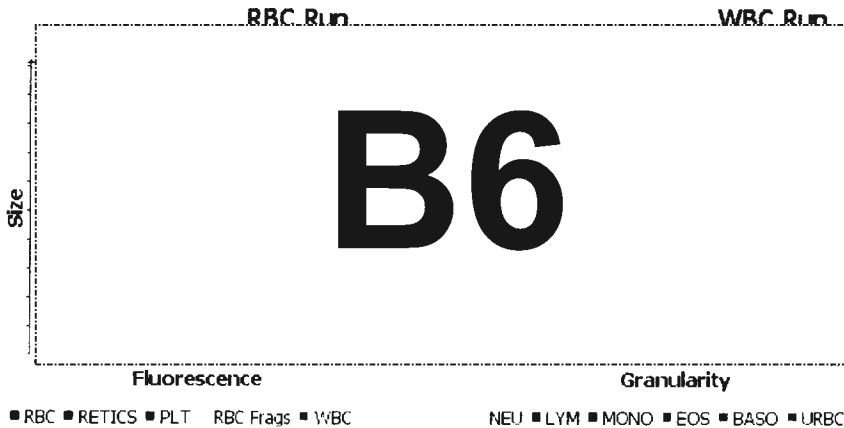
| Test | Results | Reference Interval | LOW | NORMAL | HIGH |
|-------------|-----------|--------------------|-----|--------|------|
| Catalyst Dx | B6 | 10:15 AM) | | | |
| GLU | B6 | 74 - 143 | | | |
| BUN | | 7 - 27 | | | |
| CREA | | 0.5 - 1.8 | | | |
| BUN/CREA | | | | | |
| PHOS | | 2.5 - 6.8 | | | |
| CA | | 7.9 - 12.0 | | | |
| TP | | 5.2 - 8.2 | | | |
| ALB | | 2.3 - 4.0 | | | |
| GLOB | | 2.5 - 4.5 | | | |
| ALB/GLOB | | | | | |
| ALT | | 10 - 125 | | | |
| ALKP | | 23 - 212 | | | |
| GGT | | 0 - 11 | | | |
| TBIL | | 0.0 - 0.9 | | | |
| CHOL | | 110 - 320 | | | |
| Na | | 144 - 160 | | | |
| K | | 3.5 - 5.8 | | | |
| Na/K | | | | | |
| Cl | 109 - 122 | | | | |
| Osm Calc | | | | | |

B6

Client: **B6** Gender: Male/Castrated
 Patient Name: **B6** Weight:
 Species: Canine Age: 3 Years
 Breed: Mixed Doctor:

B6

| Test | Results | Reference Interval | LOW | NORMAL | HIGH |
|-----------|-------------|--------------------|-----------|--------|-----------------------|
| ProCyt Dx | B6 | 10:05 AM) | | | B6 10:14 AM |
| RBC | B6 | 5.65 - 8.87 | B6 | | |
| HCT | | 37.3 - 61.7 | | | |
| HGB | | 13.1 - 20.5 | | | |
| MCV | | 61.6 - 73.5 | | | |
| MCH | | 21.2 - 25.9 | | | |
| MCHC | | 32.0 - 37.9 | | | |
| RDW | | 13.6 - 21.7 | | | |
| %RETIC | | | | | |
| RETIC | | 10.0 - 110.0 | | | |
| WBC | | 5.05 - 16.76 | | | |
| %NEU | | | | | |
| %LYM | | | | | |
| %MONO | | | | | |
| %EOS | | | | | |
| %BASO | | | | | |
| NEU | | 2.95 - 11.64 | | | |
| LYM | | 1.05 - 5.10 | | | |
| MONO | | 0.16 - 1.12 | | | |
| EOS | | 0.06 - 1.23 | | | |
| BASO | 0.00 - 0.10 | | | | |
| PLT | 148 - 484 | | | | |
| MPV | 8.7 - 13.2 | | | | |
| PDW | 9.1 - 19.4 | | | | |
| PCT | 0.14 - 0.46 | | | | |



VACCINATION CERTIFICATE

Account #:
 Owner:
 Address:
 Phone:

B6

H
E

Animal: B6
 Species: **Canine**
 Breed: **Beagle mix**
 Color: **Wht/Blk/Brwn**
 Gender: **Male Neutered**
 Birthdate: B6
 Age: B6
 Weight: **55.00**
 Chip #:

| Date | Vaccine | Manufacturer | Serial # | Type | Tag # | Due on | |
|------------|---------|--------------|----------|------|-------|------------|------------|
| 06/09/2016 | B6 | | | | | 06/08/2017 | |
| 06/09/2016 | | | | | | 06/08/2017 | |
| 06/06/2016 | | | | B6 | | | 07/07/2018 |
| 05/09/2016 | | | | | | | 05/08/2017 |
| 05/09/2016 | | | | | | | 05/08/2017 |
| 07/24/2014 | | | | | | | 07/20/2017 |

B6

B6 07/22/2016

Client: **B6**
 Patient Name: **B6**
 Species: Canine
 Breed: Mixed

Gender: Male/Castrated
 Weight:
 Age: 3 Years
 Doctor:

B6

| Test | Results | Reference Interval | LOW | NORMAL | HIGH |
|-------------|-----------|--------------------|-----|--------|------|
| Catalyst Dx | B6 | 10:15 AM) | | | |
| GLU | B6 | 74 - 143 | | | |
| BUN | | 7 - 27 | | | |
| CREA | | 0.5 - 1.8 | | | |
| BUN/CREA | | | | | |
| PHOS | | 2.5 - 6.8 | | | |
| CA | | 7.9 - 12.0 | | | |
| TP | | 5.2 - 8.2 | | | |
| ALB | | 2.3 - 4.0 | | | |
| GLOB | | 2.5 - 4.5 | | | |
| ALB/GLOB | | | | | |
| ALT | | 10 - 125 | | | |
| ALKP | | 23 - 212 | | | |
| GGT | | 0 - 11 | | | |
| TBIL | | 0.0 - 0.9 | | | |
| CHOL | | 110 - 320 | | | |
| Na | | 144 - 160 | | | |
| K | | 3.5 - 5.8 | | | |
| Na/K | | | | | |
| Cl | 109 - 122 | | | | |
| Osm Calc | | | | | |

B6

Client: **B6** Gender: Male/Castrated
 Patient Name: **B6** Weight:
 Species: Canine Age: 3 Years
 Breed: Mixed Doctor:

B6

Test Results Reference Interval LOW NORMAL HIGH

ProCyte Dx **B6** 10:05 AM **B6** 10:14 AM

RBC 5.65 - 8.87
 HCT 37.3 - 61.7
 HGB 13.1 - 20.5
 MCV 61.6 - 73.5
 MCH 21.2 - 25.9
 MCHC 32.0 - 37.9
 RDW 13.6 - 21.7
 %RETIC
 RETIC 10.0 - 110.0
 WBC 5.05 - 16.76
 %NEU
 %LYM
 %MONO
 %EOS
 %BASO
 NEU 2.95 - 11.64
 LYM 1.05 - 5.10
 MONO 0.16 - 1.12
 EOS 0.06 - 1.23
 BASO 0.00 - 0.10
 PLT 148 - 484
 MPV 8.7 - 13.2
 PDW 9.1 - 19.4
 PCT 0.14 - 0.46

B6

B6

B6

RBC Run

WBC Run



Fluorescence

Granularity

■ RBC ■ RETICS ■ PLT ■ RBC Frags ■ WBC NEU ■ LYM ■ MONO ■ EOS ■ BASO ■ URBC



B6

PLWS m14
Blood

Sample Submission Form

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

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

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

Breed: Beagle Cross Patient ID: **B6**
Sex: Male (Neutered) Home Phone: **B6**
Weight kg: 20.00
Date of Birth: **B6** Ref Facility
Color: White/Brown Ref Phone

Vet/Tech Contact: **B6**

Company Name: Tufts Cummings School of Veterinary Medicine

Address: 200 Westboro Road

North Grafton, MA 01536

B6
Canine
12:50 PM
TAURINE PANEL
Lithium Heparin

Email: clinpath@tufts.edu

Tel: 508-887-4669

Fax: 508-839-7936

Billing Contact: **B6**

TAX ID: _____

Email: **B6**

Tel: **B6**

Patient Name: **B6**

Species: Dog

Owner's Name: **B6**

Sample Type: Plasma Whole Blood Urine Food Other: _____

Test Items: Taurine Complete Amino Acid Other: _____

Taurine Results (nmol/ml)

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

Reference Ranges (nmol/ml)

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

B6

B6 12:50 PM
Canine
TAURINE PANEL
Lithium Heparin

B6

From: Jones, Jennifer L </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0f6ca12eaa9348959a4cbb1e829af244-Jennifer.Jo>
To: Rotstein, David; Carey, Lauren; Palmer, Lee Anne
CC: Peloquin, Sarah
Sent: 12/12/2018 6:24:34 PM
Subject: RE: 800.267-cc-172 [B6] Zignature Kangaroo
Attachments: MRx.zip

Interview pending.

This dog made a full recovery and is an excellent example of the progress of DCM recovery process... even the MV thickening recovered.

[B6] 3 yr MC Beagle Cross at time Dx
Hx: [B6]
Cough x 6 wk, [B6]
Recheck-inapp. cough, lethargy, tachycardia, cardiomegaly
5/9/2016: [B6]
6/26/2016-WBC [B6]
7/22/2016-CBC/chem wnl
7/23: cough, cardiomeg and PE on rDVM rads, [B6]
PE-mild mm loss, Gr II/VI sys L apical, mild dyspnea
Echo-LV subj mild thinner, LV dil, red LV contrxn, LA mod enl, MV mild thick, RH dil, +1 MR, tr to +1 TR, mild pulm hypertension
rDVM Rads: mod generalized cardiomeg, LAE, diff int to alv pattern, likely cardiogenic PE, but more miliary structure to it than typical
[B6]

[B6]
Davis Tau: WB [B6] Plasma [B6]
Tx: [B6]
7/24: Lac [B6]
7/26: diarrhea-tx [B6]
8/2/2016: not been giving Tau supplement, on Ca Naturals Kangaroo and Red Lentil diet
PE-mild mm loss, 132 bpm, Gr II/VI murmur-holosys, PMI L apex
Chem: [B6]
Brief echo: no changes from previous exam
8/12/2016- [B6]
12/8/2016 cardio recheck: on Hill's Chicken and Rice Ideal balance

[B6]

6/22/2017 cardio recheck-Gr I/VI murmur-L sys basilar intermittent; on Hill's Chicken and Rice Ideal Balance w/ frozen carrots and other veggies
Echo-LV mild dil w/ mild dec contrxn, LA mild dil, MV mild thick, RH mild dil, tr MR
[B6]
12/8/2017 cardio: recheck-cough, on Hill's Chicken and Rice ideal balance, frozen carrots, other veggies; on [B6]
PE-Gr II/VI L systolic basilar, Labs-
Echo: LV mild dil w/ mild dec fxn (improved from prev exam), LA-norm to at most mild dil, MV mild thick, RH mild dil, elev Aortic velocity
4/20/2018: P has allergies and may have found a food allergy, OE
6/13/2018 cardio recheck-allergies that are managed by the rDVM; diet unchanged
PE-Gr I/VI L sys base murmur
Echo-normal cardiac structure

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



From: Rotstein, David

Sent: Friday, September 07, 2018 4:54 PM

To: Carey, Lauren <Lauren.Carey@fda.hhs.gov>; Ceric, Olgica <Olgica.Ceric@fda.hhs.gov>; Glover, Mark <Mark.Glover@fda.hhs.gov>; Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>; Nemser, Sarah <Sarah.Nemser@fda.hhs.gov>; Palmer, Lee Anne <LeeAnne.Palmer@fda.hhs.gov>; Peloquin, Sarah <Sarah.Peloquin@fda.hhs.gov>; Queen, Jackie L <Jackie.Queen@fda.hhs.gov>; Rotstein, David <David.Rotstein@fda.hhs.gov>

Subject: Another Tufts! FW: Zignature Kangaroo limited ingredient grain free dry: Lisa Freeman - EON-364572

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



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From: PFR Event <ppreventcreation@fda.hhs.gov>

Sent: Friday, September 07, 2018 4:44 PM

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

B6

Subject: Zignature Kangaroo limited ingredient grain free dry: Lisa Freeman - EON-364572

A PFR Report has been received and PFR Event [EON-364572] has been created in the EON System.

A "PDF" report by name "2054747-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 "2054747-attachments.zip" and is attached to this email notification.

Below is the summary of the report:

EON Key: EON-364572

ICSR #: 2054747

EON Title: PFR Event created for Zignature Kangaroo limited ingredient grain free dry; 2054747

| AE Date | 07/23/2016 | Number Fed/Exposed | |
|---------|------------|--------------------|--|
|---------|------------|--------------------|--|

| | | | |
|--------------------------|--------------------|------------------------|----------------------|
| Best By Date | | Number Reacted | 1 |
| Animal Species | Dog | Outcome to Date | Recovered Completely |
| Breed | Mixed (Dog) | | |
| Age | 5 Years | | |
| District Involved | PFR-New England DO | | |

Product information

Individual Case Safety Report Number: 2054747

Product Group: Pet Food

Product Name: Zignature Kangaroo limited ingredient grain free dry

Description: Developed DCM and CHF on Zignature Kangaroo limited ingredient grain free dry. Changed to Hill's ideal balance chicken and rice dry at time of diagnosis and has improved significantly on last echo (6/13/18) - fractional shortening and heart size now normal and starting to wean off meds

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: Recovered Completely

Number of Animals Reacted With Product: 1

| Product Name | Lot Number or ID | Best By Date |
|--|-------------------------|---------------------|
| Zignature Kangaroo limited ingredient grain free dry | | |

Sender information

Lisa Freeman
 200 Westboro Rd
 North Grafton, MA 01536
 USA

Owner information

B6 USA

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

<https://eon.fda.gov/eon//browse/EON-364572>

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

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jspa?decorator=none&e=0&issueType=12&issuelid=381306>

=====

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From: Jones, Jennifer L </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0f6ca12eaa9348959a4cbb1e829af244-Jennifer.Jo>
To: 'Freeman, Lisa'
Sent: 8/21/2018 2:45:53 PM
Subject: RE: updates

Thank you, Lisa.

We're going to send you the box this week with 7 whirl-pak bags. Each bag will be labelled for the dog and our internal identifier number (EON-XXXXXX). Please fill the bags with the respective food. I've calculated the return weight based on filling 7 bags full.

Also, I have the medical records for [B6] but did you submit a pet food report for him? I'm wondering if I didn't see it on our end.

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



From: Freeman, Lisa [mailto:Lisa.Freeman@tufts.edu]
Sent: Monday, August 20, 2018 6:18 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: updates

Hi Jen
I forgot to note on the report I submitted today that I have a food sample and UPC code for the Acana food that the 2 Dobies were eating.

Also, for [B6], whose heart has improved significantly, I just got a sample from the owner who found some food remaining at her [B6] house – it is not fresh but I'm saving for you in case you want
Thanks
Lisa

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

From: Freeman, Lisa <Lisa.Freeman@tufts.edu>
To: Jones, Jennifer L
Sent: 8/22/2018 6:02:39 PM
Subject: [REDACTED]
Attachments: [REDACTED] diet hx form.pdf; [REDACTED] echo 3-1-18.pdf; [REDACTED] echo 8-28-17.pdf; [REDACTED] nutrition consultation 7-7-18.pdf; [REDACTED] dvm records.pdf

Owner is: [REDACTED]
[REDACTED]
Cardiologist is [REDACTED]

She sent me a small sample of the food he was eating when diagnosed last fall. Attached are his records from Tufts [REDACTED] and echoes from [REDACTED]. I'm sure Dr [REDACTED] could send additional details if needed.

Best,
Lisa

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

From: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Sent: Wednesday, August 22, 2018 12:54 PM
To: Freeman, Lisa <lisa.freeman@tufts.edu>
Subject: RE: updates

Hi Lisa,
I don't have the report in our records from Dr [REDACTED]. If she submitted one and has an ICSR number, we can track it down.

Also, I had our team check for reports for [REDACTED] but there weren't any. Are you also able to send those along with records?

Thank you again for all of your efforts gathering the records, getting permission for interviews with owners, and submitting these complaints. You've been a great help to the investigation!!
Jen

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



From: Freeman, Lisa [<mailto:Lisa.Freeman@tufts.edu>]
Sent: Tuesday, August 21, 2018 10:56 AM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: RE: updates

Hi Jen
Actually, [REDACTED] B6 If you don't have that one, let me know and I
can submit
Owner would be very happy to talk to you
Thanks
Lisa

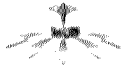
Lisa M. Freeman, DVM, PhD, DACVN
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Friedman School of Nutrition Science and Policy
Tufts Clinical and Translational Science Institute
Tufts University
www.petfoodology.org

From: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Sent: Tuesday, August 21, 2018 10:46 AM
To: Freeman, Lisa <lisa.freeman@tufts.edu>
Subject: RE: updates

Thank you, Lisa.
We're going to send you the box this week with 7 whirl-pak bags. Each bag will be labelled for the dog and our internal identifier number (EON-XXXXXX). Please fill the bags with the respective food. I've calculated the return weight based on filling 7 bags full.

Also, I have the medical records for [REDACTED] B6 but did you submit a pet food report for him? I'm wondering if I didn't see it on our end.

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



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Sent: Monday, August 20, 2018 6:18 PM
To: Jones, Jennifer L <Jennifer.Jones@fda.hhs.gov>
Subject: updates

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Also, for [REDACTED] B6 whose heart has improved significantly, I just got a sample from the owner who found some food remaining at her [REDACTED] B6 house – it is not fresh but I'm saving for you in case you want
Thanks
Lisa

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Client Diet History Form

Submitted: 06/24/2017

PET INFORMATION

Pet Name B6
Pet Last Name
Pet Species/Breed Dog / Boxer
Pet's Color Brindle
Pet's Birthdate B6
Pet's Sex Male
Spayed or Neutered? Yes

CLIENT INFORMATION

Client Name
Client Address
Client Phone
Client Email
Co-Owner Name
Co-Owner Phone
Co-Owner Email

B6

CONSULT INFORMATION

Type of Consult Phone
HCD Being Requested? No
Reasons & Goals for Consult B6 has been recently discovered to have some cardiomyopathy and low taurine levels. He has food sensitivities, so he's been on a limited ingredient diet for over a year... The cardiologist is hoping his heart presentation is mostly due to his taurine deficiency and that we can resolve it with some supplements and a balanced diet. I need help with finding a food for him that doesn't contain poultry (and possible fish).

Attachments

PRIMARY VETERINARIAN INFORMATION

rDVM Name
rDVM Clinic
rDVM Phone
rDVM Fax
rDVM Email

B6

Diet History Form

Diet History Form

Agree to Terms

Date Submitted

06/24/2017

Information to Gather

About You, Your Veterinarian(s) and Your Pet

What type of appointment are you requesting?

Phone

Has your pet been seen at Tufts in the last 6 months?

No

About the Pet Owner

Pet owner name

B6

Pet owner email

B6

Address

B6

Preferred Phone

B6

Preferred Phone Type

Mobile

Alternate Phone

Is there another phone number you would like to give us in case we can't reach you at one of the above?

No

Spouse/partner/co-owner's name

B6

Spouse/partner/co-owner's email

Spouse/partner/co-owner's phone

Your Pet's Primary Veterinarian

Primary veterinarian

B6

Diet History Form

Primary veterinarian's clinic name

B6

Primary veterinarian's clinic phone

B6

Primary veterinarian's clinic fax

Primary veterinarian's clinic email

B6

Is your pet currently being (or has your pet been) seen by any other veterinarians in relation to her/his current health issues or other health issues that you'd like to discuss with us?

Yes

Information About Your Second Veterinarian

Name of 2nd veterinarian

B6

Clinic name of 2nd veterinarian

B6

Phone for 2nd veterinarian's clinic

B6

Fax for 2nd veterinarian's clinic

Email for 2nd veterinarian's clinic

B6

What is this second veterinarian's role in your pet's care?

Cardiologist

Should this 2nd veterinarian receive a copy of any written reports that result from working with our service?

Yes

Is your pet being seen by a 3rd veterinarian?

No

About Your Pet

Pet's name

B6

What is your pet's species?

Dog

Breed

Boxer

Color

Brindle

Diet History Form

Sex

Male

Spayed/neutered?

Yes

Do you know your pet's exact birthdate?

Yes

Pet's Birthdate

B6

What is your pet's current weight

69

Pounds or kilograms?

lbs

Has your pet gained or lost weight within the past 6 months?

Stayed the same

Which category best describes your pet?

ideal weight

Reason and goals for consultation

B6 has been recently discovered to have some cardiomyopathy and low taurine levels. He has food sensitivities, so he's been on a limited ingredient diet for over a year... The cardiologist is hoping his heart presentation is mostly due to his taurine deficiency and that we can resolve it with some supplements and a balanced diet. I need help with finding a food for him that doesn't contain poultry (and possible fish).

Details About Your Pet's Habits**Questions about your pet****Is your pet housed:**

- Indoors

Please describe your pet's activity level:

High

Do you have any other pets?

Yes

What are your other pets?**Species How many?**

Dog 1

Do any pets have access to other pets' food?

No

How many people (including yourself) live in your household?

4

Diet History Form

Who feeds your pet?

All of us take turns

How many times per day do you feed your pet?

Three

Does your pet finish all food that is offered?

It depends

Depends on what?

What we're offering. He won't finish Salmon - he'll walk away from it. He does like any beef/bison/venison food offered.

Does your pet have any difficulty with the following?

Does your pet have any of the following?

- Food allergies
- Environmental allergies

Please explain about your pet's conditions

[B6] was on a mixed protein commercial food as a puppy. He was underweight. We saw a vet [B6] for an emergency problem when he was about 6 months old who (as an aside) suggested that he was 10-20% smaller than he should be. He suggested looking into a food that doesn't contain poultry to see if maybe he had some sort of allergy to it. We switched to a salmon limited ingredient food and he gained 10# in two months, so we stayed on that until very recently. He was fickle about eating it - I mentioned that to our trainer. She suggested that we see a kinesiologist to assess if he had developed an allergy to salmon too. She was the one who suggested we switch to food that was based in beef/bison/boar/venison (hooved animals). [B6] has been on that for about 3 weeks.

He ALSO has an allergy to bees. He tends to eat them off of flowers, they sting his mouth and his face blows up like a balloon. He was on a daily dose of benadryl last spring/summer and fall. This spring, we haven't had an instances yet, but I did notice he was very affected by the pollen (runny eyes w/ discharge and lower energy)

Have you observed any changes in any of the following?

Have you made any recent changes in diet (last 4 weeks)?

Yes

Please explain the changes in your pet's diet

See above

Your Pet's Diet

Do you feed your pet DRY (e.g., kibble) pet food?

Yes

Please list each kind of DRY petfood individually

| Brand or name | Amount per serving | How often given? | Fed since (mo/yr)? |
|------------------------------------|--------------------|------------------|--------------------|
| Petcurean - Go! Limited ingredient | 2 cups | 1-3 times a day | April 2016 |

Diet History Form

| Brand or name | Amount per serving | How often given? | Fed since (mo/yr)? |
|-----------------------|--------------------|--------------------------------|---|
| Petcurean - Fresh Now | 2 cups | 1-3 times a day (we alternate) | December 2015-April 2016, and again June 2017-present |
| Stella & Chewy's Raw | 8 oz patty | 1x day (sometimes) | June 2017 |

Do you feed your pet WET (e.g., canned or pouched) pet food?
No

Do you feed your pet HOME-COOKED food?
No

Do you feed your pet TREATS?
Yes

Please list each kind of TREAT individually

| Brand or name | Amount per serving | How often given? | Fed since (mo/yr)? |
|---------------|--------------------|--|--------------------|
| Lean Treats | 1-2 chunks | 1-5 times a day | December 2015 |
| Wellness Core | 2-5 pieces | 1-3 times a day (Alternating with above) | June 2017 |

Is there any OTHER kind of food you feed your pet?
Yes

Please list each kind of OTHER petfood individually

| Food, brand or name | Amount per serving | How often given? | Fed since (mo/yr)? |
|---------------------|--------------------|------------------|--------------------|
| Bread | small piece | 1x a day | April 2016 |
| Banana | small piece | occasionally | December 2016 |

Do you give any dietary supplements to your pet (for example: vitamins, glucosamine, fatty acids, herbs, or any other supplements)?
Yes

Please list any dietary supplements

| Product Name | Amount | Frequency |
|--------------|---------|-------------------------------------|
| Taurine | 1 gram | 2-3 times a day (Started 6/19/2017) |
| L-Carnitine | 2 grams | 2-3 times a day (Started 6/19/2017) |

Is your pet receiving any medications?
Yes

Please list your pet's medications

| Drug Name | Dosage |
|-----------|--------|
| | B6 |

Do you use food (e.g., Pill Pockets, cheese, bread, peanut butter, etc.) to administer medications?
Yes

Lists foods used to administer medication

Diet History Form

What kind?

Amount? How often?

See above - Lean treats, bread, banana

Regarding commercial diets (pet foods and treats not made in your home) your pet may have received in the past, please select the following statement that is most accurate:

I have never fed other commercial diets to my pet

Home-cooked Diets

Is a home-cooked diet being requested? (Please note that this option is only available for phone or in-person consults, not for consults directly with veterinarians.)

No

Medical Records & Test Results

Requested Items

- Complete blood count, biochemistry profile and urinalysis
- Additional relevant diagnostics (e.g., urine culture, T4, ultrasound reports)
- Last 6 months' medical records or as appropriate (all consults)

Do you have any of the above in electronic format?

No

Would you like to upload and attach anything else to this form?

SOAP - Cardiology

Mar 01, 2018

B6

Patient: **B6**
Species: Canine
Breed: Boxer
Color: brindle
Doctor: **B6**

DOB: **B6**
Age: **B6** Old
Sex: Neutered Male
Tag:

Acc. No: 223669
Phone: Primary - **B6**

Weight: 72.9 lbs.

Prior Medical History

As of 8/28/17

- Dilated cardiomyopathy, suspect secondary to taurine-deficiency given improvement in appearance with diet change/supplementation (currently moderate left atrial enlargement).
- Borderline pulmonary hypertension
- Mildly elevated left and right ventricular outflowtract velocities.

B6 seen through ER Dr. **B6** for getting into Medication. The mother and father and currently on a stay-cation in **B6**. The grandmother and two daughters are at home with **B6**. They were reported to be 100% normal all day. Both dogs received all of their medications as directed today. The grandmother and daughters went to dinner at 7pm and when they returned home around 830pm they found **B6** had gotten into the medications (their medications as well as the mother's medications). **B6** supplementation reported to me) and a bag of marshmallows. Taurine 21g, unknown amount of **B6**.
Weight: 32.7 kgs, Temperature: 101.2, Pulse: 120, Respiration: 36, NSR, NMA, PSS; eupnic, BV clear, no crackles or wheezes or referred upper airway noise.

Diagnostics: **B6**

MEDICATIONS: **B6**

Presenting Complaint

Recheck echo

Current Medical History

General Complaints: Doing well at home, good energy, good appetite.
Coughing?: No
Sneezing?: No
Vomiting: No
Polyuria: No
Polydipsia: No
Diarrhea?: No
Diet?: RC Boxer
Appetite: Increased
Any collapses or seizures?: No

Current Medications

Do you need any refills today?: No
First Cardiac Evaluation?: No
Referral Radiographs?: No

Physical Exam

B6

Echocardiogram

Two Dimensional Description: **B6** was very nervous and tense on the echo table- a little better when we had **B6** leave the exam room. Able to do the study unsedated with two holders.

The left atrium appears mildly to moderately enlarged (appearance of enlargement and LA/Ao increased by small aortic root). The mitral valve appears normal. The left ventricular chamber appears mildly dilated with walls at lower end of normal. Wall motion appears slightly depressed (especially for such a nervous dog) and somewhat asynchronous. The aortic root appears mildly small (breed variant) with normal aortic valve. The right atrium appears mildly dilated. The tricuspid valve appears normal. The right ventricular chamber is normal. The pulmonary artery and pulmonic valve are normal.

B6

Doppler Findings

B6

ECHOCARDIOGRAPHIC DIAGNOSIS:

ECHOCARDIOGRAPHIC DIAGNOSIS:

-Hx Dilated cardiomyopathy dx 6/19/17, suspect secondary to taurine-deficiency given improvement in appearance with diet change/supplementation (currently mild to moderate left atrial enlargement, slight decreased systolic function as of 3/1/18).
-Hx Borderline pulmonary hypertension
-Mildly elevated left and right ventricular outflow tract velocities.

Comparison to previous studies:

There has been continued improvement in cardiac appearance (although still not completely normal). Left atrial size now similar to 2016 echo (prior to dx with DCM- when echo done for asymptomatic murmur and systolic function was normal, so this may be Mogul's "normal" value).

B6

Final Assessment

Final Diagnosis:

-Hx Dilated cardiomyopathy dx 6/19/17, suspect secondary to taurine-deficiency given improvement in appearance with diet change/supplementation (currently mild to moderate left atrial enlargement, slight decreased systolic function as of 3/1/18).
-Hx Borderline pulmonary hypertension
-Mildly elevated left and right ventricular outflow tract velocities.

Diagnostic Recommendations:

No further cardiac testing currently recommended.

Therapeutic Recommendations:

Continue current medications.

Will Rx **B6** IV to reduce cost, and reduce temptation of flavored tabs (twice **B6** have gotten into **B6** +/- other meds).

Follow-Up:

Recheck echo scheduled for October 4th at 1:30 pm (recommended 6-9 month recheck).

Consulting Cardiologist **B6** DVM; DACVIM (cardiology)

B6

Tel

B6

B6

B6

Pet: B6
DOB:
Breed: Boxer
Sex: M
Color: brindle

B6

Visit Date: August 28, 2017

Dear Drs. B6

Please see the accompanying cardiology report for our mutual patient, B6. I am thrilled that B6's heart has improved since changing his diet and supplementing taurine and carnitine! He is such a nice dog with such a nice family, and it was wonderful to be able to give them some good news.

Thank you for the referral and your continued support of B6. Please contact me if you need any more information regarding B6.

Sincerely,

B6

From:

B6

To:

B6

Page 4 of 6 08/28/2017 11:18 AM

B6

SOAP - Cardiology

Aug 28, 2017

B6

Patient: B6
Species: Canine
Breed: Boxer
Color: brindle
Doctor: B6

DOB: B6
Age: B6 Old
Sex: M
Tag:

Acc. No: B6

Phone: Wife cell

B6

Weight: 76.3 lbs.

Prior Medical History

As of 6/19/17

- Dilated cardiomyopathy (severe), r/o idiopathic, secondary to taurine-deficiency, myocarditis, other
- Borderline pulmonary hypertension
- Mildly elevated left ventricular outflow tract velocity (ex 6/2016)
- Normal sinus arrhythmia with no ventricular ectopy

Diagnostics 6/19/17:

Taurine: 47nmol/ml

B6 seen through ER Dr. B6 for B6 ingestion/overdose.

B6 and his housemate B6 presented to the emergency service tonight after getting into B6. Between the two of them they ate as much as 75mg; owner is unsure which of them ate it. Ingestion occurred 2-4 hours prior to presentation. Both dogs were acting normal at home.

Hospitalized for monitoring (bp, ECG) and supportive care (VF)- both dogs did well.

MEDICATIONS:

B6

Presenting Complaint

Recheck echo

Current Medical History

General Complaints: Doing ok at home, O is concerned that he is becoming a finicky eater again. Currently eating RC boxer and O thinks this is the longest he has gone liking/eating the same food. Will eat some treats, but is also not as interested in PB pill pockets - possibly causes stomach upset. Loose stools but not diarrhea.

Coughing?: No

Sneezing?: No

Vomiting: No

From:

B6

To:

Fax:

B6

Page 5 of 6 08/28/2017 11:18 AM

Polyuria: No
Polydipsia: No
Diarrhea?: No
Diet?: RC Boxer (had nutrition consult with Dr. Freeman at Tufts)
Appetite: Normal
Any collapses or seizures?: No

Current Medications

Do you need any refills today?: No
First Cardiac Evaluation?: No
Referral Radiographs?: No

Physical Exam

B6

Echocardiogram

Two Dimensional Description: B6 was nervous, but good on the echo table and able to do the study unsedated with two holders.

The left atrium appears moderately enlarged (appearance of enlargement and LA/Ao increased by small aortic root). The mitral valve appears normal. The left ventricular chamber is moderately dilated with mildly thin walls. Wall motion appears mildly depressed and somewhat asynchronous. The aortic root appears mildly small (breed variant) with normal aortic valve. The right atrium appears mildly dilated. The tricuspid valve appears normal. The right ventricular chamber is normal. The pulmonary artery and pulmonary valve are normal.

B6

From:

B6

To:

Fax:

B6

Page 6 of 6 08/28/2017 11:18 AM

B6

ECHOCARDIOGRAPHIC DIAGNOSIS:

ECHOCARDIOGRAPHIC DIAGNOSIS:

- Dilated cardiomyopathy, suspect secondary to taurine deficiency given improvement in appearance with diet change/supplementation (currently moderate left atrial enlargement).
- Borderline pulmonary hypertension
- Mildly elevated left and right ventricular outflow tract velocities

Comparison to previous studies:

There has been significant improvement in the cardiac appearance since dx with DCM 2 months ago. All chamber sizes are smaller, there is less MR and TR, and contractility appears improved. LA measurements are fairly similar to the original echo one year ago (for asymptomatic murmur).

B6

Final Assessment

Final Diagnosis:

- Dilated cardiomyopathy, suspect secondary to taurine deficiency given improvement in appearance with diet change/supplementation (currently moderate left atrial enlargement).
- Borderline pulmonary hypertension
- Mildly elevated left and right ventricular outflow tract velocities

Diagnostic Recommendations:

No further testing currently recommended.

Therapeutic Recommendations:

Continue:

B6

Follow-Up:

Recheck echo 6 months (scheduled for March 1, 2018 at 1:30 pm).

Consulting Cardiologist:

B6

DVM; DACVIM (cardiology)



Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

Network Procedures for Veterinarians

1. Introduction

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

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

2. Case Background – Consumer complaint

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

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



Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

3. Communications

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

4. Case history

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



Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

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

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

5. Services Requested by VPO

5.1 Services typically tests will fall into 3 categories:

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

5.2 Office Examination:

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

5.3 Clinical Laboratory Samples:

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

5.4 Pathology:

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



Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

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

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

5.5 Toxicology:

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

5.5.1.1 brain (for organophosphates and carbamates),

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

5.5.1.3 if available, serum, EDTA blood, urine.

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

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

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

6. Sample submissions

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

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

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

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

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

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



Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

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

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

8. Reporting

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

9. Communications with Owners

9.1 General:

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



Network Procedures for Veterinary Laboratory Investigation and Response Network Case Investigations

10. Billing

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

From: PFR Event <pfpreventcreation@fda.hhs.gov>
To: Cleary, Michael *; HQ Pet Food Report Notification; B6
Sent: 8/24/2018 10:20:31 PM
Subject: Petcurean Limited Ingredient Salmon Dry: Lisa Freeman - EON-363365
Attachments: 2054221-report.pdf; 2054221-attachments.zip

A PFR Report has been received and PFR Event [EON-363365] has been created in the EON System.

A "PDF" report by name "2054221-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 "2054221-attachments.zip" and is attached to this email notification.

Below is the summary of the report:

EON Key: EON-363365

ICSR #: 2054221

EON Title: PFR Event created for Petcurean Limited Ingredient Salmon Dry, Petcurean Now Fresh; 2054221

| | | | |
|--------------------------|----------------------|---------------------------|----------------------------|
| AE Date | 06/19/2017 | Number Fed/Exposed | 1 |
| Best By Date | | Number Reacted | 1 |
| Animal Species | Dog | Outcome to Date | Better/Improved/Recovering |
| Breed | Boxer (German Boxer) | | |
| Age | 2 Years | | |
| District Involved | PFR-New England DO | | |

Product information

Individual Case Safety Report Number: 2054221

Product Group: Pet Food

Product Name: Petcurean Limited Ingredient Salmon Dry, Petcurean Now Fresh

Description: Previously healthy dog. Eating Petcurean Go Limited ingredient dry primarily. Also, some Petcurean Now Fresh, Stella and Chewy Raw patties, lean treats, Wellness Core treats. Had been on Petcurean Now Fresh lg breed puppy initially. See nutrition consultation for full diet history. Dilated cardiomyopathy diagnosed with low taurine level. DCM reversed after diet change and taurine and carnitine supplementation.

Note: maxed out on attachments - will send more by email. Also, I am submitting this report in collaboration with B6 I will submit a small sample of dog's food when I ship other food samples on 8/27/18

Submission Type: Initial

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

Outcome of reaction/event at the time of last observation: Better/Improved/Recovering

Number of Animals Treated With Product: 1

Number of Animals Reacted With Product: 1

| Product Name | Lot Number or ID | Best By Date |
|---|------------------|--------------|
| Petcurean Now Fresh | | |
| Petcurean Limited Ingredient Salmon Dry | | |

Sender information

Lisa Freeman
200 Westboro Rd
North Grafton, MA 01536
USA

Owner information

B6
USA

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

<https://eon.fda.gov/eon//browse/EON-363365>

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

<https://eon.fda.gov/eon//EventCustomDetailsAction!viewReport.jspa?decorator=none&e=0&issueType=12&issueId=380099>

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.

Client Diet History Form

Submitted: 06/24/2017

PET INFORMATION

Pet Name **B6**
Pet Last Name **B6**
Pet Species/Breed Dog / Boxer
Pet's Color Brindle
Pet's Birthdate **B6**
Pet's Sex Male
Spayed or Neutered? Yes

CLIENT INFORMATION

Client Name **B6**
Client Address **B6**
Client Phone **B6**
Client Email **B6**
Co-Owner Name **B6**
Co-Owner Phone **B6**
Co-Owner Email **B6**

CONSULT INFORMATION

Type of Consult Phone
HCD Being Requested? No
Reasons & Goals for Consult **B6** has been recently discovered to have some cardiomyopathy and low taurine levels. He has food sensitivities, so he's been on a limited ingredient diet for over a year... The cardiologist is hoping his heart presentation is mostly due to his taurine deficiency and that we can resolve it with some supplements and a balanced diet. I need help with finding a food for him that doesn't contain poultry (and possible fish).

Attachments

PRIMARY VETERINARIAN INFORMATION

rDVM Name **B6**
rDVM Clinic **B6**
rDVM Phone **B6**
rDVM Fax **B6**
rDVM Email **B6**

Diet History Form

Diet History Form

Agree to Terms

Date Submitted

06/24/2017

Information to Gather

About You, Your Veterinarian(s) and Your Pet

What type of appointment are you requesting?

Phone

Has your pet been seen at Tufts in the last 6 months?

No

About the Pet Owner

Pet owner name

B6

Pet owner email

B6

Address

B6

United States

Preferred Phone

B6

Preferred Phone Type

Mobile

Alternate Phone

Is there another phone number you would like to give us in case we can't reach you at one of the above?

No

Spouse/partner/co-owner's name

B6

Spouse/partner/co-owner's email

Spouse/partner/co-owner's phone

Your Pet's Primary Veterinarian

Primary veterinarian

B6

Diet History Form

Primary veterinarian's clinic name

B6

Primary veterinarian's clinic phone

B6

Primary veterinarian's clinic fax

Primary veterinarian's clinic email

B6

Is your pet currently being (or has your pet been) seen by any other veterinarians in relation to her/his current health issues or other health issues that you'd like to discuss with us?

Yes

Information About Your Second Veterinarian

Name of 2nd veterinarian

B6

Clinic name of 2nd veterinarian

B6

Phone for 2nd veterinarian's clinic

B6

Fax for 2nd veterinarian's clinic

Email for 2nd veterinarian's clinic

B6

What is this second veterinarian's role in your pet's care?

Cardiologist

Should this 2nd veterinarian receive a copy of any written reports that result from working with our service?

Yes

Is your pet being seen by a 3rd veterinarian?

No

About Your Pet

Pet's name

B6

What is your pet's species?

Dog

Breed

Boxer

Color

Brindle

Diet History Form

| |
|---|
| Sex Male |
| Spayed/neutered? Yes |
| Do you know your pet's exact birthdate? Yes |
| Pet's Birthdate B6 |
| What is your pet's current weight 69 |
| Pounds or kilograms? lbs |
| Has your pet gained or lost weight within the past 6 months? Stayed the same |
| Which category best describes your pet? ideal weight |
| Reason and goals for consultation B6 has been recently discovered to have some cardiomyopathy and low taurine levels. He has food sensitivities, so he's been on a limited ingredient diet for over a year... The cardiologist is hoping his heart presentation is mostly due to his taurine deficiency and that we can resolve it with some supplements and a balanced diet. I need help with finding a food for him that doesn't contain poultry (and possible fish). |
| Details About Your Pet's Habits |
| Questions about your pet |
| Is your pet housed: · Indoors |
| Please describe your pet's activity level: High |
| Do you have any other pets? Yes |
| What are your other pets? Species How many? Dog 1 |
| Do any pets have access to other pets' food? No |
| How many people (including yourself) live in your household? 4 |

Diet History Form

Who feeds your pet?

All of us take turns

How many times per day do you feed your pet?

Three

Does your pet finish all food that is offered?

It depends

Depends on what?

What we're offering. He won't finish Salmon - he'll walk away from it. He does like any beef/bison/venison food offered.

Does your pet have any difficulty with the following?**Does your pet have any of the following?**

- Food allergies
- Environmental allergies

Please explain about your pet's conditions

B6 was on a mixed protein commercial food as a puppy. He was underweight. We saw a vet in B6 for an emergency problem when he was about 6 months old who (as an aside) suggested that he was 10-20% smaller than he should be. He suggested looking into a food that doesn't contain poultry to see if maybe he had some sort of allergy to it. We switched to a salmon limited ingredient food and he gained 10# in two months, so we stayed on that until very recently. He was fickle about eating it - I mentioned that to our trainer. She suggested that we see a kinesiologist to assess if he had developed an allergy to salmon too. She was the one who suggested we switch to food that was based in beef/bison/bear/venison (hooved animals). B6 has been on that for about 3 weeks.

He ALSO has an allergy to bees. He tends to eat them off of flowers, they sting his mouth and his face blows up like a balloon. He was on a daily dose of benadryl last spring/summer and fall. This spring, we haven't had an instances yet, but I did notice he was very affected by the pollen (runny eyes w/ discharge and lower energy)

Have you observed any changes in any of the following?**Have you made any recent changes in diet (last 4 weeks)?**

Yes

Please explain the changes in your pet's diet

See above

Your Pet's Diet**Do you feed your pet DRY (e.g., kibble) pet food?**

Yes

Please list each kind of DRY petfood individually

| Brand or name | Amount per serving | How often given? | Fed since (mo/yr)? |
|------------------------------------|--------------------|------------------|--------------------|
| Petcurean - Go! Limited ingredient | 2 cups | 1-3 times a day | April 2016 |

Diet History Form

| Brand or name | Amount per serving | How often given? | Fed since (mo/yr)? |
|--|--------------------|--|---|
| Petcurean - Fresh Now | 2 cups | 1-3 times a day (we alternate) | December 2015-April 2016, and again June 2017-present |
| Stella & Chewy's Raw | 8 oz patty | 1x day (sometimes) | June 2017 |
| Do you feed your pet WET (e.g., canned or pouched) pet food? | | | |
| No | | | |
| Do you feed your pet HOME-COOKED food? | | | |
| No | | | |
| Do you feed your pet TREATS? | | | |
| Yes | | | |
| Please list each kind of TREAT individually | | | |
| Brand or name | Amount per serving | How often given? | Fed since (mo/yr)? |
| Lean Treats | 1-2 chunks | 1-5 times a day | December 2015 |
| Wellness Core | 2-5 pieces | 1-3 times a day (Alternating with above) | June 2017 |
| Is there any OTHER kind of food you feed your pet? | | | |
| Yes | | | |
| Please list each kind of OTHER petfood individually | | | |
| Food, brand or name | Amount per serving | How often given? | Fed since (mo/yr)? |
| Bread | small piece | 1x a day | April 2016 |
| Banana | small piece | occasionally | December 2016 |
| Do you give any dietary supplements to your pet (for example: vitamins, glucosamine, fatty acids, herbs, or any other supplements)? | | | |
| Yes | | | |
| Please list any dietary supplements | | | |
| Product Name | Amount | Frequency | |
| Taurine | 1 gram | 2-3 times a day (Started 6/19/2017) | |
| L-Carnitine | 2 grams | 2-3 times a day (Started 6/19/2017) | |
| Is your pet receiving any medications? | | | |
| Yes | | | |
| Please list your pet's medications | | | |
| Drug Name | Dosage | | |
| | B6 | | |
| Do you use food (e.g., Pill Pockets, cheese, bread, peanut butter, etc.) to administer medications? | | | |
| Yes | | | |
| Lists foods used to administer medication | | | |

Diet History Form

| What kind? | Amount? How often? |
|---|--------------------|
| See above - Lean treats, bread, banana | |
| Regarding commercial diets (pet foods and treats not made in your home) your pet may have received in the past, please select the following statement that is most accurate: | |
| I have never fed other commercial diets to my pet | |
| Home-cooked Diets | |
| Is a home-cooked diet being requested? (Please note that this option is only available for phone or in-person consults, not for consults directly with veterinarians.) | |
| No | |
| Medical Records & Test Results | |
| Requested Items | |
| <ul style="list-style-type: none">- Complete blood count, biochemistry profile and urinalysis- Additional relevant diagnostics (e.g., urine culture, T4, ultrasound reports)- Last 6 months' medical records or as appropriate (all consults) | |
| Do you have any of the above in electronic format? | |
| No | |
| Would you like to upload and attach anything else to this form? | |

SOAP - Cardiology

Mar 01, 2018

| | | | | | |
|------------------|---------------|-----------|-------------------|------|---------------|
| B6 | United States | Patient: | B6 | DOB: | B6 |
| | | Species: | Canine | Age: | B6 Old |
| | | Breed: | Boxer | Sex: | Neutered Male |
| | | Color: | brindle | Tag: | |
| | | Doctor: | Malakoff, Rebecca | | |
| Phone: Primary - | | B6 | | | |

Weight: 72.9 lbs.

Prior Medical History

As of 8/28/17

- Dilated cardiomyopathy, suspect secondary to taurine-deficiency given improvement in appearance with diet change/supplementation (currently moderate left atrial enlargement).
- Borderline pulmonary hypertension
- Mildly elevated left and right ventricular outflowtract velocities.

B6 seen through ER **B6** for getting into Medication...
 The mother and father and currently on a stay-cation **B6**. The grandmother and two daughters are at home with **B6**.
 They were reported to be 100% normal all day. Both dogs received all of their medications as directed today. The grandmother and daughters went to dinner at 7pm and when they returned home around 830pm they found **B6** had gotten into the medications (their medications as well as the mother's medications: **B6** supplementation reported to me) and a bag of marshmallows.

Weight: 32.7 kgs, Temperature: 101.2, Pulse: 120, Respiration: 36, NSR, NMA, PSS; eupnic, BV clear, no crackles or wheezes or referred upper airway noise.

Diagnostics:

B6

MEDICATIONS:

B6

Presenting Complaint

Recheck echo

Current Medical History

General Complaints: Doing well at home, good energy, good appetite.
 Coughing?: No
 Sneezing?: No
 Vomiting: No
 Polyuria: No
 Polydipsia: No
 Diarrhea?: No
 Diet?: RC Boxer
 Appetite: Increased
 Any collapses or seizures?: No

Current Medications

Do you need any refills today?: No
First Cardiac Evaluation?: No
Referral Radiographs?: No

Physical Exam

B6

Echocardiogram

Two Dimensional Description: **B6** was very nervous and tense on the echo table-a little better when we had **B6** leave the exam room. Able to do the study unseated with two holders.

The left atrium appears mildly to moderately enlarged (appearance of enlargement and LA/Ao increased by small aortic root). The mitral valve appears normal. The left ventricular chamber appears mildly dilated with walls at lower end of normal. Wall motion appears slightly depressed (especially for such a nervous dog) and somewhat asynchronous. The aortic root appears mildly small (breed variant) with normal aortic valve. The right atrium appears mildly dilated. The tricuspid valve appears normal. The right ventricular chamber is normal. The pulmonary artery and pulmonic valve are normal.

2-D Measurements

B6

M-Mode Measurements

B6

Doppler Findings

B6

ECHOCARDIOGRAPHIC DIAGNOSIS:

ECHOCARDIOGRAPHIC DIAGNOSIS:

- Hx Dilated cardiomyopathy dx 6/19/17, suspect secondary to taurine-deficiency given improvement in appearance with diet change/supplementation (currently mild to moderate left atrial enlargement, slight decreased systolic function as of 3/1/18).
- Hx Borderline pulmonary hypertension
- Mildly elevated left and right ventricular outflowtract velocities.

Comparison to previous studies:

There has been continued improvement in cardiac appearance (although still not completely normal). Left atrial size now similar to 2016 echo (prior to dx with DCM- when echo done for asymptomatic murmur and systolic function was normal, so this may be Mogul's "normal" value).

B6

Final Assessment

Final Diagnosis:

- Hx Dilated cardiomyopathy dx 6/19/17, suspect secondary to taurine-deficiency given improvement in appearance with diet change/supplementation (currently mild to moderate left atrial enlargement, slight decreased systolic function as of 3/1/18).
- Hx Borderline pulmonary hypertension
- Mildly elevated left and right ventricular outflowtract velocities.

Diagnostic Recommendations:

No further cardiac testing currently recommended.

Therapeutic Recommendations:

Continue current medications.

B6

Follow-Up:

Recheck echo scheduled for October 4th at 1:30 pm (recommended 6-9 month recheck).

Consulting Cardiologist: **B6** DVM; DACVIM (cardiology)

From: **B6**

Fax: **B6**

To:

Fax: **B6**

Page 2 of 6 08/28/2017 11:18 AM

B6

B6

Pet: **B6**
DOB: **B6**
Breed: Boxer
Sex: M
Color: brindle

Cummings Veterinary Medical Center at Tuft's University
Behavior Service
55 Willard St
North Grafton, Massachusetts, United States
01536

Visit Date: August 28, 2017

Dear **B6** and Freeman,

Please see the accompanying cardiology report for our mutual patient, **B6**. I am thrilled that **B6** heart has improved since changing his diet and supplementing taurine and carnitine! He is such a nice dog with such a nice family, and it was wonderful to be able to give them some good news. Thank you for the referral and your continued support of **B6**. Please contact me if you need any more information regarding **B6**.

Sincerely,

B6

From: **B6**

Fax: **B6**

To:

Fax: **B6**

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B6

SOAP - Cardiology

Aug 28, 2017

B6

United States

Patient: **B6**
Species: Canine
Breed: Boxer
Color: brindle
Doctor: **B6**

DOB: **B6**
Age: **B6** Old
Sex: M
Tag:

Phone: Wife cell: **B6**

Weight: 76.3 lbs.

Prior Medical History

As of 6/19/17

- Dilated cardiomyopathy (severe), r/o idiopathic, secondary to taurine-deficiency, myocarditis, other
- Borderline pulmonary hypertension
- Mildly elevated left ventricular outflow tract velocity (ex 6/2016)
- Normal sinus arrhythmia with no ventricular ectopy

Diagnostics 6/18/17:

Taurine: 47nmol/ml

B6 Seen through ER, **B6** in for **B6** ingestion/overdose.

B6 and his housemate **B6** presented to the emergency service tonight after getting into **B6** **B6**. Between the two of them they ate as much as 75mg; owner is unsure which of them ate it. Ingestion occurred 2-4 hours prior to presentation. Both dogs were acting normal at home.

Hospitalized for monitoring (bp, ECG) and supportive care (IVF)- both dogs did well.

MEDICATIONS:

B6

Presenting Complaint

Recheck echo

Current Medical History

General Complaints: Doing ok at home, O is concerned that he is becoming a finicky eater again. Currently eating RC boxer and O thinks this is the longest he has gone liking/eating the same food. Will eat some treats, but is also not as interested in PB pill pockets - possibly causes stomach upset. Loose stools but not diarrhea.

Coughing?: No

Sneezing?: No

Vomiting: No

From: **B6**

Fax: **B6**

To:

Fax: **B6**

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Polyuria: No
Polydipsia: No
Diarrhea?: No
Diet?: RC Boxer (had nutrition consult with Dr. Freeman at Tufts)
Appetite: Normal
Any collapses or seizures?: No

Current Medications

Do you need any refills today?: No
First Cardiac Evaluation?: No
Referral Radiographs?: No

Physical Exam

B6

Echocardiogram

Two Dimensional Description: **B6** was nervous, but good on the echo table and able to do the study unседated with two holders.

The left atrium appears moderately enlarged (appearance of enlargement and LA/Ao increased by small aortic root). The mitral valve appears normal. The left ventricular chamber is moderately dilated with mildly thin walls. Wall motion appears mildly depressed and somewhat asynchronous. The aortic root appears mildly small (breed variant) with normal aortic valve. The right atrium appears mildly dilated. The tricuspid valve appears normal. The right ventricular chamber is normal. The pulmonary artery and pulmonary valve are normal.

2-D Measurements

B6

M-Mode Measurements

B6

From: B6

Fax: B6

To:

Fax: B6

Page 6 of 6 08/28/2017 11:18 AM

B6

Doppler Findings:

B6

ECHOCARDIOGRAPHIC DIAGNOSIS:

ECHOCARDIOGRAPHIC DIAGNOSIS:

- Dilated cardiomyopathy, suspect secondary to taurine deficiency given improvement in appearance with diet change/supplementation (currently moderate left atrial enlargement).
- Borderline pulmonary hypertension
- Mildly elevated left and right ventricular outflow tract velocities

Comparison to previous studies:

There has been significant improvement in the cardiac appearance since dx with DCM 2 months ago. All chamber sizes are smaller, there is less MR and TR, and contractility appears improved. LA measurements are fairly similar to the original echo one year ago (for asymptomatic murmur).

B6

Final Assessment

Final Diagnosis:

- Dilated cardiomyopathy, suspect secondary to taurine deficiency given improvement in appearance with diet change/supplementation (currently moderate left atrial enlargement).
- Borderline pulmonary hypertension
- Mildly elevated left and right ventricular outflow tract velocities

Diagnostic Recommendations:

No further testing currently recommended.

Therapeutic Recommendations:

B6

Follow-Up:

Recheck echo 6 months (scheduled for March 1, 2018 at 1:30 pm).

Consulting Cardiologist:

B6

DVM; DACVIM (cardiology)

Clinical Nutrition Service

Foster Hospital for Small Animals
200 Westboro Road
North Grafton, MA 01536
Phone: (508) 887-4696 Attn: Nutrition Liaison
Fax: 508-887-4363
<http://vetnutrition.tufts.edu/>
vetnutrition@tufts.edu



Nutrition Consultation

Date: 7/7/17 (Phone consultation)

Pet Name: B6 (owner: B6)

Signalment: 1 1/2 year old castrated male Boxer

Weight: 69 pounds (31 kg), body condition score 4/9 (ideal), muscle condition score: Normal

Diagnosis/Problems: Dilated cardiomyopathy with low taurine level; possible food sensitivities, bee and environmental allergies

Medications: B6

RDVM: B6

Medical Center

Recommendations below are based on information obtained from owner and referring veterinarians.

Diet History:

- Current diet: Petcurean Go! Limited Ingredient dry, Petcurean Now Fresh, Stella & Chewy's raw patties, Lean Treats, Wellness Core treats; bread or banana for medication administration. Just started transitioning to Purina Pro Plan Focus Adult Sensitive Skin and Stomach salmon and rice dry based on Dr. B6 recommendations
- Petcurean Now Fresh large breed puppy dry; initially on Iams Smart Puppy Small and Toy Breed dry (8-12 weeks of age), Go Salmon (not finishing food)
- Supplements: Taurine 1000 mg 3 times daily, L-carnitine 2000 mg 2 times daily (NOW or Whole Foods)

Nutritional Goals

- Complete and balanced diet
- Adequate calorie intake to maintain ideal body weight (approximately 70 pounds)
- Reduced sodium
- Moderate protein
- Taurine and L-carnitine supplementation
- Omega-3 fatty acid supplementation

Recommendations:

- I'm happy that we were able to talk about B6 diet to ensure he's getting optimal nutrition. Nutrition is an integral part of the treatment for a dog with heart disease. This is especially important for B6 because we're suspicious of taurine and/or carnitine deficiencies playing a role in his disease. Hopefully, the taurine and carnitine supplementation and a diet we can be more confident in will be helpful for his heart!
- As we discussed, there's a lot of misinformation about pet foods so I'll only be recommending diets that meet all the criteria for being of the highest quality: <http://vetnutrition.tufts.edu/2016/12/questions-you-should-be-asking-about-your-pets-food/>
- My estimate of B6 daily calorie needs is approximately 1700 calories per day (based on the average of 2 cups twice daily that he was getting from the Go Fresh Now dry food). This is an initial estimate to keep him at a weight 70 pounds. However, since every dog is an individual, I'd like to have you weigh him in 2 weeks to be sure he's maintaining his weight. If he's losing weight, you should increase the amount of food and continue to weigh him and if he's gaining weight, you should reduce the amount of food and continue to weigh him. Let me know if you need help with adjusting the amounts.
- The current diet you're feeding (Purina Pro Plan Sensitive Skin and Stomach) is of excellent quality, high in omega-3 fatty acids, and not too high in sodium. Since B6 is not in heart failure, the dietary sodium doesn't

need to be quite as low so I'm comfortable having him continue to eat the Pro Plan (especially since he seems to enjoy it!). However, I'm providing a few other options that are also high in omega-3 fatty acids. Please note the variable calorie density of these foods and adjust the number of cups accordingly to provide our starting point for calories of 1700 calories/day:

| Dry Food | Calories/cup | Sodium (mg/100 calories) |
|---|--------------|--------------------------|
| Pro Plan Focus sensitive skin & stomach salmon & rice (dry) | 447 | 128 |
| Purina JM (dry)* | 408 | 100 |
| Purina DRM Naturals (dry)* | 418 | 80 |
| Royal Canin Boxer (dry) | 335 | 73 |
| Royal Canin Mobility Support JS (dry)* | 324 | 70 |

Diets with an asterisk are ones that must be purchased from **B6** or, if not available, from an online pet food store (eg, Chewy.com, Petfooddirect.com) with a prescription or approval from her. The other 2 diets are available over-the-counter

- Make all changes gradually over 5-7 days to avoid gastrointestinal upset.
- We didn't discuss this on our call but I strongly urge you to discontinue the raw patties immediately. There is no evidence of any health benefit of raw meat diets and there are many, many documented risks. In addition, raw meat diets put you, your family, and your dogs at risk for bacterial infections because of high rates of bacterial contamination of raw meat diets.

Supplements:

- Unfortunately, there is little regulation of supplements for people or animals (safety, effectiveness, and quality control do not have to be proven for them to be sold), and some of these products may be harmful rather than helpful. Therefore, I am very selective when it comes to recommending specific supplements that have undergone independent quality control testing. Looking for the USP logo or using Consumerlab.com is very helpful for finding products with independent testing of quality.
- Taurine and L-carnitine: Because of his low plasma taurine and the potential for some Boxers to have carnitine deficiency, I support **B6** recommendations for supplementation. Since results of independent testing of taurine and carnitine are not available on Consumerlab, we tested a number of products in 2009. Although I don't know that the results are still true 8 years later, the products that did well in our testing were:
 - o Taurine: Solgar, Twinlab, Swanson, NOW, Country Life, and GNC.
 - o L-carnitine: Solgar, Country Life, Jarrow. Although we did not test the liquid L-carnitine from Solgar, I think that would be a reasonable one to try if it's easier to get him to take it as a liquid.
 - o The doses that you're giving **B6** are appropriate.
 - o We have some additional information on these supplements on our HeartSmart website: <http://vet.tufts.edu/heartsmart/diet/important-nutrients-for-pets-with-heart-disease/>
- Omega-3 fatty acids: Fish oil, which is high in the omega-3 fatty acids, EPA and DHA, can have modest benefits in reducing inflammation, maintaining muscle mass, reducing abnormal heart rhythms, and improving appetite. The diets above all contain sufficient omega-3 fatty acids but if we do need to use a supplement in the future, we have brands with independent testing on our HeartSmart website: http://vet.tufts.edu/wp-content/uploads/omega-3_supplementation.pdf

Treats:

- Some good treat options
 - Hill's Ideal Balance Breakfast Medleys with Country Chicken & Egg Dog Treat
 - Hill's Ideal Balance Oven-Baked Naturals with Chicken & Apples Dog Treat
 - Science Diet Grain Free treat with Chicken & Apples Dog Treat
 - Hill's Ideal Balance Soft-Baked Naturals with Chicken & Carrots Dog Treat
 - Hill's Science Diet Baked Light Biscuits with Real Chicken Small Dog Treat
 - Royal Canin Veterinary Diets Original Dog Treats
 - Frosted Mini Wheats (original)
 - Fresh vegetables/fruit – eg, carrots, green beans, apple, orange, bananas, berries (except ones listed below)
- Avoid macadamia nuts, avocado, garlic, onions, grapes, raisins, and other foods known to be toxic to dogs.

Medication Administration

- Dog tablet sized Greenies Pill Pockets are relatively low in sodium (just be sure to avoid Duck and Pea flavor which is high in sodium) but try to limit the total to 4-5/day
- You can also insert medications into one of the following foods:
 - Low-sodium canned pet food (I can give you some specific canned foods if you want to try this option)
 - Mini marshmallows
 - Fruit such as banana, orange, melon, or berries (avoid grapes)
 - Peanut butter (labeled as "no salt added")
 - Pro Plan Additions Puree (Chicken and berries or chicken and pumpkin). This also works well for some dogs to give them pills

Follow Up:

- Monitor body weight to ensure he stays at an ideal weight of about 70 pounds (it may take some adjustment of the new food).
- Please let me know how things go at [B6] recheck cardiology evaluation at the end of August. Hopefully, there will be an improvement in his heart function!

Please contact me if you have any questions about [B6] nutritional plan.

Sincerely,

Lisa M. Freeman, DVM, PhD, DACVN
Professor, Clinical Nutrition
508-887-4696 (telephone)
vetnutrition@tufts.edu (email)
www.petfoodology.org (FAQs and other resources)

B6

Patient ID#: 7040-5

Owner: [B6] [B6] [B6]

Spouse/Other: _____ (Last name) (First name)

Address: [B6] (Street) (City/Town) (State) (Zip code)

Contact Info: Primary Ph # [B6] Other Ph# ()

Other Ph # () Email: [B6]

Pet: [B6] Gender: M Spay/Neuter: [B6]

Species: Canine Breed: boxer

DOB: [B6] Color: brindle

| | |
|--------------|-----------|
| Annual Exam | B6 |
| DA2PP | |
| Lepto | |
| DA2PP 3-year | |
| Bordetella | |
| Lyme | |
| Rabies | |
| HWT | |
| SNAP 4DX | |
| Fecal | |
| Other | |
| | |
| | |

*Not Here
Significant History/Comments: _____ CAUTION: _____

2/16 [B6]

6/16 [B6] Cardiology Cx (1/16/17) * see report

1/17 [Barcode] Home Again 6/17 severe DCM - poss. 2° to Taurine Def.

985 112 008 500 045

[B6]

PAGE: 7

| | | | | | | |
|--------------|------|------|-------|---|--------------|------|
| PATIENT NAME | [B6] | [B6] | boxer | M | OWNER'S NAME | [B6] |
|--------------|------|------|-------|---|--------------|------|

| MO. | DATE | | PROB. NO. | SOAP |
|-----|------|-----|-----------|------|
| | DAY | YR. | | |

MEDICAL RECORD

[B6]

B6

PAGE: 8

| | | | | | | |
|--------------|-----------|-----------|--------------|----------|--------------|-----------|
| PATIENT NAME | B6 | B6 | <i>boyer</i> | <i>M</i> | OWNER'S NAME | B6 |
|--------------|-----------|-----------|--------------|----------|--------------|-----------|

| | | | | |
|-----|----------|-----|-----------|------|
| MO. | DATE DAY | YR. | PROB. NO. | SOAP |
|-----|----------|-----|-----------|------|

MEDICAL RECORD

B6

B6

PAGE: 9

| | | | | | | | | | | | | | | |
|--------------|-----|-----|-------|--|--|------|--|--|----------------|--|--|------|--|--|
| PATIENT NAME | | | [B6] | | | [B6] | | | OWNER'S NAME | | | [B6] | | |
| DATE | | | PROB. | | | SOAP | | | MEDICAL RECORD | | | | | |
| MO. | DAY | YR. | NO. | | | | | | | | | | | |

B6

B6

PAGE: 10

| | | | | | | | | | | |
|--------------|--|------|--|--|------|--|----------|--|--------------|------|
| PATIENT NAME | | [B6] | | | [B6] | | bonyu cm | | OWNER'S NAME | [B6] |
|--------------|--|------|--|--|------|--|----------|--|--------------|------|

| DATE | | PROB. NO. | SOAP | MEDICAL RECORD | | | |
|------|-----|-----------|------|----------------|--|--|--|
| MO. | DAY | | | YR. | | | |

B6

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|

[B6]

PAGE: 11

| | | | | | | | |
|--------------|--|------|------|--------------|-----------|--------------|------|
| PATIENT NAME | | [B6] | [B6] | <i>boxer</i> | <i>CM</i> | OWNER'S NAME | [B6] |
|--------------|--|------|------|--------------|-----------|--------------|------|

| MO. | DATE | PROB. NO. | SOAP | MEDICAL RECORD |
|-----|------|-----------|------|----------------|
| DAY | YR. | | | |

[B6]

B6

B6

Pet: [B6]
DOB: [B6]
Breed: Boxer
Sex: M
Color: brindle

B6

Visit Date: June 19, 2017

Dear [B6]

I was pleased to see that [B6] taurine level came back low, indicating there is a chance we can reverse the changes I saw on echo. I called and left a message for [B6] and am copying below an email I sent her about his diet:

Hi [B6]

You probably already received my message with the news that [B6] taurine level came back as low. This is good news because it means there is a chance the heart enlargement and weakened heart muscle appearance may be reversible. Even prior to receiving the bloodwork results I was consulting with a nutritionist who shared my concerns that he could have low taurine related to his diet. She expressed concern not just about the salmon based diet, but about the current diet as well based on the manufacturer/brand. So in addition to the taurine supplement, I recommend we switch [B6] to a diet we are sure is complete and balanced according to AAFCO feeding trials or by analysis of the actual diet (not a prediction based on recipe) to ensure it meets AAFCO nutrient profiles (AAFCO is the Association of American Feed Control Officials, a non-profit organization that sets standards for both animal feeds and pet food in the US). That may sound daunting, but there are a lot of great pet food manufacturers out there who meet these stringent requirements.

There are a lot of diet misconceptions and marketing information that makes diet selection very confusing for pet owners. I highly recommend the website set up by the Tufts veterinary school nutrition team at www.petfoodology.org. There are so many wonderful articles on there (I just spent a half hour surfing around because it is such wealth of great info!). I want to draw your

attention to the great article on the risks of raw diets (<http://vetnutrition.tufts.edu/2016/01/raw-diets-a-healthy-choice-or-a-raw-deal/>) and the one about the hype around grain-free diets (a pet peeve of mine) (<http://vetnutrition.tufts.edu/2016/06/grain-free-diets-big-on-marketing-small-on-truth/>). In short, since there is concern that [B6] may have some food sensitivities, I encourage you to work with one of the nutritionists at either Tufts or [B6] to find a diet that will work for him, or at least that we switch him to a diet by a company who has done the research and due diligence to ensure a complete and balanced diet.

Meanwhile, you should continue the taurine and L-carnitine supplements, and the [B6] as prescribed. It would be great to see [B6] back sooner than the 3 month recheck however- to take a quick peek at his heart to see if (hopefully) things are changing for the better, and to recheck a taurine level. I think around 6 weeks from now makes sense, so let me know if you are interested in scheduling this, or if you have any questions.

Best,
[B6]

Thank you for the referral and your continued support of [B6]. Please contact me if you need any more information regarding [B6].

Sincerely,

[B6]

B6

SOAP - Cardiology

B6

B6

Patient: B6
Species: Canine
Breed: Boxer
Color: brindle
Doctor: B6
DOB: B6
Age: B6 Old
Sex: M
Tag:
Weight: 69.225 lbs. (31.4 kgs.)

Acc. No: B6
Phone: Home B6

Weight: 31.4 kgs.

Prior Medical History

As of B6
-Mildly elevated left and right ventricular outflow tract velocities: suspect normal variant +/- very mild aortic stenosis.
-Impression of mild left atrial enlargement: n/o age-related, other variant of undetermined cause

Presenting Complaint

Routine recheck

Current Medical History

General Complaints: O states that B6 has had 2 episodes since last visit. First episode was awhile ago (o not sure how long) in B6. He was running around B6 and then acting totally out of it, staring at the ground, weak but did not lose consciousness for around 30 min. Brought to ER in B6 but he was acting normal by the time they got there and they did not find any abnormalities on PE. Thursday am this happened when B6 was running with B6 in the back yard, and side swiped a bush, then stood up and seemed drunk/out of it (moving front legs in uncoordinated/crossing over fashion), lasted 5 min. then went back to normal. O did notice that on Thursday Gums were very pink during episode (not pale). No BM/urination/hypersalivation during episodes. Yesterday was doing "a ton" of reverse sneezing according to O. Great energy level otherwise. Does now have a good appetite. O has seen a kinesthesiologist due to low appetite. Mo had been on strictly salmon based diet for past year, but they recommended changing/rotating protein sources (now beef and venison)- changed a few weeks ago and he is eating better.

Coughing?: No
Sneezing?: Yes
Vomiting: No
Polyuria: No
Polydipsia: No
Diarrhea?: No

Diet?: Was on Go Fresh limited ingredient salmon diet for about a year. A few weeks ago switched to Go Fresh venison and Fresh Now beef, with a raw patty at lunchtime (o unsure brand- something with two people's names)

Appetite: Normal
Any collapses or seizures?: Yes

Current Medications

[B6]

Echocardiogram

Two Dimensional Description: Given [B6] history of panicked flailing on the echo table- we gave him [B6] prior to echo. This provided ample/heavy sedation (next time could try without or give 1/2 that dose).

The left atrium is severely enlarged. The mitral valve appears normal. The left ventricular chamber is moderately dilated with mildly thin walls and severely globally depressed wall motion. The aortic root appears mildly small (breed variant) with normal aortic valve. The right atrium is moderately dilated. The tricuspid valve appears normal. The right ventricular chamber is mildly dilated. The pulmonary artery and pulmonic valve are normal.

2-D Measurements

[B6]

Doppler Findings

B6

ECHOCARDIOGRAPHIC DIAGNOSIS:

ECHOCARDIOGRAPHIC DIAGNOSIS:

- Dilated cardiomyopathy (severe), r/o idiopathic, secondary to taurine-deficiency, myocarditis, other
- Borderline pulmonary hypertension
- Mildly elevated left ventricular outflow tract velocity (dx 6/2016)

Comparison to previous studies:

There has been significant increase in left atrial size (from 3.86 cm on 2D one year ago), in left ventricular size (from 4.38 cm one year ago) and decrease in %FS (from 30.8% one year ago). MR and TR are new (suspect secondary to annular stretch). The right atrium and ventricle subjectively appear somewhat enlarged as well.

B6

Final Assessment

Final Diagnosis:

- Dilated cardiomyopathy (severe), r/o idiopathic, secondary to taurine-deficiency, myocarditis, other
- Borderline pulmonary hypertension
- Mildly elevated left ventricular outflow tract velocity (dx 6/2016)
- Normal sinus arrhythmia with no ventricular ectopy

Diagnostic Recommendations:

Submitted plasma taurine level.
If woozy episodes recur- recommend holter monitor (owner to also try to video episode).

Therapeutic Recommendations:

B6

Follow-Up:
Recheck 3 months with echocardiogram +/- thoracic radiographs (scheduled for September 11 at 9:30 am)
Consulting Cardiologist: [B6] DVM: DACVIM (cardiology)

B6

Client Name: [B6]
Animal Name: [B6]
Client Phone: [B6]
MRN: [B6]
Species: Canine
Breed: Boxer
DOB: [B6] Sex: M

Doctor: [B6]
Clinic: [B6]
Phone: [B6]
Fax: [B6]

Accession: [B6]
Collected: 6/19/2017
Received: 6/19/2017
Approval Date: 6/22/2017 9:16 AM

| Taurine Level (plasma) | Final Report |
|------------------------|-----------------------|
| Ref. Range/Males | 6/19/2017 10:29 AM |
| SENDOUT | See attached link |

Accession number: [B6]
This report continues... (Final)

B6

Client name: B6
MRN: B6

Accession: B6

Report Print Date
Jun-22-2017 8:11:49 am

B6

Owner: B6

Accession Number: B6
Reference Number:
Case Coordinator:

To: B6

Received: 06/20/2017
Sampled:
Finalized: 06/22/2017

Phone: B6
Fax:

Final Report

TOXICOLOGY RESULTS

TAURINE

ANIMAL ID: B6
SPECIMEN ID: M17-19120-1-1
SPECIMEN DESC: PLASMA
TAURINE: B6 mol/mL

COMMENTS1

Canine taurine ranges: normal plasma 60-120 nmol/mL, critical level <40 nmol/mL; whole blood normal 200-350 nmol/mL, critical level <150 nmol/mL.

THIS REPORT HAS BEEN AUTHORIZED BY B6 DIRECTOR
IF YOU HAVE QUESTIONS REGARDING THIS REPORT, PLEASE CONTACT US AT B6
SEE OUR WEBSITE AT B6
FOLLOW US ON FACEBOOK B6
FOLLOW US ON TWITTER: B6

The results listed above supersede any corresponding results which may have been included in the following previous reports for this Accession:
- 06/22/2017 08:10 am - Full Final Accession Report. (DVM)

B6

B6

Pet: [B6]
DOB: [B6]
Breed: Boxer
Sex: M
Color: brindle

B6

Visit Date: June 19, 2017

Dear Dr. [B6]

Please see the accompanying cardiology report for our mutual patient, [B6]. I was so sad to see that [B6] heart has changed quite a bit in the last year, and he now appears to have severe dilated cardiomyopathy. He had been on a limited ingredient salmon diet, only recently switched to beef and venison based diet, so I hold some hope that this may be a taurine deficiency manifestation (would be much better prognosis for him- so fingers crossed!). We have a taurine level pending, but of course this may not reflect historic deficiency due to his recent diet change. Meanwhile, I have prescribed [B6]. He has had two episodes of seeming woozy/disoriented and "out of it" after exertion, but they do not sound classic for arrhythmia-related (one episode lasted 30 minutes) and his ECG today was normal. We will continue to monitor for now (perhaps they were related to low output from systolic dysfunction and pimobendan will help). If they recur, we will check a 24 hour holter monitor (with [B6] bad luck I wouldn't put it past him to also have a neurologic condition!). Thank you for the referral and your continued support of [B6]. Please contact me if you need any more information regarding [B6].

Sincerely,

B6

[B6] (Cardiology)
[B6]

[B6]

SOAP - Cardiology

Jun 19, 2017

[B6]

United States

Patient: [B6]
Species: Canine
Breed: Boxer
Color: brindle
Doctor: [B6]

DOB: [B6]
Age: [B6] Old
Sex: M
Tag:
Weight: 69.225 lbs. (31.4 kgs.)

Phone: Home [B6]

Weight: 31.4 kgs.

Prior Medical History

As of 6/30/16
-Mildly elevated left and right ventricular outflow tract velocities: suspect normal variant +/- very mild aortic stenosis.
-Impression of mild left atrial enlargement: r/o age-related, other variant of undetermined cause

Presenting Complaint

Routine recheck

Current Medical History

General Complaints: O states that [B6] has had 2 episodes since last visit. First episode was awhile ago (o not sure how long) in [B6]. He was running around with [B6] and then acting totally out of it, staring at the ground, weak but did not lose consciousness for around 30 min. Brought to ER in [B6] but he was acting normal by the time they got there and they did not find any abnormalities on PE. Thursday am this happened when [B6] was running with [B6] in the back yard, and side swiped a bush, then stood up and seemed drunk/out of it (moving front legs in uncoordinated/crossing over fashion), lasted 5 min, then went back to normal. O did notice that on Thursday Gums were very pink during episode (not pale). No BM/urination/hypersalivation during episodes. Yesterday was doing "a ton" of reverse snoring according to O. Great energy level otherwise. Does now have a good appetite, O has seen a kinesthesiologist due to low appetite. [B6] had been on strictly salmon based diet for past year, but they recommended changing/rotating protein sources (now beef and venison) - changed a few weeks ago and he is eating better.

Coughing?: No
Sneezing?: Yes
Vomiting: No
Polyuria: No
Polydipsia: No
Diarrhea?: No
Diet?: Was on Go Fresh limited ingredient salmon diet for about a year. A few weeks ago switched to Go Fresh venison and Fresh Now beef, with a raw patty at lunchtime (o unsure brand- something with two people's names)

Appetite: Normal
Any collapses or seizures?: Yes

Current Medications

B6

Echocardiogram

Two Dimensional Description: Given **B6** history of panicked flailing on the echo table- we gave him **B6** prior to echo. This provided ample/heavy sedation (next time could try without or give 1/2 that dose).

The left atrium is severely enlarged. The mitral valve appears normal. The left ventricular chamber is moderately dilated with mildly thin walls and severely globally depressed wall motion. The aortic root appears mildly small (breed variant) with normal aortic valve. The right atrium is moderately dilated. The tricuspid valve appears normal. The right ventricular chamber is mildly dilated. The pulmonary artery and pulmonic valve are normal.

B6

B6

ECHOCARDIOGRAPHIC DIAGNOSIS:

ECHOCARDIOGRAPHIC DIAGNOSIS:

- Dilated cardiomyopathy (severe), r/o idiopathic, secondary to taurine-deficiency, myocarditis, other
- Borderline pulmonary hypertension
- Mildly elevated left ventricular outflow tract velocity (dx 6/2016)

Comparison to previous studies:

There has been significant increase in left atrial size (from 3.86 cm on 2D one year ago), in left ventricular size (from 4.38 cm one year ago) and decrease in %FS (from 30.8% one year ago). MR and TR are new (suspect secondary to annular stretch). The right atrium and ventricle subjectively appear somewhat enlarged as well.

Electrocardiogram

Other Findings: ECG recording throughout the echo study showed normal sinus arrhythmia at 65-95 bpm (mostly ~70 bpm) with no ventricular ectopy recorded.

ELECTROCARDIOGRAPHIC DIAGNOSIS:

Normal sinus arrhythmia

B6

Final Assessment

Final Diagnosis:

- Dilated cardiomyopathy (severe), r/o idiopathic, secondary to taurine-deficiency, myocarditis, other
- Borderline pulmonary hypertension
- Mildly elevated left ventricular outflow tract velocity (dx 6/2016)
- Normal sinus arrhythmia with no ventricular ectopy

Diagnostic Recommendations:

Submitted plasma taurine level.
If wozy episodes recur- recommend holter monitor (owner to also try to video episode).

B6

Follow-Up:

Recheck 3 months with echocardiogram +/- thoracic radiographs (scheduled for September 11 at 9:30 am)

Consulting Cardiologist: [B6] DVM; DACVIM (cardiology)

06/07/17 01:49:45

[B6]

-> 0

[B6] Laboratories I Page 001

[B6]

Owner: [B6]
Patient: [B6]
Species: CANINE
Breed: BOXER
Age: [B6]
Gender: MN

Requisition #: 105080824
Accession #: [B6]
Order rec'd: 06/06/2017
Ordered by: [B6] DVM,
Reported: 06/07/2017

| |
|---|
| OVA AND PARASITES 3 OR MORE |
| OVA & PARASITES |
| NO OVA OR PARASITES SEEN CYNICLOMYCES GUTTULATUS ALSO KNOWN AS SACCHAROMYCOPSIS GUTTULATA (NON-PATHOGENIC YEAST) PRESENT |
| In cases of acute or chronic diarrhea in addition to a fecal floatation and antigen testing for ova and parasites consider testing for viral, bacterial and protozoal infectious agents using RealPCR (canine diarrhea panel: test code 2625; feline diarrhea panel: test code 2627). |

[B6]
06/07/2017

FINAL REPORT

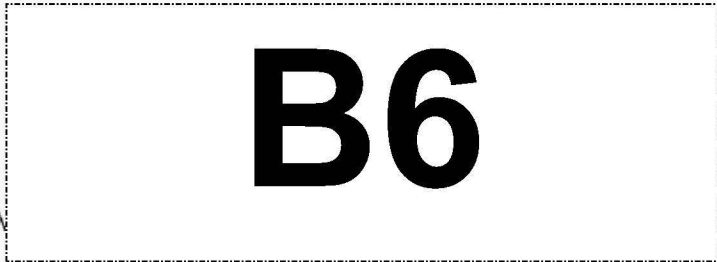
PAGE 1 OF 1

14/01/2017 8:27 PM

B6

→ AD80406

D 1



Owner: **B6**
 Patient: **B6**
 Species: CANINE
 Breed: BOXER
 Age: **B6**
 Gender: M

Requisition #: 103179571
 Accession #: **B6**
 Order recvd: 01/12/2017
 Ordered by: **B6** DVM **B6** 12
 Reported: 01/14/2017

URINE CULT & SUSCEPTIBILITY

| Test | Result |
|---------------------------|-----------|
| SOURCE: | B6 |
| STATUS: | |
| COMPLETED CULTURE RESULTS | |

URINALYSIS & C+S (MIC) | URINALYSIS

| Test | Result | Reference Range | Flag | Bar Graph |
|------|--------|-----------------|------|-----------|
|------|--------|-----------------|------|-----------|

B6
01/14/2017

FINAL REPORT

PAGE 1 OF 1

B6

DISCHARGE SUMMARY
Friday, [B6]

[B6]
[B6]
CANINE, BOXER

- 1. Confinement: Keep [B6] on a leash or in the house for 7 days.
 Do not bring to groomer or allow swimming for 7 days.

- 2. Food and Water: For this evening offer half of his usual meal and small amounts of water. Resume his regular diet tomorrow.

- 3. Sutures/Staples/Drains/Wicks:
 Sutures will dissolve and need not be removed.

- 4. Special Instructions:
 - Monitor incision site daily for any redness, swelling or discharge.
 - Discourage from licking or scratching incision site.
 - Use E-Collar, especially when unsupervised.
 - Give medications as directed. Start pain meds [B6] and restart antibiotics [B6] Sat (1/14) a.m.
 - [B6] will call you with his final urine culture results.
 - If [B6] develops any vomiting or diarrhea, please stop giving the [B6] and call the office to let us know.

** Your pet had a procedure that may make them groggy for 24-48 hours. If you have any questions or concerns please feel free to call the office.

Anesthesia Monitoring

B6

Comments:

01/12/17 17:01:51 [B6]

-> 0

IDEXX Laboratories I Page 001

[B6]

Owner: [B6]
Patient: [B6]
Species: CANINE
Breed: BOXER
Age: [B6]
Gender: M

Requisition #: 103179571
Accession #: [B6]
Order rec'd: 01/12/2017
Ordered by: [B6] DVM,
Reported: 01/12/2017

NOTE FROM IDEXX

NOTE

Your microbiology sample has been received.
Results to follow upon completion.

UA COMPLETION

| Test | Result |
|------------------------------------|--------|
| COLLECTION METHOD | [B6] |
| COLOR | |
| CLARITY | |
| SPECIFIC GRAVITY | |
| GLUCOSE | |
| BILIRUBIN | |
| KETONES | |
| BLOOD | |
| PH | |
| PROTEIN | |
| Protein test is performed as test. | |
| WBC | |
| RBC | |
| BACTERIA | |
| EPI CELL | |
| MUCUS | |
| CASTS | |
| CRYSTALS | |
| OTHER | |
| SPERM PRESENT | |
| UROBILINOGEN | |

[B6]
01/12/2017

FINAL REPORT

PAGE 1 OF 1

01/06/17 07:55:30

B6

-> 0

Ideo Laboratories I Page 001

B6

Owner: B6
 Patient: B6
 Species: CANINE
 Breed: BOXER
 Age: B6
 Gender: MI
 Requisition #: 103110800
 Accession #: B6
 Order rec'd: 01/06/2017
 Ordered by: B6 DVM
 Reported: 01/06/2017

| YOUNG ADULT PROFILE | | CHEM 11 W/ SDMA | |
|---|----|-------------------|----|
| Test | | Result | |
| ALP | | (5 - 160) U/L | |
| ALT | | (18 - 121) U/L | |
| ALBUMIN | | (2.7 - 3.9) g/dL | |
| TOTAL PROTEIN | | (5.5 - 7.5) g/dL | |
| GLOBULIN | | (2.4 - 4.0) g/dL | |
| TOTAL BILIRUBIN | | (0.0 - 0.3) mg/dL | |
| BUN | B6 | (9 - 31) mg/dL | B6 |
| CREATININE | | (0.5 - 1.5) mg/dL | |
| GLUCOSE | | (63 - 114) mg/dL | |
| ALB/GLOB RATIO | | (0.7 - 1.5) | |
| BUN/CREATININE RATIO | | | |
| HEMOLYSIS INDEX | | | |
| Index of N, 1+, 2+ exhibits no significant effect on chemistry values. | | | |
| LIPEMIA INDEX | N | | |
| Index of N, 1+, 2+ exhibits no significant effect on chemistry values. | | | |
| SDMA | B6 | (0 - 14) ug/dL | B6 |
| BOTH SDMA AND CREATININE ARE WITHIN THE REFERENCE INTERVAL which indicates kidney function is likely good. If SDMA and/or creatinine is at the upper end of the reference interval, early kidney disease cannot be ruled out. Evaluate a complete urinalysis to confirm there is no other evidence of kidney disease. | | | |

| YOUNG ADULT PROFILE | | CBC COMPREHENSIVE | |
|---------------------|----|--------------------|----|
| Test | | Result | |
| WBC | | (4.9 - 17.6) K/uL | |
| RBC | | (5.39 - 8.70) M/uL | |
| HGB | B6 | (13.4 - 20.7) g/dL | B6 |
| HCT | | (38.3 - 56.5) % | |
| MCV | | (59 - 76) fL | |
| MCH | | (21.9 - 26.1) pg | |

B6
01/06/2017

FINAL REPORT - CONTINUED ON NEXT PAGE
PAGE 1

| | | | | | | | | | | |
|---|-----------|--------------------|---|-----------|------|---------|----------|---------|--------|------|
| MCHC | | (32.6 - 39.2) g/dL | | B6 | | | | | | |
| % RETICULOCYTE | B6 | % | | | | | | | | |
| RETICULOCYTE | | (10 - 110) K/uL | H | | | | | | | |
| RETICULOCYTE COMMENT | | | | | | | | | | |
| <p>In nonanemic dogs, a reticulocyte count of greater than 110 K/uL of blood may be a transient physiologic response or evidence of bone marrow response to an increased peripheral demand. A persistent reticulocyte count >110 K/uL may indicate occult blood loss, underlying hemolytic disease or disorder that causes an absolute erythrocytosis. Serial monitoring of the erythrogram and reticulocyte count may help determine the significance of this finding. The following chart can be used as a guideline to determine the degree of regenerative response.</p> <p>Degree of bone marrow response (K/uL):</p> <table border="0"> <tr> <td>Mild</td> <td>110-150</td> </tr> <tr> <td>Moderate</td> <td>150-300</td> </tr> <tr> <td>Marked</td> <td>>300</td> </tr> </table> | | | | | Mild | 110-150 | Moderate | 150-300 | Marked | >300 |
| Mild | 110-150 | | | | | | | | | |
| Moderate | 150-300 | | | | | | | | | |
| Marked | >300 | | | | | | | | | |
| % NEUTROPHIL | | % | | B6 | | | | | | |
| % LYMPHOCYTE | | % | | | | | | | | |
| % MONOCYTE | B6 | % | | | | | | | | |
| % EOSINOPHIL | | % | | | | | | | | |
| % BASOPHIL | | % | | | | | | | | |
| PLATELET | | (143 - 448) K/uL | | | | | | | | |
| REMARKS | | | | | | | | | | |
| SLIDE REVIEWED MICROSCOPICALLY. NO PARASITES SEEN | | | | | | | | | | |
| NEUTROPHIL | | (2940 - 12670) /uL | | | | | | | | |
| LYMPHOCYTE | | (1060 - 4950) /uL | | | | | | | | |
| MONOCYTE | B6 | (130 - 1150) /uL | | | | | | | | |
| EOSINOPHIL | | (70 - 1490) /uL | | | | | | | | |
| BASOPHIL | | (0 - 100) /uL | | | | | | | | |
| HEARTWORM AG ELISA AO | | | | | | | | | | |
| HEARTWORM ANTIGEN - ELISA | B6 | | | | | | | | | |
| <p>The American Heartworm Society recommends that a confirmatory test be run on all positive antigen test results prior to therapy, especially when a positive test result is unexpected. For a positive result on a Heartworm Antigen by ELISA, we recommend submission of a new sample for a second Heartworm Antigen by ELISA (test code 723) as a confirmatory test.</p> | | | | | | | | | | |

[B6]

[B6]

Pet: [B6]
DOB: [B6]
Breed: Boxer
Sex: M
Color: brindle

[B6]

Visit Date: June 30, 2016

Dear [B6]

Please see the accompanying cardiology report for our mutual patient, [B6]. Thank you for the referral and your continued support of [B6]. Please contact me if you need any more information regarding [B6].

Sincerely,

[B6]

SOAP - Cardiology

[B6]

[B6]

Patient: [B6]

DOB: [B6]

[B6]

Species: Canine

Age: [B6] Old

United States Breed: Boxer

Sex: M

Color: brindle

Tag:

Acc. No: [B6]

Doctor: [B6]

Weight: 55.2 lbs. (25.038 kgs.)

Phone: Home - [B6]

Weight: 55.2 lbs.

Prior Medical History

[B6]

MEDICATIONS:

[B6]

[B6]

Presenting Complaint

New patient - HM, needs neuter clearance

Current Medical History

B6

Echocardiogram

Two Dimensional Description: * [B6] was very nervous, stiff, intermittently flailing on the echo table. Able to complete study with two holders.

The left atrium appears enlarged, although some of this appearance is related to small aortic root

(leaving final impression of equivocal to mild enlargement). The mitral valve is normal. The left ventricular chamber is normal size with normal wall thicknesses and normal wall motion. The aortic root and proximal aorta appear narrow, with no discrete ridges of narrowing in the subaortic region seen. The aortic valve appears normal. The right atrium and ventricle appear equivocally dilated. The tricuspid valve appears normal. The pulmonary artery and pulmonic valve are normal.

B6

ECHOCARDIOGRAPHIC DIAGNOSIS:

ECHOCARDIOGRAPHIC DIAGNOSIS:

- Mildly elevated left and right ventricular outflow tract velocities: suspect normal variant +/- very mild aortic stenosis.
- Impression of mild left atrial enlargement: r/o age-related, other variant of undetermined cause

Final Assessment

Final Diagnosis:

- Mildly elevated left and right ventricular outflow tract velocities: suspect normal variant +/- very mild aortic stenosis.
- Impression of mild left atrial enlargement: r/o age-related, other variant of undetermined cause

Diagnostic Recommendations:

No further cardiac testing currently recommended.

Therapeutic Recommendations:

No cardiac medications currently recommended. [B6] appears to be a good anesthetic candidate for

[B6] [B6]
[B6]

Follow-Up:

Recheck echocardiogram 1 year.

Consulting Cardiologist: [B6] DVM; DACVIM (cardiology)

[B6]

[B6]

Pet: [B6]
DOB: [B6]
Breed: Boxer
Sex: M
Color: brindle

[B6]

Visit Date [B6]

Dear Colleague,

[B6] presented to our [B6] emergency service this morning after he possibly ingested [B6] around 6:45 am. On presentation [B6] was bright and alert, well hydrated and otherwise stable. Physical exam was within normal limits. [B6] was induced (0. [B6] and [B6] vomited his breakfast but no obvious evidence of [B6]. Animal Poison Control was contacted, and hospitalization through the day was recommended to monitor for bradycardia and hypotension. [B6] was fairly certain that [B6] did not ingest the capsule, and elected to monitor [B6] closely at home through the day. If [B6] develops any abnormal signs, she will have him reevaluated immediately. [B6] received [B6] prior to discharge.

Thank you for the referral and your continued support of [B6]. Please contact me if you need any more information regarding [B6].

Sincerely,

[B6] DVM
Emergency/Critical Care service

B6

SOAP - Text

B6

B6

United

Patient: **B6**

Species: Canine

Breed: Boxer

Color: brindle

Doctor: **B6**

DOB: **B6**

Age: **B6** Old

Sex: M

Tag:

Weight: 28.881 lbs. (13.1 kgs.)

Acc. No: **B6**

Phone: Home - **B6**

Panting: No

Is this patient presenting for trauma?: No

B6

B6

[B6]

H/L: HR 128, NSR no murmur. mm pk, moist CRT < 2s. SSP. Lungs clear bilat, eupneic.

[B6]

A:

[B6]

Currently clinically normal

P:

[B6]

vomited food, no obvious orange/green capsule debris noted

[B6]

SQ

Contact APC (see below)

Animal Poison control (888-426-4435)- case # [B6]

Discussion/recommendations from APC: Unlikely to see any serious adverse effects;

[B6]

[B6]

Call back if any issues develop.

Discussed APC recommendations with o. o aware of potential side effects and risks.

She is fairly sure he did not ingest [B6] O elects to monitor closely at home

through the day today; will call or return if any abnormal behavior.

[B6]

DVM

Assessment

Problem List

Patient Problem List:

No problems found for period.

Diagnosis

Patient Diagnosis:

No diagnosis found for period.

B6

Client Name: **B6**
Animal Name: **B6**
Client Phone: **B6**
MRN: **B6**
Species: Canine
Breed: Boxer
DOB: **B6** Sex: M

Doctor: **B6**
Clinic: **B6**
Phone: **B6**
Fax: **B6**

Accession: **B6**
Collected: 2/12/2016
Received: 2/16/2016
Approval Date: 2/16/2016 12:27 PM

W Nova Basic Panel

| | Ref. Range/Males | B6 11:09 AM |
|-------------|--------------------|-----------------------|
| N NA | 142.0-150.0 mmol/L | B6 |
| N K | 3.62-4.60 mmol/L | |
| N CI | 112.7-118.3 mmol/L | |
| N CA | 1.15-1.34 mmol/L | |
| N GLU | 75-116 mg/dl | |
| N LACT | 0.70-2.80 mmol/L | |
| N BUN | 8-30 mg/dl | |
| N TCO2 | mmol/L | |
| N CREAT | 0.6-1.6 mg/dl | |
| N BUN/CREAT | calc | |
| N OSMO | mOsm/kg | |

Accession number: **B6**
END OF REPORT (Final)

[B6]

[B6]

Pet: [B6]
DOB: [B6]
Breed: Boxer
Sex: M
Color: brindle

Admission Date: <CheckedIn

Discharge Date: [B6]

Attending Doctor: [B6], DVM

Presenting Problem(s): Cough, difficulty breathing, diarrhea

Diagnosis/Rule-outs: Bronchopneumonia - suspected "kennel cough"; diarrhea of unknown etiology (dietary indiscretion vs. parasitism vs. other)

Discharge Instructions:

[B6] was presented to the [B6] Emergency service the morning of [B6] for continued diarrhea and coughing at home. He was admitted to our hospital for supportive care and monitoring. [B6] has done very well with us and is now ready for discharge!

Instructions:

- Please monitor [B6] at home for difficulty breathing, worsening coughing, exercise intolerance, development of more mucoid nasal discharge, or lethargy for the next 1-2 weeks; call us or your primary veterinarian if you are concerned about/notice these clinical signs
- A normal canine respiratory rate at rest (sleeping/lying down) is under 40 breaths per minute. If his respiratory rate is higher than this consistently, it may indicate that he is having trouble breathing on his own. Call a veterinarian if you notice this.
- [B6]
- [B6] should eat a bland diet for the next 5-7 days to help with both the possible gastrointestinal upset from [B6] and the inflammation of his intestine from his diarrhea. He has been eating a combination of Hills i/d and w/d for us in the hospital - we will send you home with a few cans of this, and he can also have some of the dry i/d that you already have at home.

Medication:

[B6]

Thank you for bringing [B6] to [B6] Emergency! He is a total sweetheart and we are so happy that he is feeling better! Please do not hesitate to contact us with any questions or concerns.

Sincerely,

[B6] DVM
DVM

[B6]

[B6]

Pet: [B6]
DOB: [B6]
Breed: Boxer
Sex: M
Color: brindle

[B6]

United States

Visit Date: [B6]

I just wanted to let you know that [B6] was discharged today! He looks much brighter and is no longer coughing or having diarrhea. His medications are listed below. And, today's AM SOAP is sent along as well.

Medications:

[B6]

Thank you for the referral and your continued support of [B6]. Please contact me if you need any more information regarding [B6].

[B6]

B6

SOAP - Text

[B6]

[B6]

United

Patient: [B6]
Species: Canine
Breed: Boxer
Color: brindle
Doctor: [B6]

DOB: [B6]
Age: [B6] Old
Sex: M
Tag:
Weight: 28.881 lbs. (13.1 kgs.)

Acc. No: [B6]
Phone: Home [B6]

B6

Patient Result - Text: Day 2 hospitalization, admitted at noon on [B6].
[B6] was admitted for concerns secondary to increased respiratory effort and cough.
CXR consistent with left lung consolidation secondary to presumed [B6].
[B6] Overnight, he has done very well and is no longer coughing. He has not had diarrhea (or a bowel movement) since admission. He is receiving medications orally without challenge.

B6

[B6]

CV: I/VI systolic murmur, NSR, f-PSS

[B6]

[B6]

Current therapy:

- 1
- 2
- 3

[B6]

Plan:

1. Discharge today with oral medications

[B6] DVM

Assessment

Problem List

Patient Problem List:

[B6]

Diagnosis

Patient Diagnosis:

No diagnosis found for period.

[B6]

[B6]

Pet: [B6]
DOB: [B6]
Breed: Boxer
Sex: M
Color: brindle

[B6]

Visit Date: [B6]

Dear Colleagues,

[B6] is currently being hospitalized for [B6]. He was hospitalized in oxycen (mildly dyspnea noted when awake) and started on a high rate of [B6]. We will keep you update on his progress.

I've attached my SOAP for your records.

[B6] DVM

Weight: 12.9 lbs.

Presenting Complaint

Presenting Complaint: Seen early this morning, concern for continued [B6] in the car ride home.

When the owner tried to bring him home, he had absolutely no interest in food, then had a little bit of slightly formed stool in the house, ran outside and had profuse amounts of watery/liquid diarrhea. At the end of the episode was straining as well.

Historically has been a picky eater since they adopted him. A few days ago he began to get progressively more picky- would only finish a bit of his food and leave the rest. However yesterday he had a full appetite and ate everything offered to him.

He started developing a hacking cough around midnight last night - it progressed and became more frequent and the owner got up with him at 3AM today. He had progressed to coughing every few minutes and producing white foamy spittle. No vomiting at all that the owner had noted.

He is a dog that will eat things - he ate a carrot off of a snowman the other day as well as chewed on the twigs that made the arms, He had one vomitus after this (a few days ago) which contained pieces of the carrot and stick but has eaten well since then and had no further upper GI symptoms

Physical Exam/Objective

B6

Cardiovascular: Sinus rhythm; grade I-II/VI systolic murmur appreciated; strong/synchronous femoral pulses

B6

Assessment

Problem List

Patient Problem List:

B6

Diagnosis

Patient Diagnosis:

B6

Plan

Diagnostics:

B6

[B6]

Spoke with owner - due to [B6] current state, his lethargy and continued symptoms I recommended hospitalization with supportive care [B6]. Discussed possible pneumonia, need for isolation with kennel cough-like symptoms, and oxygen due to mild dyspnea. It is possible that he will not need to be in oxygen shortly, however it is difficult for me to tell at this time. Warned owner that he could get worse before he gets better. A large component of when he can go home will be when he starts to show signs that he eating/drinking/better hydrated. Owner OK with plan.

Plan:

[B6]

After admit called owner to discuss treatments - luckily [B6] is eating for us, so we will start him on an oral [B6]. His radiographs were read out as [B6] and we are suspicious that this could be secondary to an [B6]. Owner expressed concern with enamel [B6] and the use of [B6] - I said that typically we are concerned in 9 weeks or younger, and at over 12 weeks we would not expect to see these symptoms in [B6]. We may add another antibiotic for the suspected [B6] if he does not show improvement by tomorrow. Owner OK with plan.

[B6] DVM

[B6]

[B6]

Pet: [B6]
DOB: [B6]
Breed: Boxer
Sex: M
Color: brindle

[B6]

United States

Visit Date: [B6]

Dear doctors,

[B6] was presented to [B6] for a hacking cough that started last night, diarrhea for three days and reduced appetite. Physical examination suggested he had kennel cough. He was sent home with [B6] Radiology report, CBC and a Chem profile.

Thank you for the referral and your continued support of [B6]. Please contact me if you need any more information regarding [B6].

[B6] DVM

[B6]

B6

Client Name: **B6**
Animal Name: **B6**
Client Phone: **B6**
MRN: **B6**
Species: Canine
Breed: Boxer
DOB: **B6** Sex: M

Doctor: **B6**
Clinic: **B6**
Phone: **B6**
Fax: **B6**

Accession: **B6**
Collected: 2/12/2016
Received: 2/12/2016
Approval Date: 2/12/2016 10:49 AM

CBC (Complete Blood Count)

| | Ref. Range/Males | B6 8:16 AM |
|----------------|------------------|----------------------|
| WBC | 6.0-14.3 K/uL | |
| RBC | 5.8-8.9 M/uL | |
| HGB | 14.3-21.1 g/dL | |
| HCT | 41.7-58.1 % | |
| MCV | 63.2-76.8 fL | |
| MCH | 22.9-26.6 pg | |
| MCHC | 32.4-38.4 g/dL | |
| CH | 22.2-26.0 pg | |
| CHCM | 31.6-38.9 g/dl | |
| RDW | 10.8-14.9 % | |
| Platelet Count | 161-513 K/uL | |

02/12/16 10:48 AM Large platelets seen.

| | | |
|-----------------|---------------|--|
| PCT | 0.129-0.403 % | |
| MPV | 7.5-15.7 fL | |
| PDW | 51.0-73.0 % | |
| NEU # | 3.3-10.1 K/uL | |
| LYM # | 1.0-3.9 K/uL | |
| MON # | 0.1-0.9 K/uL | |
| EOS # | 0.0-1.2 K/uL | |
| BASO # | 0.0-0.1 K/uL | |
| RBC MORPHOLOGY: | | |
| ANISOCYTOSIS | | |

Reticulocytes

| | | |
|----------------------|----------------------|--|
| RETIC Percent | % | |
| RETIC ABSOLUTE Count | x 10 ⁹ /L | |
| RETIC CORRECTED C | % | |

B6 9:56 AM Canine Regeneration: Corrected retic >1.0% and Absolute count >80 x 10⁹/L

Accession number: **B6**
END OF REPORT (Final)

From: Jones, Jennifer L </o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0f6ca12eaa9348959a4cbb1e829af244-Jennifer.Jo>
To: Rotstein, David; Palmer, Lee Anne; Carey, Lauren
CC: Peloquin, Sarah
Sent: 12/13/2018 8:37:58 PM
Subject: RE: 800.267-cc-175-EON-363365- **B6** Petcurean Limited Ingredient Salmon
Attachments: MRx.zip

NFA-Another great case-shows progression to DCM on Petcurean food and improvement after Diet change w/ Tau supplementation

B6 2 yr MC Boxer

B6 to ER: diarrhea, productive cough, hyporexia, tenesmus, picky eater since adoption, ate carrot off snowman/chewed twigs vomited carrot up

PE- slight/mild dyspnea, dull/depressed, 6% dehyd, pale pk mm, very mild ectropion OU, harsh cough on tracheal palp, Gr I-II/VI sys murmur, inc harsh BV bilat x all fields,

B6

2/26: rDVM rads-clear

possibly ingested **B6** no murmur, HR 128 bpm à apomorph, marop
susp histiocytoma R hind foot

B6 possible Daphne plant ingestion, not seen
R FL lame after running into plant

referred for recurrent facial angioedema tx dex, pred & benadryl; eats Now Fresh Kibble

PE-Gr I/VI sys PMI L basilar, mod pulse

Echo: LA enl, aortic root and prox aorta appear narrow, RA/RV equivocally dil, tr TR; mild elev LV and

RV outflow tract velocities-normal variant +/- very mild aortic stenosis;

11/22: **B6**

1/6/2017: Labs-retic rzz,

B6 blood from **B6** crystals, also **B6**, neg culture, tx **B6**

2/16-annual, Gr I/VI sys

6/19: routine recheck-2 episodes poss syncope/borderline syncope/exercise intolerance; been on strictly Go Fress Limited Ingredient Salmon ~ 1 yr; few wks ago switched to Go Fresh Venison and Fresh Now Beef w/ a raw patty at lunch

PE: murmur-L parasternal, mod fem pulse

Echo-sev LA enl, LV mod dil w/ mild thin wall and sev glob dec sys fxn, Aortic root mild small (breed variant), RA mod dil, RV mild dil, mod MR, mild-mod TR = sev DCM, borderline PH, mild elev LV outflow track velocity

ECG-normal sinus arrhyth; BP 84 MAP;

Plasma Tau-WVDL-47

Tx: pimo, 1g Tau, L-carn

7/17 Tufts nutrition consult: current diet Pecurean Go, Petcurean Now Fresh, Stella & Chewy raw patties... just began change to ProPlan Focus Adult Se Skin & Stomach Salmon & Rice, add OFAs

B6 at ER **B6** overdose-monitored, IVF tx

8/28 recheck: on **B6** 1g Tau TID, L carn; becoming finicky eater again-eats RC Boxer

Echo-LA mod enl, LV mod dil w/ mild thin walls, mild dec/somewhat asynchrono motion, aortic root midly small, RA mild dil, mild MR, trivial TR; significant improvement

B6 to ER: gotten into medications- **B6**

3/1/2018 recheck: LA mild to mod enl, LV mild dil w/ walls lower end normal, slit dec wall motion, somewhat asynchrono, Aortic root unchanged, RA mild dil, trivial MR, tr TR

Jennifer Jones, DVM

FDA-CVM-FOIA-2019-1704-012044

Veterinary Medical Officer

Tel: 240-402-5421



From: PFR Event <preventioncreation@fda.hhs.gov>

Sent: Friday, August 24, 2018 6:21 PM

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

Subject: Petcurean Limited Ingredient Salmon Dry: Lisa Freeman - EON-363365

A PFR Report has been received and PFR Event [EON-363365] has been created in the EON System.

A "PDF" report by name "2054221-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 "2054221-attachments.zip" and is attached to this email notification.

Below is the summary of the report:

EON Key: EON-363365

ICSR #: 2054221

EON Title: PFR Event created for Petcurean Limited Ingredient Salmon Dry, Petcurean Now Fresh; 2054221

| | | | |
|--------------------------|----------------------|---------------------------|----------------------------|
| AE Date | 06/19/2017 | Number Fed/Exposed | 1 |
| Best By Date | | Number Reacted | 1 |
| Animal Species | Dog | Outcome to Date | Better/Improved/Recovering |
| Breed | Boxer (German Boxer) | | |
| Age | 2 Years | | |
| District Involved | PFR-New England DO | | |

Product information

Individual Case Safety Report Number: 2054221

Product Group: Pet Food

Product Name: Petcurean Limited Ingredient Salmon Dry, Petcurean Now Fresh

Description: Previously healthy dog. Eating Petcurean Go Limited ingredient dry primarily. Also, some Petcurean Now Fresh, Stella and Chewy Raw patties, lean treats, Wellness Core treats. Had been on Petcurean Now Fresh lg breed puppy initially. See nutrition consultation for full diet history. Dilated cardiomyopathy diagnosed with low taurine level. DCM reversed after diet change and taurine and carnitine supplementation. Note: maxed out on attachments - will send more by email. Also, I am submitting this report in collaboration with [REDACTED] **B6** I will submit a small sample of dog's food when I ship other food samples on 8/27/18

Submission Type: Initial

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

Outcome of reaction/event at the time of last observation: Better/Improved/Recovering

Number of Animals Treated With Product: 1

Number of Animals Reacted With Product: 1

| Product Name | Lot Number or ID | Best By Date |
|---|------------------|--------------|
| Petcurean Now Fresh | | |
| Petcurean Limited Ingredient Salmon Dry | | |

Sender information

Lisa Freeman
200 Westboro Rd
North Grafton, MA 01536
USA

Owner information

B6 USA

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

<https://eon.fda.gov/eon//browse/EON-363365>

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&issueld=380099>

=====

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B6

B6

Patient History

Printed: August 02, 2018

Date Range: Complete History

B6

Patient: **B6**
Species: Canine
Breed: Boxer
Color: brindle
Gender: Neutered Male

DOB: **B6**
Age: **B6**
Microchip #:
Weight: 72.90 lbs.

Diagnosis / Problem List Summary

Problems

B6

Status

Active
Active
Active
Active

Created

February 12, 2016
February 12, 2016
February 12, 2016
February 12, 2016

Visit Summary

Checked In

March 01, 2018
B6
August 28, 2017
July 28, 2017
June 19, 2017
June 30, 2016

B6

Style

B6

Primary Doctor

B6

01 Mar 2018

Prior Medical History: As of 8/28/17

- Dilated cardiomyopathy, suspect secondary to taurine-deficiency given improvement in appearance with diet change/supplementation (currently moderate left atrial enlargement).
- Borderline pulmonary hypertension
- Mildly elevated left and right ventricular outflow tract velocities.

B6 Seen through ER **B6** for getting into Medication
 The mother and father and currently on a stay-cation in **B6**. The grandmother and two daughters are at home with **B6**.
 They were reported to be 100% normal all day. Both dogs received all of their medications as directed today. The grandmother and daughters went to dinner at 7pm and when they returned home around 830pm they found **B6** had gotten into the medications (their medications as well as the mother's medications; **B6** reported to me) and a bag of marshmallows.

Weight: 32.7 kgs., Temperature: 101.2, Pulse: 120, Respiration: 36, NSR, NMA, PSS; eupnic, BV clear, no crackles or wheezes or referred upper airway noise.

Diagnostics:

B6

MEDICATIONS:

B6

SOAP - Cardiology

Mar 01, 2018

B6

Patient: **B6**
 Species: Canine
 Breed: Boxer
 Color: brindle
 Doctor: **B6**

DOB: **B6**
 Age: **B6** Old
 Sex: Neutered Male
 Tag:

Phone: Primary **B6**

Weight: 72.9 lbs.

Prior Medical History

As of 8/28/17

- Dilated cardiomyopathy, suspect secondary to taurine-deficiency given improvement in appearance with diet change/supplementation (currently moderate left atrial enlargement).
- Borderline pulmonary hypertension
- Mildly elevated left and right ventricular outflow tract velocities.

B6 Seen through ER Dr. **B6** for getting into Medication
 The mother and father and currently on a stay-cation in **B6**. The grandmother and two daughters are at home with **B6**.
 They were reported to be 100% normal all day. Both dogs received all of their medications as directed today. The grandmother and daughters went to dinner at 7pm and when they returned home around 830pm they found **B6** had gotten into the medications (their medications as well as the mother's medications; **B6** reported to me) and a bag of marshmallows.

Weight: 32.7 kgs., Temperature: 101.2, Pulse: 120, Respiration: 36, NSR, NMA, PSS; eupnic, BV clear, no crackles or wheezes or referred upper airway noise.

Diagnostics:

B6

MEDICATIONS:

B6

Presenting Complaint

Recheck echo

Current Medical History

General Complaints: Doing well at home, good energy, good appetite.

Coughing?: No

Sneezing?: No

Vomiting: No

Polyuria: No

Polydipsia: No

Diarrhea?: No

Diet?: RC Boxer

Appetite: Increased

Any collapses or seizures?: No

Current Medications

Do you need any refills today?: No

First Cardiac Evaluation?: No

Referral Radiographs?: No

B6

Echocardiogram

Two Dimensional Description: **B6** was very nervous and tense on the echo table- a little better when we had **B6** leave the exam room. Able to do the study unседated with two holders.

The left atrium appears mildly to moderately enlarged (appearance of enlargement and LA/Ao increased by small aortic root). The mitral valve appears normal. The left ventricular chamber appears mildly dilated with walls at lower end of normal. Wall motion appears slightly

depressed (especially for such a nervous dog) and somewhat asynchronous. The aortic root appears mildly small (breed variant) with normal aortic valve. The right atrium appears mildly dilated. The tricuspid valve appears normal. The right ventricular chamber is normal. The pulmonary artery and pulmonic valve are normal.

B6

ECHOCARDIOGRAPHIC DIAGNOSIS:

ECHOCARDIOGRAPHIC DIAGNOSIS:

- Hx Dilated cardiomyopathy dx 6/19/17, suspect secondary to taurine-deficiency given improvement in appearance with diet change/supplementation (currently mild to moderate left atrial enlargement, slight decreased systolic function as of 3/1/18).
- Hx Borderline pulmonary hypertension
- Mildly elevated left and right ventricular outflow tract velocities.

Comparison to previous studies:

There has been continued improvement in cardiac appearance (although still not completely normal). Left atrial size now similar to 2016 echo (prior to dx with DCM- when echo done for asymptomatic murmur and systolic function was normal, so this may be **B6** "normal" value).

B6

Final Assessment

Final Diagnosis:

- Hx Dilated cardiomyopathy dx 6/19/17, suspect secondary to taurine-deficiency given improvement in appearance with diet change/supplementation (currently mild to moderate left atrial enlargement, slight decreased systolic function as of 3/1/18).

-Hx Borderline pulmonary hypertension
-Mildly elevated left and right ventricular outflow tract velocities.

Diagnostic Recommendations:
No further cardiac testing currently recommended.

Therapeutic Recommendations:
Continue current medications.

B6

Follow-Up:
Recheck echo scheduled for October 4th at 1:30 pm (recommended 6-9 month recheck).

Consulting Cardiologist: **B6** DVM; DACVIM (cardiology)

B6

B6

Pet: **B6**
DOB: **B6**
Breed: Boxer
Sex: Neutered Male
Color: brindle

Visit Date: March 01, 2018

Dear Doctors,

Please see the accompanying cardiology report for our mutual patient, **B6**. Thank you for the referral and your continued support of **B6**. Please contact me if you need any more information regarding **B6**.

Sincerely,

B6

t. **B6** (Cardiology)
f. **B6** (Cardiology)

B6

SOAP - Text

B6

B6

Patient: B6
Species: Canine
Breed: Boxer
Color: brindle
Doctor: B6

DOB: B6
Age: B6 Old
Sex: M
Tag:

Phone: B6

Weight: 32.7 kgs.
Temperature: 101.2
Pulse: 120
Respiration: 36
Is this patient presenting for trauma?: No

Presenting Complaint: Suspect ingestion of B6
B6

History:
The mother and father and currently on a stay-cation in B6. The grandmother and two daughters are at home with B6. They were reported to be 100% normal all day. Both dogs received all of their medications as directed today. The grandmother and two daughters went to dinner at 7pm and when they returned home around 830pm they found B6 had gotten into the medications (their medications as well as the mother's medications B6 reported to me) and a bag of marshmallows.

Current Medications/Supplements:
B6

Past Medical History:
B6
8/28/17 (last cardio consult)
-Dilated cardiomyopathy, suspect secondary to taurine-deficiency given improvement in appearance with diet change/supplementation (currently moderate left atrial enlargement).
-Borderline pulmonary hypertension
-Mildly elevated left and right ventricular outflow tract velocities (dx 6/2016)
--Pneumonia as puppy
--Dietary indiscretion 5/2016 (suspect B6) 7/2017 (suspect B6)

B6

-Diet:
dog food dry; good appetite

-Indoor/Outdoor/Environment:
1 other dog in the home

-Travel history:
Did not discuss

-C/S/V/D:
None

-PU/PD:
None

Patient: B6

-Weight loss/gain:
None

-Toxin Exposure:
See above

CODE: **B6**

Physical Exam:

B6

H/L: NSR, NMA, PSS; eupnic, BV clear, no crackles or wheezes or referred upper airway noise

B6

Assessment:
1) Possible ingestion of **B6** at toxic levels

Plan:

B6

-Pet Poison Helpline (855-764-7661) case # **B6**

B6

Discussion with Owner:
Discussed poison control recommendations with owner. Owner approved estimate, no news is good news overnight, will hear from daytime ER doctor in the morning.

B6

Patient: **B6**

Assessment

B6

B6

Pet: **B6**
DOB:
Breed: Boxer
Sex: M
Color: brindle

Visit Date: **B6**

Dear colleague,

B6 were presented to **B6** ER for evaluation after ingesting many medications in the home. Please see the attached SOAP for a complete summary of their visit.

Thank you for the referral and your continued support of **B6** Medical Center. Please contact me if you need any more information regarding **B6**

B6

B6

B6

Pet: **B6**
DOB:
Breed: Boxer
Sex: M
Color: brindle

Discharge Instructions

Date of admission: **B6**
Date of discharge:

Diagnosis: Ingestion of potentially toxic doses of **B6**
Procedure: IVF fluids, continuous ECG, bloodwork

Case Summary:

B6 were presented to **B6** ER for evaluation after getting into many medications **B6** and a bag of marshmallows while the family was out for dinner. Prior to this event, both **B6** were reported to be normal.

On presentation both **B6** were bright and alert with normal vitals. Physical exams were unremarkable. Induction of vomiting was performed in both dogs. **B6** produced partially digested dog food and small pieces of the marshmallow bag. **B6** produced partially digested dog food and 38 pills. Both dogs then received an injection of an anti-nausea medication. Baseline bloodwork was obtained and normal for both **B6**

Poison control was contacted, and due to the amounts of **B6** ingested, it was strongly recommended that both **B6** be admitted to the hospital for close monitoring and IV fluids. Overnight **B6** did well and remained asymptomatic. They are going home at this time for continued monitoring.

Instructions to go home:

-Continue **B6** normal diet.

B6 can return to their normal activity level.

-Monitor **B6** for the development of lethargy, decreased appetite, vomiting, diarrhea or any other abnormal signs, and if observed please contact your local veterinarian.

Medications:

Continue **B6** medications as previously directed-

B6

B6

Sincerely,

B6



Case Detail Report

Poison Control Services
Provided By:



Case Number: **B6**
Client: PPH - Website

Initial Specialist: **B6**

Case Priority: High
Date Opened: **B6** 8:33:28 PM
Payment: Credit Card Processed

Product Information

| Product Name | UPC / NDC | EPA#/PCP# | Lot # | Exp Date | Item # |
|--------------|-----------|-----------|-------|----------|--------|
|--------------|-----------|-----------|-------|----------|--------|

B6

Product Issue:

Caller Information

Call Type: PPH

Caller 1

Name: B6
Relationship: Animal Owner
Address: B6
USA

Phone: B6
E-mail: NA

Caller 2

Name: B6
Relationship: Veterinarian
Address: B6
USA

Phone: B6
E-mail: NA

Additional Information

Follow Up Date:
Exposure Reason: Unintentional-General

Patient Information

Patient # 1

Species: Dog
Breed: Boxer
Name: B6
Routes of Exposure: Ingestion/oral
Time Since Exposure: Unknown
Date / Time of Exposure: Unknown
Time of Symptom Onset: Not applicable
Date of Symptom Onset:
Duration of Symptoms: No effect
Clinical Effects: Asymptomatic
Therapies:
Management Site: ER, Urgent Care or Emergent DVM
Severity:
Consistency Assessment:

Gender: Male
Age: 8 Year(s)
Weight: 82.01 lbs

Repro Status: Spayed/Neutered

Smoker?
Allergy?
Asthma?
Diabetes?
Pregnant?

Prior Medical History: Hx: B6
Medications/Supplements: B6
Lab Results/Diagnostics:

Patient # 2

Species: Dog
Breed: Boxer
Name: B6
Routes of Exposure: Ingestion/oral

Gender: Male
Age: 2 Year(s)
Weight: 75.00 lbs

Time Since Exposure: Unknown
Date / Time of Exposure: Unknown
Time of Symptom Onset: Not applicable
Date of Symptom Onset:
Duration of Symptoms: No effect
Clinical Effects: Asymptomatic
Therapies:
Management Site: ER, Urgent Care or Emergent DVM
Severity:
Consistency Assessment:
Smoker? **Repro Status:** Spayed/Neutered
Allergy?
Asthma?
Diabetes?
Pregnant?
Prior Medical History: B6
Medications/Supplements: B6
Lab Results/Diagnostics:

Notes

B6

B6

3:43:39 PM

Hx: Owner is calling from out of town and reports pets ingested.

B6

B6

Family members are at eDVM with both pets. Both pets are asx. Owner does not have access currently to bottles for details on brands and confirming serving sizes and strength. Pills were in a daily container, no packaging ingested.

B6

A: Advised owner both pets should be examined for possible decontamination, monitoring and supportive care given the B6 dose. Vitamin D below a level of concern. Unknowns of product details could pose a risk to B6 is primarily a concern for sedation/ depression

Provided case #. Advised owner to give case # to eDVM to call for consult. CB 24/ 7 pm. CB if further info for products is available.

[B6] DVM [B6] 9:27:56 PM
Case notes from [B6]. Call occurred at 9pm

DVM: [B6]

Phone: [B6]

Fax: [B6]

Henry weight 37.2 kg

They induced emesis in both dogs but only [B6] had some pill fragments in his vomit. [B6] just had food and a marshmallow bag so they now think that [B6] was the only one who ingested the pills

[B6] DVM [B6] 9:56:21 PM

Entry delayed due to case locked. Call occurred at 9:05 pm.

Hx: Spoke to [B6]. Confirmed history though pet owners are providing some variable information on amount of pills ingested (they reported 6 days worth to us but up to 7 days worth to [B6]). The pet owners are also reporting in total mg doses so tablet numbers is unclear.

[B6] calculated [B6] possibly ingested with the history she was provided.

Henry vomited 15 large brown triangular pills of some type ([B6] suspects it is the [B6] though the quantity is different than expected) and 8 small white pills of some type (possibly [B6] though again different than expected quantities).

A: Discussed that the Vitamin D3 would have been ingested at a sub-toxic dose. The [B6] is therefore the potential ingestion of main concern. The other medications would have the ability to cause GI upset but would not be expected to cause any more severe or systemic toxicity.

Recommendations:

- Activated charcoal not recommended due to concerns for inducing possible electrolyte abnormalities which could be difficult to treat in dogs with concurrent heart disease
- Monitor both dogs with telemetry for tachycardia, tachyrrhythmias, or any other HR or rhythm abnormalities
- If pathologic ventricular tachycardia is noted administer lidocaine
- If tachyrrhythmias are noted administer a beta blocker
- Given the pre-existing heart disease in these patients, if arrhythmias occur treatment could be complicated
- If pets remain WNL for 8 hours they can discharge home
- If pets develop abnormalities they will likely require 12-48 hours in hospital
- If any additional abnormalities are noted please contact us for further treatment recommendations

Please call back if additional consultation is needed. Our veterinary staff are available 24/7. You may press 1 to bypass our greeting.

Sincerely,

[B6] DVM
Associate Veterinarian – Clinical Toxicology

B6 DVM

B6

1:00:38 PM

Delayed entry, case locked

B6

Call taken at 9:35 pm CST

HX:

DVM called to discuss dose recalculations after emesis and level of concern. Patient 1 returned all doses of B6. These are cut into triangles that were uniquely identifiable on emesis. The L-Carnitine were the white tablets returned. Questioning if concerns are present regarding the VitD3. Current B6. Both had NOVAs assessed and wnl.

A:

Advised that the dose of Vit D3 if ingested by either dog is not a dose of concern. Since B6 returned all the B6, the concern for cardiovascular toxicity is small. Since he has underlying cardiac disease I do recommend he be hospitalized overnight for telemetry. B6 can be discharged to home based on the updated history.

B6

DVM

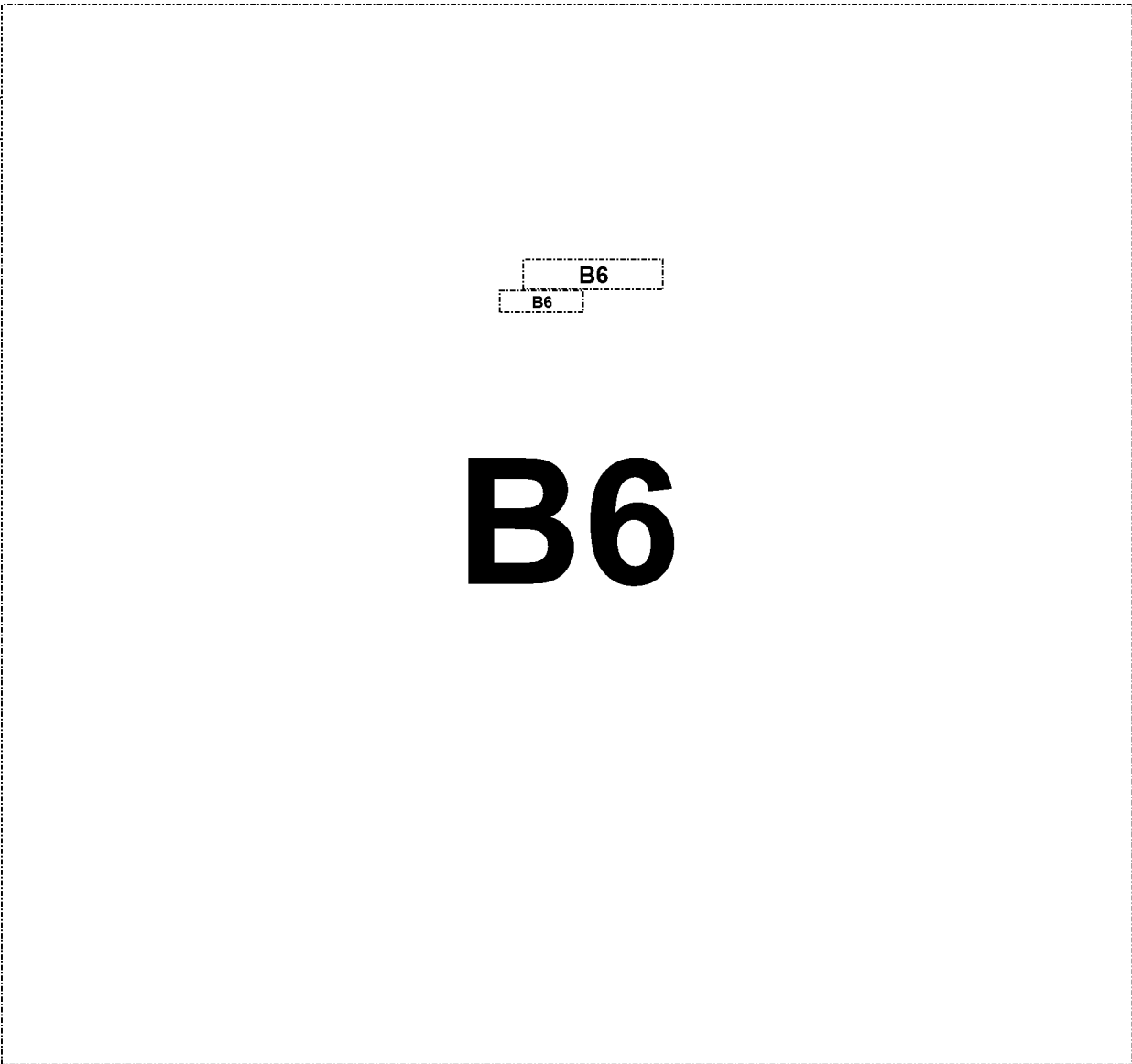
B6 DVM

B6 11:43:28 PM

Entry delayed due to case locked. Call occurred at 9:58 pm.

Hx: Spoke to B6 She has some further case updates. They are now sure that the 14 vomited tablets were B6 This accounts for all of the ingested B6 being returned in emesis. There are however new additions to the potentially ingested medication list including B6 and B6 The pet owners are still very sure that B6 ingested the medications in question. Both dogs remain entirely normal on exam.

B6 confirmed with the pet owner while we were on the phone that the dogs had already had their evening doses of their usual medications before this ingestion occurred.



Sincerely,

B6 DVM

Associate Veterinarian – Clinical Toxicology

B6

, DVM

B6

29:18 AM

Delayed entry, case locked

B6

Call taken at 10:46 pm

HX:

B6 called to see when to restart primary meds.

A:

Advised restart in AM

HX:

B6 and I both had entries prepared for this case to report chronologically. B6 had additional information regarding a possible sotalol and mexilitene exposure. Based on this information I will update B6 on revised redosing regimen. Call to B6 12:25 AM CST. B6 states both patients are stable.

A:

Advised B6 to have IM or cardiology assess B6 in the AM and allow an hands on exam and ECG assessment to predicate when to restart regular medications.

SOAP - Text

B6

B6

Patient: B6
Species: Canine
Breed: Boxer
Color: brindle
Doctor: B6

DOB: B6
Age: B6 Old
Sex: Neutered Male
Tag:

Phone: Primary - B6

Hx: Continued hospitalization for monitoring and supportive care after being admitted last night for possible medication ingestion – Vomiting induced – brought up food and pieces of marshmallow plastic bag. Baseline NOVA and BP WNL. Overnight he did well with no signs of toxicity; eating and drinking normally.

Historically B6 patient - history of DCM, suspect secondary to taurine-deficiency given improvement in appearance with diet change/supplementation (currently moderate LAE), borderline pulmonary hypertension. Normal cardiac medications – B6

B6

H/L: no heart murmur or arrhythmia, SSFP; normal BVS bilaterally, eupneic

B6

A: 2yr 2mth MN Boxer

Possible ingestion of B6 at toxic levels; Patient did well overnight, remained asymptomatic.

P: Continue current treatments - LRS @ 45ml/kg/day.
TGH today after 12hr mark (~9am) as he has remained asymptomatic.

B6 DVM

Assessment

B6

B6

Pet: **B6**
DOB:
Breed: Boxer
Sex: Neutered Male
Color: brindle

Visit Date: **B6**

Dear Colleague,

B6 continues to be hospitalized at **B6** for monitoring and supportive care after potentially ingesting numerous medications last night. He did well overnight and remained asymptomatic and the plan is for him to go home this morning.

Thank you for the referral and your continued support of **B6**. Please feel free to contact us if you need any more information regarding **B6**.

B6

Visit: 463170

Patient: B6

Species: Canine

Breed: Boxer

DOB: B6

B6

M

B6

WORKING DIAGNOSIS/PROBLEM LIST

RADIOGRAPHIC FINDINGS

B6

ingestion

BODY WEIGHT

32.7kg

TIME

9:00

RESUSCITATION CODE

B6

SPECIAL PROCEDURES FINDINGS

SURGICAL FINDINGS

PHYSICAL EXAMINATION

B6

B6

B6

DAY'S PLAN:

NURSING SHIFT SUMMARY

7 AM - 3 PM

3 PM - 11 PM

11 PM - 7 AM

X-RAY ECG HEIMLICH VALVE OXYGEN PARACENTESIS CVP SPECIAL PROCEDURE CATH BLD. TYPE

IN OUT

Patient: B6

| TIME | TREATMENT CHANGE | ACKNOWLEDGED | TIME | TREATMENT CHANGE | ACKNOWLEDGED |
|------|------------------------------|--------------|------|------------------|---------------|
| ① | INC | | 13 | B6 | |
| ② | telemetry | | 14 | | g12-ask @ Sam |
| ③ | wt q 240 | | 15 | | B6 |
| ④ | Temp q 12 | | 16 | | |
| ⑤ | HR q 4 | | 17 | | |
| ⑥ | LL/RE q 4 | | 18 | | |
| ⑦ | BPA q 4 | | 19 | | |
| ⑧ | mentation ✓ q 2 | | 20 | | |
| ⑨ | Sz watch, B6 | | 21 | | |
| ⑩ | IVF: LRS @ 62ml/hr | | 22 | | |
| ⑪ | walk o/s q 4 | | 23 | | |
| ⑫ | food + water ok FET @ 1144pm | | 24 | | |

8:00 AM
 4:00 PM
 12 MID
IDENTIFICATION

| TIME | BODY TEMP. | HEART RATE | PULSE QUAL. | RESP. RATE | MM COLOR | CRT | PCV | TS | BLOOD GLUCOSE | AZO | H ₂ O | URINE OUTPUT | TURN | THORACIC FLUID | AIR | TRACH CARE | OTHER |
|---------|------------|------------|-------------|------------|----------|-----|-----|----|---------------|-----|------------------|--------------|------|----------------|-----|------------|-------|
| 12 mid | | | | | | | | | | | | | | | | | |
| 1 am | | | | | | | | | | | | | | | | | |
| 2 am | | | | | | | | | | | | | | | | | |
| 3 am | | | | | | | | | | | | | | | | | |
| 4 am | | | | | | | | | | | | | | | | | |
| 5 am | | | | | | | | | | | | | | | | | |
| 6 am | | | | | | | | | | | | | | | | | |
| 7 am | | | | | | | | | | | | | | | | | |
| 8 am | | | | | | | | | | | | | | | | | |
| 9 am | | | | | | | | | | | | | | | | | |
| 10 am | | | | | | | | | | | | | | | | | |
| 11 am | | | | | | | | | | | | | | | | | |
| 12 noon | | | | | | | | | | | | | | | | | |
| 1 pm | | | | | | | | | | | | | | | | | |
| 2 pm | | | | | | | | | | | | | | | | | |
| 3 pm | | | | | | | | | | | | | | | | | |
| 4 pm | | | | | | | | | | | | | | | | | |
| 5 pm | | | | | | | | | | | | | | | | | |
| 6 pm | | | | | | | | | | | | | | | | | |
| 7 pm | | | | | | | | | | | | | | | | | |
| 8 pm | | | | | | | | | | | | | | | | | |
| 9 pm | | 120 | | 32 | pm | a | | | | | | | | | | | |
| 10 pm | | | | | | | | | | | | | | | | | |
| 11 pm | | | | | | | | | | | | | | | | | |

120 LFLH4 (14x3)

| | | | | |
|--------------------|-----------|----|--------------------------------|-----------------------|
| Visit: 463170 | | | WORKING DIAGNOSIS/PROBLEM LIST | RADIOGRAPHIC FINDINGS |
| Patient: B6 | B6 | | | |
| Species: Canine | | MN | | |
| Breed: Boxer | | | | |
| DOB: B6 | B6 | | | |

| | | | |
|-------------------------------|--|-----------------------------|-------------------|
| BODY WEIGHT: 33.4kg | | SPECIAL PROCEDURES FINDINGS | SURGICAL FINDINGS |
| TIME: 10 AM | | | |
| RESUSCITATION CODE: B6 | | | |
| | | | |

PHYSICAL EXAMINATION

B6

DAY'S PLAN:

NURSING SHIFT SUMMARY

| 7 AM - 3 PM | 3 PM - 11 PM | 11 PM - 7 AM |
|-------------|--------------|--------------|
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| X-RAY | ECG | HEIMLICH VALVE | OXYGEN | | PARACENTESIS | CVP | SPECIAL PROCEDURE | CATH | BLD. TYPE |
|-------|-----|----------------|--------|-----|--------------|-----|-------------------|--------------|-----------|
| | | | IN | OUT | | | | | |
| | | | | | | | Size 25 e-collar | Rfr 185 Snel | |

12

| TIME | TREATMENT CHANGE | ACKNOWLEDGED | TIME | TREATMENT CHANGE | ACKNOWLEDGED |
|------|--|--------------|------|------------------|--------------|
| | | ark | 13 | | |
| | | | 14 | | |
| | | | 15 | | |
| | | an | 16 | | |
| | | | 17 | | |
| | | | 18 | | |
| | | | 19 | | |
| | | | 20 | | |
| 9 | ad/c telemetry ad/c IVF & remove IVC @ 10am | | 21 | | |
| 10 | B6 9:35am | | 22 | | |
| 11 | | | 23 | | |
| 12 | | | 24 | | |

8:00 AM 4:00 PM 12 MID IDENTIFICATION

| TIME | BODY TEMP. | HEART RATE | PULSE QUAL. | RESP. RATE | MM COLOR | CRT | PCV | TS | BLOOD GLUCOSE | AZO | H ₂ O | URINE OUTPUT | THORNIC FLUID | THORACIC AIR | TRACH CARE | OTHER |
|------|------------|------------|-------------|------------|----------|-----|-----|----|---------------|-----|------------------|--------------|---------------|--------------|------------|-------|
|------|------------|------------|-------------|------------|----------|-----|-----|----|---------------|-----|------------------|--------------|---------------|--------------|------------|-------|

| | | | | | | | | | | | | | | | | |
|---------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 12 mid | | | | | | | | | | | | | | | | |
| 1 am | | | | | | | | | | | | | | | | |
| 2 am | | | | | | | | | | | | | | | | |
| 3 am | | | | | | | | | | | | | | | | |
| 4 am | | | | | | | | | | | | | | | | |
| 5 am | | | | | | | | | | | | | | | | |
| 6 am | | | | | | | | | | | | | | | | |
| 7 am | | | | | | | | | | | | | | | | |
| 8 am | | | | | | | | | | | | | | | | |
| 9 am | | | | | | | | | | | | | | | | |
| 10 am | | | | | | | | | | | | | | | | |
| 11 am | | | | | | | | | | | | | | | | |
| 12 noon | | | | | | | | | | | | | | | | |
| 1 pm | | | | | | | | | | | | | | | | |
| 2 pm | | | | | | | | | | | | | | | | |
| 3 pm | | | | | | | | | | | | | | | | |
| 4 pm | | | | | | | | | | | | | | | | |
| 5 pm | | | | | | | | | | | | | | | | |
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| 10 pm | | | | | | | | | | | | | | | | |
| 11 pm | | | | | | | | | | | | | | | | |

B6

B6

B6

B6

Emergency Authorization to Stabilize

Client's Name: _____

B6

B6

Pet's Name: _____

Your pet has been evaluated by a trained veterinary professional and requires immediate stabilization. Upon arrival to the Critical Care Unit, a veterinarian will examine your pet and order initial treatments (such as an IV catheter, oxygen treatment, IV fluids), other emergency medications and emergency blood tests.

It may be necessary to provide such medications and perform such tests *before* a doctor can speak to you about your pet's condition and prognosis. This initial stabilization can cost from \$300 to \$500 (in addition to the Emergency Exam fee). In such a case, our emergency doctors will speak to you regarding your pet's condition as soon as they can, but their first priority is to stabilize your pet.

Client AUTHORIZES Emergency Treatment and Fees

By signing your name in this box, you are indicating that you have read the above and you authorize emergency treatment for your pet. Your signature below also indicates that you intend to pay all related charges today.

Client Signature: _____

B6

Date: _____

B6

Client DECLINES Emergency Treatment

By signing your name in this box, you are indicating that you have read the above and are declining emergency treatment for your pet. You should understand that by doing so, your pet's condition may not only worsen, but may lead to further harm and/or death. Signing below indicates that you have read the above and agree to not hold _____ responsible for any harm caused by the delay or denial of such treatment.

Client Signature: _____

B6

Date: _____

B6

Employee Signature: _____

B6

B6

Nova Reference Ranges

B6
CANTIS
RAMCW
W TRAPNL
Gas Portex Syringe

| Canine Normals | | Feline Normals |
|----------------|-----------|----------------|
| pH | B6 | pH |
| pO2 | | pO2 |
| pCO2 | | pCO2 |
| SO2 | | SO2 |
| Na | | Na |
| K | | K |
| Cl | | Cl |
| Ca | | Ca |
| Mg | | Mg |
| Glu | | Glu |
| Lac | | Lac |
| Creat | | Creat |
| BUN | | BUN |
| HHb | | HHb |
| O2Hb | | O2Hb |
| MetHb | | MetHb |
| COHb | | COHb |
| Osmo | | Osmo |

Sample Profile
STP pHox Ultra

Printed: **B6** 10:02:36 PM
Analyzed: 10:00:31 PM
Analyzer ID: IDomeMaster

Barometer: 741.4 mmHg
Sample Type: Venous
Operator: 123456
Releaser: auto
Patient ID: **B6**
Patient Name:

Other Flags

Comments

| Test | Value | Units | Flags |
|-----------|-------|--------|-------|
| Na+ | 148.3 | mmol/L | |
| K+ | 4.29 | mmol/L | |
| Cl- | 112.3 | mmol/L | |
| Ca++ | 1.31 | mmol/L | |
| Glu | 98 | mg/dL | |
| Lac | 1.2 | mmol/L | |
| BUN | 17 | mg/dL | |
| Creat | 0.9 | mg/dL | |
| TCO2 | 24.7 | mmol/L | |
| BUN/Creat | 18.2 | mg/mg | |
| Osm | 296.3 | mOsm/k | |

B6

B6

B6

W NOVA Basic Panel - Accession

B6

Printed: August 02, 2018

B6

Patient Name: **B6**
Species: Canine
Breed: Boxer
Gender: Neutered Male
Color: brindle

Tests Included:
W Nova Basic Panel

W Nova Basic Panel

Date/Time: August 02, 2018 10:05 pm

B6

Patient

B6

Physician

B6

Req

193392

| Test | UoM | Flags | Reference Range |
|-------------|-----|-------|----------------------------|
| N NA | | | 142.00 - 150.00 |
| N K | | | 3.62 - 4.60 |
| N CL | | | 112.70 - 118.30 |
| N ICA | | | 1.15 - 1.34 |
| N GLU | | | 75.00 - 116.00 |
| N LACT | | | 0.70 - 2.80 |
| N BUN | | | 8.00 - 30.00 |
| N TCO2 | | | |
| N CREAT | | | 0.60 - 1.60 |
| N BUN/CREAT | | | |
| N OSMO | | | |

B6

B6

Client Name: **B6**
 Animal Name: **B6**
 Client Phone: **B6**
 MRN: **B6**
 Species: Canine
 Breed: Boxer
 DOB: **B6** Sex: M

Doctor: **B6**
 Clinic: **B6**
 Phone: **B6**
 Fax: **B6**

Accession: **B6**
 Collected: **B6**
 Received: **B6**
 Approval Date: **B6** 10:10 PM

W Nova Basic Panel

Final Report

| | Ref. Range/Males | |
|-------------|--------------------|---|
| N NA | 142.0-150.0 mmol/L | |
| N K | 3.62-4.60 mmol/L | |
| N CL | 112.7-118.3 mmol/L | L |
| N iCA | 1.15-1.34 mmol/L | |
| N GLU | 75-116 mg/dl | |
| N LACT | 0.70-2.80 mmol/L | |
| N BUN | 8-30 mg/dl | |
| N TCO2 | mmol/L | |
| N CREAT | 0.6-1.6 mg/dl | |
| N BUN/CREAT | calc | |
| N OSMO | mOsm/kg | |

B6

Accession number: **B6**
 END OF REPORT (Final)

B6

B6

Pet: **B6**
DOB:
Breed: Boxer
Sex: M
Color: brindle

Visit Date: August 28, 2017

Dear **B6** and Freeman,

Please see the accompanying cardiology report for our mutual patient, **B6**. I am thrilled that **B6** heart has improved since changing his diet and supplementing taurine and carnitine! He is such a nice dog with such a nice family, and it was wonderful to be able to give them some good news. Thank you for the referral and your continued support of **B6**. Please contact me if you need any more information regarding **B6**.

Sincerely,

B6

t. **B6** (Cardiology)
f. **B6** (Cardiology)
B6

B6

Acc. No: 223669

Phone: **B6**

Patient: **B6**

Species: Canine

Breed: Boxer

Color: brindle

Doctor: **B6**

DOB: **B6**

Age: **B6** Old

Sex: M

Tag:

Weight: 76.3 lbs.

Prior Medical History

As of 6/19/17

-Dilated cardiomyopathy (severe), r/o idiopathic, secondary to taurine-deficiency, myocarditis, other

-Borderline pulmonary hypertension

-Mildly elevated left ventricular outflow tract velocity (dx 6/2016)

-Normal sinus arrhythmia with no ventricular ectopy

Diagnostics 6/19/17:

Taurine: 47nmol/ml

B6 Seen through ER **B6** for Pimobendan ingestion/overdose.

B6 and his housemate **B6** presented to the emergency service tonight after getting into **B6**. Between the two of them they ate as much as 75mg; owner is unsure which of them ate it. Ingestion occurred 2-4 hours prior to presentation. Both dogs were acting normal at home.

Hospitalized for monitoring (bp, ECG) and supportive care (IVF)- both dogs did well.

MEDICATIONS:

B6

Presenting Complaint

Recheck echo

Current Medical History

General Complaints: Doing ok at home, O is concerned that he is becoming a finicky eater again. Currently eating RC boxer and O thinks this is the longest he has gone liking/eating the same food. Will eat some treats, but is also not as interested in PB pill pockets - possibly causes stomach upset. Loose stools but not diarrhea.

Coughing?: No

Sneezing?: No

Vomiting: No

Polyuria: No

Polydipsia: No

Diarrhea?: No

Diet?: RC Boxer (had nutrition consult with Dr. Freeman at Tufts)

Appetite: Normal

Any collapses or seizures?: No

Current Medications

Do you need any refills today?: No
First Cardiac Evaluation?: No
Referral Radiographs?: No

B6

Echocardiogram

Two Dimensional Description: Mogul was nervous, but good on the echo table and able to do the study unседated with two holders.

The left atrium appears moderately enlarged (appearance of enlargement and LA/Ao increased by small aortic root). The mitral valve appears normal. The left ventricular chamber is moderately dilated with mildly thin walls. Wall motion appears mildly depressed and somewhat asynchronous. The aortic root appears mildly small (breed variant) with normal aortic valve. The right atrium appears mildly dilated. The tricuspid valve appears normal. The right ventricular chamber is normal. The pulmonary artery and pulmonic valve are normal.

B6

PI: none
AI: none
Doppler Comments:

ECHOCARDIOGRAPHIC DIAGNOSIS:

ECHOCARDIOGRAPHIC DIAGNOSIS:
-Dilated cardiomyopathy, suspect secondary to taurine-deficiency given improvement in appearance with diet change/supplementation (currently moderate left atrial enlargement).
-Borderline pulmonary hypertension
-Mildly elevated left and right ventricular outflow tract velocities

Comparison to previous studies:
There has been significant improvement in the cardiac appearance since dx with DCM 2 months ago. All chamber sizes are smaller, there is less MR and TR, and contractility appears improved. LA measurements are fairly similar to the original echo one year ago (for asymptomatic murmur).

B6

Final Assessment

Final Diagnosis:
-Dilated cardiomyopathy, suspect secondary to taurine-deficiency given improvement in appearance with diet change/supplementation (currently moderate left atrial enlargement).
-Borderline pulmonary hypertension
-Mildly elevated left and right ventricular outflow tract velocities

Diagnostic Recommendations:
No further testing currently recommended.

Therapeutic Recommendations:

B6

Follow-Up:
Recheck echo 6 months (scheduled for March 1, 2018 at 1:30 pm).

Consulting Cardiologist: **B6** DVM; DACVIM (cardiology)

28 Aug 2017

Prior Medical History: As of 6/19/17
-Dilated cardiomyopathy (severe), r/o idiopathic, secondary to taurine-deficiency, myocarditis, other
-Borderline pulmonary hypertension
-Mildly elevated left ventricular outflow tract velocity (dx 6/2016)
-Normal sinus arrhythmia with no ventricular ectopy

Diagnostics 6/19/17:
Taurine: 47nmol/ml

B6 seen through ER; **B6** if **B6** ingestion/overdose.
B6 and his housemate **B6** presented to the emergency service tonight after getting into **B6** pimobendan. Between the two of them they ate as much as 75mg; owner is unsure which of them ate it. Ingestion occurred 2-4 hours prior to presentation. Both dogs were acting normal at home.
Hospitalized for monitoring (bp, ECG) and supportive care (IVF)- both dogs did well.

MEDICATIONS:

B6

SOAP - Text

Jul 29, 2017

B6

Phone: **B6**

Patient: **B6**
Species: Canine
Breed: Boxer
Color: brindle
Doctor: **B6**
DOB: **B6**
Age: **B6** Old
Sex: M
Tag:
Weight: 74.516 lbs. (33.8 kgs.)

Weight: 33.8 kgs.
Temperature: 101.8
Pulse: 120
Is this patient presenting for trauma?: No

Presenting Complaint: Ate pimobendan

History: **B6** and his housemate **B6** presented to the emergency service tonight after getting into **B6** pimobendan. Between the two of them they ate as much as 75mg; owner is unsure which of them ate it. Ingestion occurred 2-4 hours prior to presentation. Both dogs were acting normal at home.

Past medical history:
6/19/17
- Severe DCM
- Borderline pulmonary hypertension
- Mildly elevated left ventricular outflow tract velocity (dx 6/2016)

Current Medications/Supplements **B6**

CODE: default **B6**

Physical Exam:

B6

H/L: NSR, NMA, PSS; eupnic, BV clear, no crackles or wheezes or referred upper airway noise

B6

Poison control case # **B6**
Highest max possible dose 75mg (~2mg/kg)
Risk of tachycardia, hypotension, VPCs
Quickly absorbed- emesis, activated charcoal not recommended
IVF at maintenance rate to support blood pressure

monitor blood pressure, continuous ECG
beta blockers if persistent tachycardia

Plan:

B6

Discussion with Owner:

Discussed poison control recommendations with owner. Owner approved estimate, no news is good news overnight, will hear from daytime ER doctor in the morning.

B6

Assessment

B6

B6

Pet: **B6**
DOB:
Breed: Boxer
Sex: M
Color: brindle

Discharge Instructions

Date of visit: **B6**
Date of discharge:

Final Diagnosis:

Possible **B6** toxicity

Home Care Instructions:

B6 is a cardiac medication that can cause dangerous side effects at high doses, including increased heart rate, arrhythmias, and decreased blood pressure. Due to his history of heart disease, careful monitoring was recommended by **B6** was admitted to the hospital for monitoring and fluid therapy. He has done very well in the hospital.

Please continue to monitor **B6** at home for any signs of continuing illness, including vomiting, drooling, decreased appetite, weakness, collapse, and lethargy. If you notice any of these things, please have **B6** re-evaluated by a veterinarian.

Medications:

Continue all of **B6** medications as previously directed. The next doses for all medications will be this evening. Do not give any meds this morning.

Thank you for entrusting us with **B6** care! He was a wonderful patient. Please do not hesitate to contact us with any questions or concerns.

B6, DVM

B6

B6

B6

Pet: **B6**
DOB:
Breed: Boxer
Sex: M
Color: brindle

Dear Doctors,

Visit Date: July 28, 2017

B6 presented to our emergency service for evaluation after they got into **B6** pimobendan at home and ate approximately 75mg. They were admitted for monitoring, IV fluids, and continuous ECG. Please see attached case notes for additional details.

Thank you for the referral and your continued support of **B6**. Please contact me if you need any more information regarding **B6**.

B6

B6

SOAP - Text

B6

B6

Patient: B6
Species: Canine
Breed: Boxer
Color: brindle
Doctor: B6
DOB: B6
Age: B6 Old
Sex: M
Tag:
Weight: 74.516 lbs. (33.8 kgs.)

Phone: Home - B6

Weight: 33.8 kgs.
Temperature: 101.8
Pulse: 132
Panting: Yes

History
Continued hospitalization of 2 y/o MC Boxer after B6 ingestion.

B6

H/L: NMA, NSR, femoral PSS. BP has been normal overnight.

B6

Assessment

- 1. B6
2. history severe DCM

Plan

- Called poison control preexisting case line B6 symptoms could last up to 12 hours so if normal now, can go home. Can restart pimobendan tonight
- physical exam
- d/c telemetry, d/c IV fluids
- TGH this morning

B6

Assessment

B6

B6

Pet: **B6**
DOB:
Breed: Boxer
Sex: M
Color: brindle

Visit Date: **B6**

Dear Doctors,

B6 is doing well and will be going home this evening to resume care. He can restart all cardiac meds this evening. No problems were encountered in hospital.

Thank you for the referral and your continued support of **B6**. Please contact me if you need any more information regarding **B6**.

B6

B6

B6

Estimate

223669

B6

Reference: **B6** ingestion

Printed: **B6**

Patient: **B6**

| Description | Quantity | Amount |
|--|----------|-----------|
| Exam Emergency | 1 | B6 |
| IV Catheter Inpatient | 1 | |
| CCU Level 2 Hospitalization 0-12 Hours | 2 - 3 | |
| Medical Waste Fee | 1 | |
| Inpatient Telemetry Set up Fee | 1 | |
| Heart Monitor per hr. | 12 | |
| IV Fluids > 60lb per day | 1 Units | |
| Estimated Visit Total: | | |

I authorize treatment of my animal, pursuant to the foregoing Estimate. I understand that the Estimate totals above are based on a preliminary exam of my pet by **B6**. I acknowledge that this estimate may change due to my pet's condition, test results and response to treatment. I understand that if my pet's need for treatment changes, **B6** personnel will attempt to contact me and I may be asked to amend this estimate orally. If **B6** is unable to contact me, I understand that **B6** will render treatment in their best judgement. I acknowledge that I am responsible for the treatment of this animal and I promise to pay all related charges, including when this estimate is amended orally.

Date and time refers to when procedure was invoiced not performed. We apologize for any confusion this may cause. This invoice includes all charges that have been posted to your account at this time. In the event there are additional charges posted for your pet's care/treatment, we will contact you to arrange payment.

Share the Care!

B6 clients can receive a \$20 credit for themselves and a friend when they refer a new client to our General Medicine service.

Please visit **B6**

Signature:

B6

B6

Client Name: **B6**
Animal Name: **B6**
Client Phone: **B6**
MRN: **B6**
Species: Canine
Breed: Boxer
DOB: **B6** Sex: M

Doctor: **B6**
Clinic: **B6**
Phone: **B6**
Fax: **B6**

Accession: **B6**
Collected: 6/19/2017
Received: 6/19/2017
Approval Date: 6/22/2017 9:16 AM

Taurine Level (plasma)

Final Report

Ref. Range/Males

B6
10:29 AM

SENDOUT

See attached link

Accession number: **B6**
This report continues... (Final)

B6

Client name: **B6**
MRN: **B6**

Accession: **B6**

Report Print Date
Jun-22-2017 8:11:49 am

WISCONSIN VETERINARY DIAGNOSTIC LAB
WVDL-MADISON
UNIVERSITY OF WISCONSIN
445 EASTERDAY LANE
MADISON, WI 53706
Phone: (800) 608-8387 Fax: (847) 574-8085

Owner: **B6**

Accession Number: **B6**
Reference Number: **B6**
Case Coordinator: **B6**

To: **B6**

Received: 06/20/2017
Sampled:
Finalized: 06/22/2017

Phone: **B6**
Fax:

Final Report

TOXICOLOGY RESULTS

TAURINE

ANIMAL ID **B6**
SPECIMEN ID **B6**
SPECIMEN DESC PLASMA
TAURINE **B6** nmol/mL

COMMENTS1

Canine taurine ranges: normal plasma 60-120 nmol/mL critical level <40 nmol/mL; whole blood normal 200-350 nmol/mL critical level <150 nmol/mL.

THIS REPORT HAS BEEN AUTHORIZED BY **B6** WVDL LABORATORY DIRECTOR
IF YOU HAVE QUESTIONS REGARDING THIS REPORT, PLEASE CONTACT US AT 800-608-8387
SEE OUR WEBSITE AT WWW.WVDL.WISC.EDU
FOLLOW US ON FACEBOOK: WWW.FACEBOOK.COM/WISCONSINVETERINARYDIAGNOSTICLABORATORY
FOLLOW US ON TWITTER: WWW.TWITTER.COM/WVDL_LAB

The results listed above supersede any corresponding results which may have been included in the following previous reports for this Accession:
- 06/22/2017 08:10 am - Full Final Accession Report. (DVM)

B6

B6

Pet: **B6**
DOB:
Breed: Boxer
Sex: M
Color: brindle

Visit Date: June 19, 2017

Dear **B6**,

I was pleased to see that **B6** taurine level came back low, indicating there is a chance we can reverse the changes I saw on echo. I called and left a message for **B6** and am copying below an email I sent her about his diet:

Hi **B6**,

You probably already received my message with the news that **B6** taurine level came back as low. This is good news because it means there is a chance the heart enlargement and weakened heart muscle appearance may be reversible. Even prior to receiving the bloodwork results I was consulting with a nutritionist who shared my concerns that he could have low taurine related to his diet. She expressed concern not just about the salmon based diet, but about the current diet as well based on the manufacturer/brand. So in addition to the taurine supplement, I recommend we switch **B6** to a diet we are sure is complete and balanced according to AAFCO feeding trials or by analysis of the actual diet (not a prediction based on recipe) to ensure it meets AAFCO nutrient profiles (AAFCO is the Association of American Feed Control Officials, a non-profit organization that sets standards for both animal feeds and pet food in the US). That may sound daunting, but there are a lot of great pet food manufacturers out there who meet these stringent requirements.

There are a lot of diet misconceptions and marketing information that makes diet selection very confusing for pet owners. I highly recommend the website set up by the Tufts veterinary school nutrition team at www.petfoodology.org. There are so many wonderful articles on there (I just spent a half hour surfing around because it is such wealth of great info!). I want to draw your attention to the great article on the risks of raw diets (<http://vetnutrition.tufts.edu/2016/01/raw-diets-a-healthy-choice-or-a-raw-deal/>) and the one

about the hype around grain-free diets (a pet peeve of mine) (<http://vetnutrition.tufts.edu/2016/06/grain-free-diets-big-on-marketing-small-on-truth/>). In short, since there is concern that [B6] may have some food sensitivities, I encourage you to work with one of the nutritionists at either Tufts or [B6] to find a diet that will work for him, or at least that we switch him to a diet by a company who has done the research and due diligence to ensure a complete and balanced diet.

Meanwhile, you should continue the taurine and L-carnitine supplements, and the pimobendan as prescribed. It would be great to see [B6] back sooner than the 3 month recheck however- to take a quick peek at his heart to see if (hopefully) things are changing for the better, and to recheck a taurine level. I think around 6 weeks from now makes sense, so let me know if you are interested in scheduling this, or if you have any questions.

Best,

[B6]

Thank you for the referral and your continued support of [B6]. Please contact me if you need any more information regarding [B6].

Sincerely,

[B6]

19 Jun 2017

Prior Medical History: As of 6/30/16

- Mildly elevated left and right ventricular outflow tract velocities: suspect normal variant +/- very mild aortic stenosis.
- Impression of mild left atrial enlargement: r/o age-related, other variant of undetermined cause

SOAP - Cardiology

Jun 19, 2017

B6

Phone: Home: B6

Patient: B6
Species: Canine
Breed: Boxer
Color: brindle
Doctor: B6
DOB: B6
Age: B6 Old
Sex: M
Tag:
Weight: 69.225 lbs. (31.4 kgs.)

Weight: 31.4 kgs.

Prior Medical History

As of 6/30/16

- Mildly elevated left and right ventricular outflow tract velocities: suspect normal variant +/- very mild aortic stenosis.
- Impression of mild left atrial enlargement: r/o age-related, other variant of undetermined cause

Presenting Complaint

Routine recheck

Current Medical History

General Complaints: O states that B6 has had 2 episodes since last visit, First episode was awhile ago (o not sure how long) in B6 He was running around with daughter and then acting totally out of it, staring at the ground, weak but did not lose consciousness for around 30 min. Brought to ER in B6 but he was acting normal by the time they got there and they did not find any abnormalities on PE. Thursday am this happened when B6 was running with B6 in the back yard, and side swiped a bush, then stood up and seemed drunk/out of it (moving front legs in uncoordinated/crossing over fashion), lasted 5 min. then went back to normal. O did notice that on Thursday Gums were very pink during episode (not pale). No BM/urination/hypersalivation during episodes. Yesterday was doing "a ton" of reverse sneezing according to O. Great energy level otherwise. Does now have a good appetite, O has seen a kinesthesiologist due to low appetite. B6 had been on strictly salmon based diet for past year, but they recommended changing/rotating protein sources (now beef and venison)- changed a few weeks ago and he is eating better.

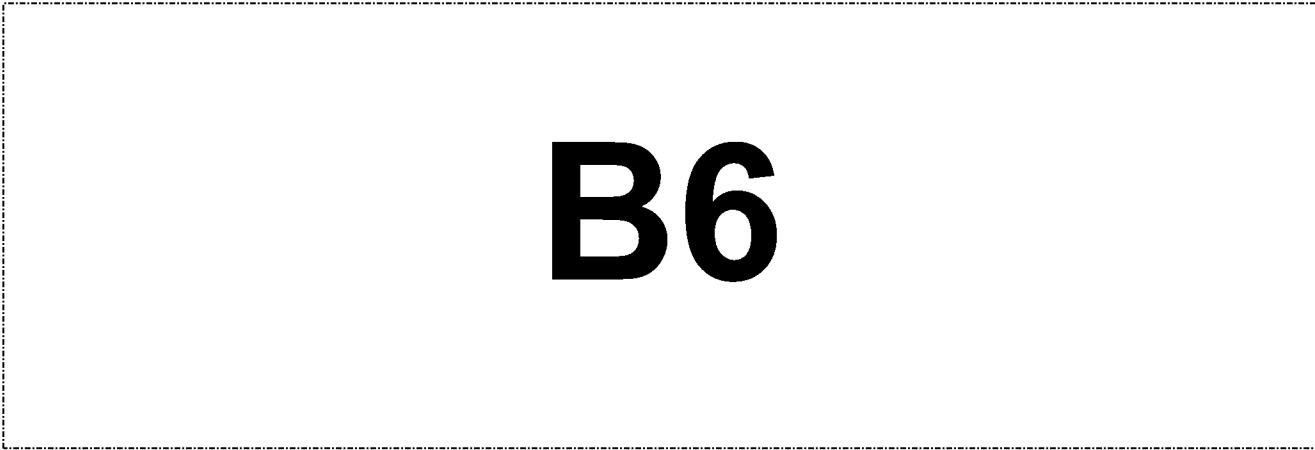
Coughing?: No
Sneezing?: Yes
Vomiting: No
Polyuria: No
Polydipsia: No
Diarrhea?: No

Diet?: Was on Go Fresh limited ingredient salmon diet for about a year. A few weeks ago switched to Go Fresh venison and Fresh Now beef, with a raw patty at lunchtime (o unsure brand- something with two people's names)

Appetite: Normal
Any collapses or seizures?: Yes

Current Medications

Do you need any refills today?: No
First Cardiac Evaluation?: Yes
Referral Radiographs?: No



Echocardiogram

Two Dimensional Description: Given [B6] history of panicked flailing on the echo table- we gave him [B6] prior to echo. This provided ample/heavy sedation (next time could try without or give 1/2 that dose).

The left atrium is severely enlarged. The mitral valve appears normal. The left ventricular chamber is moderately dilated with mildly thin walls and severely globally depressed wall motion. The aortic root appears mildly small (breed variant) with normal aortic valve. The right atrium is moderately dilated. The tricuspid valve appears normal. The right ventricular chamber is mildly dilated. The pulmonary artery and pulmonic valve are normal.



B6

ECHOCARDIOGRAPHIC DIAGNOSIS:

ECHOCARDIOGRAPHIC DIAGNOSIS:

- Dilated cardiomyopathy (severe), r/o idiopathic, secondary to taurine-deficiency, myocarditis, other
- Borderline pulmonary hypertension
- Mildly elevated left ventricular outflow tract velocity (dx 6/2016)

Comparison to previous studies:

There has been significant increase in left atrial size (from 3.86 cm on 2D one year ago), in left ventricular size (from 4.38 cm one year ago) and decrease in %FS (from 30.8% one year ago). MR and TR are new (suspect secondary to annular stretch). The right atrium and ventricle subjectively appear somewhat enlarged as well.

Electrocardiogram

Other Findings: ECG recording throughout the echo study showed normal sinus arrhythmia at 65-95 bpm (mostly ~70 bpm) with no ventricular ectopy recorded.

ELECTROCARDIOGRAPHIC DIAGNOSIS:

Normal sinus arrhythmia

B6

Final Assessment

Final Diagnosis:

- Dilated cardiomyopathy (severe), r/o idiopathic, secondary to taurine-deficiency, myocarditis, other
- Borderline pulmonary hypertension
- Mildly elevated left ventricular outflow tract velocity (dx 6/2016)
- Normal sinus arrhythmia with no ventricular ectopy

Diagnostic Recommendations:

Submitted plasma taurine level.

If woozy episodes recur- recommend holter monitor (owner to also try to video episode).

Therapeutic Recommendations:

B6

historically in breed and unable to check blood levels). O to give TID if feasible financially (L-carnitine can be quite expensive).
-Hold off on ACE-inhibitor for now (given borderline low bp and poster abstract at recent ACVIM forum showed pre-clinical DCM Irish Wolfhound's did worse with pimo+ACE-inhibitor vs. pimo alone).

Follow-Up:

Recheck 3 months with echocardiogram +/- thoracic radiographs (scheduled for September 11 at 9:30 am)

Consulting Cardiologist: B6 DVM; DACVIM (cardiology)

B6

B6

Pet: **B6**
DOB:
Breed: Boxer
Sex: M
Color: brindle

Visit Date: June 19, 2017

Dear **B6**

Please see the accompanying cardiology report for our mutual patient, **B6**. I was so sad to see that **B6**'s heart has changed quite a bit in the last year, and he now appears to have severe dilated cardiomyopathy. He had been on a limited ingredient salmon diet, only recently switched to beef and venison based diet, so I hold some hope that this may be a taurine deficiency manifestation (would be much better prognosis for him- so fingers crossed!). We have a taurine level pending, but of course this may not reflect historic deficiency due to his recent diet change. Meanwhile, I have prescribed **B6** and recommended **B6**. **B6** has had two episodes of seeming woozy/disoriented and "out of it" after exertion, but they do not sound classic for arrhythmia-related (one episode lasted 30 minutes) and his ECG today was normal. We will continue to monitor for now (perhaps they were related to low output from systolic dysfunction and pimobendan will help). If they recur, we will check a 24 hour holter monitor (with **B6** bad luck I wouldn't put it past him to also have a neurologic condition!). Thank you for the referral and your continued support of **B6**. Please contact me if you need any more information regarding **B6**.

Sincerely,

B6

B6

B6

Pet: **B6**
DOB:
Breed: Boxer
Sex: M
Color: brindle

Visit Date: June 30, 2016

Dear **B6**,

Please see the accompanying cardiology report for our mutual patient, **B6**. Thank you for the referral and your continued support of **B6**. Please contact me if you need any more information regarding **B6**.

Sincerely,

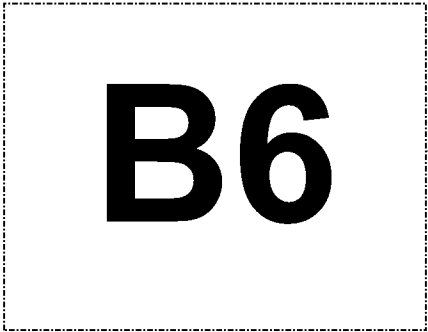
B6

DVM, DACVIM (Cardiology)

B6

SOAP - Cardiology

Jun 30, 2016



Patient: B6

DOB: B6

Species: Canine

Age: B6 Old

Breed: Boxer

Sex: M

Color: brindle

Tag:

Doctor: B6

Weight: 55.2 lbs. (25.038 kgs.)

Phone: Home - B6

Weight: 55.2 lbs.

Prior Medical History

6/16/16: rDVM recurrence of facial angioedema (other side now). T x with B6 B6

MEDICATIONS:

B6 PO BID

6/10/16: rDVM: facial angioedema. Tx with B6 B6

5/26/16: rDVM records: RFL lameness after running into a table.

5/17/16: rDVM records: possible Daphne plant ingestion. P wasn't seen, O called poison control.

4/26/16 - rDVM: growth on foot, suspect histiocytoma.

3/29/16 - Presented to AAMC for possible B6 ingestion (other pet in HH medication). B6, discharged: o to monitor at home.

B6 rDVM rads: clear

B6 - Presented to B6 ADR: c/v/d, anorexia, and lethargy. Tx with IVF, supportive care. Rx'd B6

Presenting Complaint

New patient - HM, needs neuter clearance

Current Medical History

B6

Echocardiogram

Two Dimensional Description: **B6** was very nervous, stiff, intermittently flailing on the echo table. Able to complete study with two holders.

The left atrium appears enlarged, although some of this appearance is related to small aortic root (leaving final impression of equivocal to mild enlargement). The mitral valve is normal. The left ventricular chamber is normal size with normal wall thicknesses and normal wall motion. The aortic root and proximal aorta appear narrow, with no discrete ridges of narrowing in the subaortic region seen. The aortic valve appears normal. The right atrium and ventricle appear

equivocally dilated. The tricuspid valve appears normal. The pulmonary artery and pulmonic valve are normal.

B6

ECHOCARDIOGRAPHIC DIAGNOSIS:

ECHOCARDIOGRAPHIC DIAGNOSIS:

- Mildly elevated left and right ventricular outflow tract velocities: suspect normal variant +/- very mild aortic stenosis.
- Impression of mild left atrial enlargement: r/o age-related, other variant of undetermined cause

Final Assessment

Final Diagnosis:

- Mildly elevated left and right ventricular outflow tract velocities: suspect normal variant +/-

very mild aortic stenosis.

-Impression of mild left atrial enlargement: r/o age-related, other variant of undetermined cause

Diagnostic Recommendations:

No further cardiac testing currently recommended.

Therapeutic Recommendations:

No cardiac medications currently recommended. [B6] appears to be a good anesthetic candidate for future neutering. Out of an abundance of caution (regarding possible mild aortic stenosis), recommend perioperative antibiotics, and avoid agents which would promote tachycardia (ie. use anti-cholinergics only if needed for intraop bradycardia).

Follow-Up:

Recheck echocardiogram 1 year.

Consulting Cardiologist: [B6] DVM; DACVIM (cardiology)

B6

PAGE: 3

PATIENT NAME

B6

B6

Bayer

m

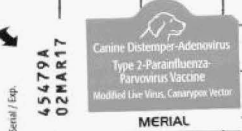
OWNER'S NAME

B6

MEDICAL RECORD

| MO. | DATE | | PROB. NO. | SOAP |
|-----|------|-----|--------------------------|------|
| | DAY | YR. | | |
| 2 | 12 | 16 | (cont.) | |
| 2 | 13 | 16 | | |
| 2 | 22 | 16 | | |
| 2 | 23 | 16 | | |
| 2 | 26 | 16 | CP wt: 32.4 T-101° | |
| 3 | 29 | 16 | | |

B6



Patient: B6

B6

PAGE: 4

PATIENT NAME B6 B6 boxer M OWNER'S NAME B6

| MO. | DATE | | PROB. NO. | SOAP |
|-----|------|-----|-----------|-----------------------|
| | DAY | YR. | | |
| 4 | 5 | 16 | | |
| 4 | 26 | 16 | | CP wt 46.7 10.6 |
| | | | | (PM) ~ 3:30 |
| | | | | (PM) 4:40 |
| | | | | (PM) 7:30 |
| | | | | (PM) 8:30 |
| 4 | 27 | 16 | | (AM) 8am |

B6

MEDICAL RECORD

VISIT: 1/4/13/

B6

Patient: B6
Species: Canine
Breed: Boxer
DOB: B6

M

Triage Sheet

Charges done: _____ Initials: _____

B6

Patient Name: _____ Old ID Number: _____ Date: _____

Vitals:

Wgt: 16.6 kg
Resp Rate/ Effort: 24 / 0
MM/CRT: OK

Temp: 102.0
Heart Rate: 128

Lab Work:

NOVA(basic) / PCV/TS PCV: _____ TS: _____

BG BG: _____ mg/dL

NOVA other: _____

BP BP: _____ Cuff#: _____ Limb: _____

CBC

PLI Snap _____ Spec(send out)

Chem

LAC LAC: _____

Smear

UA Culture

PT/PTT PT _____ PTT _____

4DX HW: _____ Lyme: _____ Anaplasma: _____ E.Canis: _____

Felv/FIV Felv: _____ FIV: _____

IVC Place: _____ Gauge: _____ Int: _____ IVC #2 Place: _____ Gauge: _____ Int: _____

Radiographs:

CXR: _____ Views: _____

AXR: _____ Views: _____

Sedation: Yes

Sedation Protocol: _____

Other Notes: (IVC, Bolus, Etc...)

Med _____ mg Route _____ Med _____ mg Route _____ Med _____ mg Route _____

Bolus _____ mls./ _____ mins Bolus _____ mls./ _____ mins Bolus _____ mls./ _____ mins

SQ Fluids _____

0.6 mg

B6

7:50 am

B6

18 mg SQ after 7:54 am

Patient: B6

PLACE LABEL HERE

Charges done: _____ Int: _____

HISTORY / TRIAGE

SHEET

Patient Name: _____ Old ID Number: _____ Date: _____

Presenting Complaint: _____

History: _____

Current Medical Conditions:

Current Medications:

Other:

Visit: 155468

Patient: **B6**

Species: Canine

Breed: Boxer

DOB: **B6**

B6

M

B6



1602120012

B6

CAITL
RAMCW
W ABXSMP
Serum Separator (SST)

Abaxis Chemistry

Abaxis Liver Panel

B6

Comprehensive Diagnostic

12 Feb 2016 11:10 AM

Sample Type: Dog

Patient ID: 1602120012

Sample ID: 1602120012

Rotor Lot Number: 5445AC4

Serial Number: 0000V14317

| | | |
|------|----------|--------|
| ALB | 2.5-4.4 | g/dL |
| ALP | 20-150 | U/L |
| ALT | 10-118 | U/L |
| AMY | 200-1200 | U/L |
| TBIL | 0.1-0.6 | mg/dL |
| BUN | 7-25 | mg/dL |
| CA | 8.6-11.8 | mg/dL |
| PHOS | 2.9-6.6 | mg/dL |
| CRE | 0.3-1.4 | mg/dL |
| GLU | 60-110 | mg/dL |
| NA+ | 138-160 | mmol/L |
| K+ | 3.7-5.8 | mmol/L |
| TP | 5.4-8.2 | g/dL |
| GLOB | 2.3-5.2 | g/dL |

B6

QC
HEM 0 0 ICT 0

30 Jun 2016

Prior Medical History: 6/16/16: rDVM recurrence of facial angioedema (other side now).
Tx with [B6]

6/10/16: rDVM: facial angioedema. Tx with [B6]
at [B6]

[B6] rDVM records: RFL lameness after running into a table.

[B6] rDVM records: possible Daphne plant ingestion. P wasn't seen, O called
poison control.

4/26/16 - rDVM: growth on foot, suspect histiocytoma.

[B6] - Presented to [B6] for possible [B6] (other pet in HH
medication). [B6] gav [B6], discharged: o to monitor at home.

2/26/16: rDVM rads: clear

[B6] Presented to [B6] ADR: c/v/d, anorexia, and lethargy. Tx with IVF,
supportive care. Rx'd [B6]

SOAP - Cardiology

Jun 30, 2016

B6

Patient: [B6]

Species: Canine

Breed: Boxer

Color: brindle

Doctor: [B6]

DOB: [B6]

Age: [B6] Old

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Tag:

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kgs.)

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B6 - Presented to **B6** ADR: c/v/d, anorexia, and lethargy. Tx with IVF, supportive care. Rx'd **B6**

Presenting Complaint

New patient - HM, needs neuter clearance

Current Medical History

General Complaints: Doing well. Good energy, good appetite.

Coughing?: No

Sneezing?: No

Vomiting: No

Polyuria: No
Polydipsia: No
Diarrhea?: No
Diet?: NowFresh kibble
Appetite: Normal
Any collapses or seizures?: No

Current Medications

Do you need any refills today?: No
First Cardiac Evaluation?: No
Referral Radiographs?: No



B6

Echocardiogram

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No further cardiac testing currently recommended.

Therapeutic Recommendations:

No cardiac medications currently recommended. **B6** appears to be a good anesthetic candidate for future neutering. Out of an abundance of caution (regarding possible mild aortic stenosis), recommend perioperative antibiotics, and avoid agents which would promote tachycardia (ie. use anti-cholinergics only if needed for intraop bradycardia).

Follow-Up:

Recheck echocardiogram 1 year.

Consulting Cardiologist: **B6** DVM; DACVIM (cardiology)

Prior Medical History: 6/16/16: rDVM recurrence of facial angioedema (other side now).

T x with **B6**

MEDICATIONS:

B6

6/10/16: rDVM: facial angioedema. Tx with **B6**

B6

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B6 - Presented to **B6** or possible **B6** ingestion (other pet in HH medication). **B6** discharged: o to monitor at home.

2/26/16: rDVM rads: clear

B6 Presented to **B6** ADR: c/v/d, anorexia, and lethargy. Tx with IVF, supportive care. Rx'd **B6**

SOAP - Text

B6

B6

Patient: **B6**
Species: Canine
Breed: Boxer
Color: brindle
Doctor: **B6**

DOB: **B6**
Age: **B6** Old
Sex: M
Tag:
Weight: 28.881 lbs. (13.1 kgs.)

Phone: **B6**

Panting: No
Is this patient presenting for trauma?: No

Patient Result - Text: History: 5-6 months old; o has had since puppy. UTD on vaccines. On HW preventative, not yet on flea/tick preventative. No travel history, from **B6** Here previously for pneumonia; also hx of murmur which appears to have resolved at last vet visit. Diet: Fresh now large breed puppy food. Current/chronic meds/supplements: none

About an hour ago o gave other dog **B6** ablets with treats; o daughter said she saw **B6** eating something that may have been the tablet but o not sure (80% he didn't).

T: 102.0 F P: 128 R: 24
Weight: 18.6 kg

B6

A:
Possible ingestion of **B6** (ng/kg dose) - risk for GI effects,
bradycardia, hypotension
Currently clinically normal

P:
B6

Contact APC (see below).
Animal Poison control **B6**
Discussion/recommendations from APC: Unlikely to see any serious adverse effects;
max therapeutic dose 10 mg/kg. Mild hypotension about 8 hrs post exposure, resolved
with IVF alone. Signs resolved within 12 hours post exposure. Recommend admit for
the day, monitor HR/rhythm, BP. Call back if any issues develop.

Discussed APC recommendations with o; o aware of potential side effects and risks.
She is fairly sure he did not ingest mexiletine. O elects to monitor closely at home
through the day today; will call or return if any abnormal behavior.

B6, DVM

Assessment

Problem List

Diagnosis

B6

B6

Pet: **B6**
DOB:
Breed: Boxer
Sex: M
Color: brindle

Visit Date: **B6**

Dear Colleague,

B6 presented to our **B6** emergency service this morning after he possibly ingested **B6** around 6:45 am. On presentation **B6** was bright and alert, well hydrated and otherwise stable. Physical exam was within normal limits. Emesis was induced (**B6**) and **B6** vomited his breakfast but no obvious evidence of **B6**. Animal Poison Control was contacted, and hospitalization through the day was recommended to monitor for bradycardia and hypotension. **B6** was fairly certain that **B6** did not ingest the capsule, and elected to monitor **B6** closely at home through the day. If **B6** develops any abnormal signs, she will have him reevaluated immediately. **B6** received **B6** prior to discharge.

Thank you for the referral and your continued support of **B6**. Please contact me if you need any more information regarding **B6**.

Sincerely,

B6 DVM
Emergency/Critical Care service

B6

Client Name: **B6** (223669)

Animal Name: **B6**

Client Phone: **B6**
MRN: 1373024

Species: Canine

Breed: Boxer

DOB: **B6** Sex: M

Doctor:
Clinic:

B6

Phone
Fax:

Accession: **B6**
Collected:
Received: **B6**
Approval Date: **B6** 1:53 AM

Fecal Zinc Sulfate Centrifugation (fecal float)

Ref. Range/Males

B6

4:14 PM

FECAL

B6

Fecal Giardia ELISA

Ref. Range/Males

B6

4:14 PM

FECALG

B6

Accession number: **B6**
END OF REPORT (Final)

B6

Client Name: **B6**
Animal Name: **B6**
Client Phone: **B6**
MRN: **B6**
Species: Canine
Breed: Boxer
DOB: **B6** Sex: M

Doctor: **B6**
Clinic: **B6**
Phone: **B6**
Fax: **B6**

Accession: **B6**
Collected: **B6**
Received: **B6**
Approval Date: **B6** 2:27 PM

W Nova Basic Panel

| | Ref. Range/Males | B6 11:09 AM |
|-------------|--------------------|-----------------------|
| N NA | 142.0-150.0 mmol/L | B6 |
| N K | 3.62-4.60 mmol/L | |
| N CL | 112.7-118.3 mmol/L | |
| N iCA | 1.15-1.34 mmol/L | |
| N GLU | 75-116 mg/dl | |
| N LACT | 0.70-2.80 mmol/L | |
| N BUN | 8-30 mg/dl | |
| N TCO2 | mmol/L | |
| N CREAT | 0.6-1.6 mg/dl | |
| N BUN/CREAT | calc | |
| N OSMO | mOsm/kg | |

B6
END OF REPORT (Final)

Visit: None

Patient: B6

B6
M

Species: Canine

Breed: Boxer

DOB: B6

B6

Sample Profile
STP pHOX Ultra

Printed: B6 02:14:42 PM
Analyzed: B6 11:58:06 AM
Analyzer ID: B6

Sample #:
Barometer:
Sample Type:
Operator:
Releaser:
Patient ID:
Patient Name:

B6

Other Flags

Comments

Test
Na+
K+
Cl-
Ca++
Glu
Lac
BUN
Creat
TCO2
BUN/Creat
Osm

B6

B6

Comprehensive Diagnostic

12 Feb 2016 11:10 AM
Sample Type: Dog
Patient ID: 1602120012
Sample ID: 1602120012
Rotor Lot Number: 5445A04
Serial Number: 0000V14317

| | | |
|------|----------|--------|
| ALB | 2.5-4.4 | g/dL |
| ALP | 20-150 | U/L |
| ALT | 10-118 | U/L |
| AMY | 200-1200 | U/L |
| TBIL | 0.1-0.6 | mg/dL |
| BUN | 7-25 | mg/dL |
| CA | 8.6-11.8 | mg/dL |
| PHOS | 2.9-8.6 | mg/dL |
| CRE | 0.3-1.4 | mg/dL |
| GLU | 60-110 | mg/dL |
| NA+ | 138-160 | mmol/L |
| K+ | 3.7-5.8 | mmol/L |
| TP | 5.4-8.2 | g/dL |
| GLOB | 2.3-5.2 | g/dL |

QC
HEM 0 0 ICT 0

SOAP - Text

B6

B6

Patient: B6
Species: Canine
Breed: Boxer
Color: brindle
Doctor: Simon,
Brooke

DOB: B6
Age: B6 Old
Sex: M
Tag:
Weight: 12.9 lbs. (5.851
kgs.)

Phone: Home - B6

Panting: No

Patient Result - Text: B6 has done well overnight. He has been eating well and he is on oral B6. He been out od oxygen since 8:00 PM. He has been comfortable in isolation. RR has been normal and coughing is very rare. He should be able to go home today.

Assessment

Problem List

Patient Problem List:

Bronchopneumonia - B6
Diarrhea - B6

Diagnosis

SOAP - Text

B6

B6

Patient: **B6**

Species: Canine

Breed: Boxer

Color: brindle

Doctor: **B6**

DOB: **B6**

Age: **B6** Old

Sex: M

Tag:

Weight: 28.881 lbs. (13.1 kgs.)

Phone: Home - **B6**

Weight: 13.1 kgs.
Temperature: 101.6
Pulse: 140
Respiration: 28
Panting: No
Is this patient presenting for trauma?: No

Patient Result - Text: Day 2 hospitalization, admitted at noon on **B6**
B6 was admitted for concerns secondary to increased respiratory effort and cough. CXR consistent with left lung consolidation secondary to presumed bacterial pneumonia. Overnight, he has done very well and is no longer coughing. He has not had diarrhea (or a bowel movement) since admission. He is receiving medications orally without challenge.

S: BAR, very nice pup, MM pink and moist, CRT < 2 seconds, BCS 5/9

B6

CV: I/VI systolic murmur, NSR, f-PSS

B6

A:

1. Bronchopneumonia, tracheobronchitis
2. Diarrhea - r/o parasitic vs. dietary indiscretion vs. IBS vs. other
3. I/VI systolic murmur - innocent vs. pathologic

Current therapy:

B6

Plan:

1. Discharge today with oral medications

B6

DVM

Assessment

Problem List

Patient Problem List:

B6

Diagnosis

B6

B6

Pet: **B6**

DOB: **B6**

Breed: Boxer

Sex: M

Color: brindle

Visit Date: **B6**

I just wanted to let you know that **B6** was discharged today! He looks much brighter and is no longer coughing or having diarrhea. His medications are listed below. And, today's AM SOAP is sent along as well.

Medications:

- 1) Doxycycline (20 mg/ml) - give 3.25 mL by mouth every 12 hours
- 2) Metronidazole (250mg tablets) - give 1/2 tablet by mouth every 12 hours

Thank you for the referral and your continued support of **B6**. Please contact me if you need any more information regarding **B6**.

B6

SOAP - ECC

B6

B6

Patient: B6
Species: Canine
Breed: Boxer

Color: brindle

Doctor: B6

DOB: B6
Age: B6 Old
Sex: M

Tag:

Weight: 28.44 lbs. (12.9 kgs.)

Phone: Home - B6

Weight: 12.9 kgs.

Prior Medical History

Diarrhea since Tuesday. No diet . No vomiting until last night. He is known for dietary indiscretion and chews things he should not.. He has a heart murmur.

Presenting Complaint

He has had diarrhea for a few days (started on Tuesday- loose pudding like stool. He has not been finishing his food for the past three days. His appetite appeared to improve a bit yesterday afternoon and he ate well. He started coughing (first time) last night. The owner also reports he has been vomiting up foam.

Current Medical History

Is this patient presenting for trauma?: No

PU/PD: No

Where obtained/how long owned: The owners got him from a breeder in B6 in December.

Travel History: The family travels to B6 with him. He was in B6 last two weeks ago. Has been going to two play groups so far.

Toxin Exposure: No known exposure to toxins.

Diet/Appetite: He is fed Now Fresh natural dog food. His appetite has been poor but he ate well yesterday afternoon.

Vaccination Status: DHPP 2/3, BORDA 2/3 Rabies (?) 2/3
Indoor/Outdoor: Indoor, Outdoor

B6

Assessment

Problem List

Patient Problem List:

B6

CLIENT COMMUNICATION

R/O

1. Contagious Canine tracheobronchitis
2. Aspiration pneumonia
3. Other.
4. Diarrhea- Giardia vs worms vs diet vs other.

PLAN

1. Thorax three view radiographs- radiology report pending.
2. **B6**
3. W Abaxis pending
4. Fecal the owner will drop off a sample here or at rDVM

Medications

B6

Diagnosis

/div>

B6

Estimate

B6

Reference:

B6

Printed:

Patient:

B6

| Description | Quantity | Amount |
|-----------------------------------|----------|-------------|
| Exam Emergency | 1 | <h1>B6</h1> |
| Thorax 3 view | 1 | |
| IV/IM Sedation Diagnostic Imaging | 1 | |
| W Abaxis General Profile | 1 | |
| W ProCyte Dx CBC | 1 | |
| Medical Waste Fee | 1 | |

Estimated Visit Total:

I authorize treatment of my animal, pursuant to the foregoing Estimate. I understand this Estimate High Total is based on a preliminary exam of my pet by **B6**. I understand this Estimate may change due to my pet's condition, test results, and response to treatment. If my pet's need for treatment changes, **B6** personnel will attempt to contact me and I may be asked to amend this Estimate orally. If **B6** is unable to contact me, **B6** will render treatment in their best judgment. I understand I am responsible for the treatment of this animal and I promise to pay all related charges, including when this Estimate is amended orally.

This invoice includes all charges that have been posted to your account at this time. In the event there are additional charges posted for your pet's care/treatment, we will contact you to arrange payment.

Share the Care!

Angell clients can receive a \$20 credit for themselves and a friend when they refer a

Please visit **B6** for

ice.

Signature:

B6

B6

B6

Pet: **B6**
DOB: **B6**
Breed: Boxer
Sex: M
Color: brindle

Visit Date: **B6**

Dear doctors,

B6 was presented to **B6** for a hacking cough that started last night, diarrhea for three days and reduced appetite. Physical examination suggested he had kennel cough. He was sent home with **B6** Radiology report, CBC and a Chem profile.

Thank you for the referral and your continued support of **B6**. Please contact me if you need any more information regarding **B6**.

B6 DVM

B6

CBC - Accession

B6

Printed: August 02, 2018

B6

Patient Name: B6
Species: Canine
Breed: Boxer
Gender: Neutered Male
Color: brindle

Tests Included:
CBC (Complete Blood Count)

CBC (Complete Blood Count)

Date/Time: B6 8:16 am

Patient: B6

Physician: B6

Req 72483

| Testi | UoM | Flags | Reference Range |
|---|-----------|-------|-----------------|
| WBC | K/uL | | 6.00 - 14.30 |
| RBC | M/uL | - | 5.80 - 8.90 |
| HGB | g/dL | - | 14.30 - 21.10 |
| HCT | % | - | 41.70 - 58.10 |
| MCV | fL | | 63.20 - 76.80 |
| MCH | pg | - | 22.90 - 26.60 |
| MCHC | g/dL | | 32.40 - 38.40 |
| CH | pg | | 22.20 - 26.00 |
| CHCM | g/dl | | 31.60 - 38.90 |
| RDW | % | | 10.80 - 14.90 |
| Platieleleti Counti | K/uL | | 161.00 - 513.00 |
| Large plateletis seen. | | | |
| PCT | % | | 0.13 - 0.40 |
| MPV | fL | | 7.50 - 15.70 |
| PDW | % | | 51.00 - 73.00 |
| NEU # | K/uL | | 3.30 - 10.10 |
| LYM # | K/uL | | 1.00 - 3.90 |
| MON # | K/uL | | 0.10 - 0.90 |
| EOS # | K/uL | | 0.00 - 1.20 |
| BASO # | K/uL | | 0.00 - 0.10 |
| RBC MORPHOLOGY: | | | |
| ANISOCYTOSIS | | | |
| RETIC Percenti | % | | |
| RETIC ABSOLUTE Counti | 0\ S\ 9/L | | |
| RETIC CORRECTED C | % | | |
| Canine Regeneration: Corrected retic >1.0% and Absolute counti >80 x 10\ S\ 9/L | | | |

B6

SOAP - ECC

B6

B6

Phone: Home - B6

Patient: B6
Species: Canine
Breed: Boxer
Color: brindle
Doctor: Simon,
Brooke

DOB: B6
Age: B6 Old
Sex: M
Tag:
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kgs.)

Weight: 12.9 lbs.

Prior Medical History

Diarrhea since Tuesday. No diet . No vomiting until last night. He is known for dietary indiscretion and chews things he should not. . He has a heart murmur.

Presenting Complaint

Presenting Complaint: Seen early this morning, concern for continued diarrhea, lethargy and anorexia in the car ride home.

When the owner tried to bring him home, he had absolutely no interest in food, then had a little bit of slightly formed stool in the house, ran outside and had profuse amounts of watery/liquid diarrhea. At the end of the episode was straining as well.

Historically has been a picky eater since they adopted him. A few days ago he began to get progressively more picky- would only finish a bit of his food and leave the rest. However yesterday he had a full appetite and ate everything offered to him.

He started developing a hacking cough around midnight last night - it progressed and became more frequent and the owner got up with him at 3AM today. He had progressed to coughing every few minutes and producing white foamy spittle. No vomiting at all that the owner had noted.

He is a dog that will eat things - he ate a carrot off of a snowman the other day as well

as chewed on the twigs that made the arms, He had one vomitus after this (a few days ago) which contained pieces of the carrot and stick but has eaten well since then and had no further upper GI symptoms.

Current Medical History

Is this patient presenting for trauma?: No

PU/PD: No

Indoor/Outdoor:

B6

Assessment

Problem List

Patient Problem List:

B6

Diagnosis

Plan

Diagnostics:

3 view thorax/partial body: Bilateral ventral pulmonary consolidation, consistent with bronchopneumonia. Diffuse bronchial pattern is supportive of the clinically suspected tracheobronchitis.

B6

Spoke with owner - due to **B6** current state, his lethargy and continued symptoms I recommended hospitalization with supportive care **B6**

B6 Discussed possible pneumonia, need for isolation with kennel cough-like symptoms, and oxygen due to mild dyspnea. It is possible that he will not need to be in oxygen shortly, however it is difficult for me to tell at this time. Warned owner that he could get worse before he gets better. A large component of when he can go home will be when he starts to show signs that he eating/drinking/better hydrated. Owner OK with plan.

Plan:

B6

After admit called owner to discuss treatments - luckily **B6** is eating for us, so we will start him on an **B6**. His radiographs were read out as bronchopneumonia, and we are suspicious that this could be secondary to an infectious cause namely kennel cough. Owner expressed concern with enamel dysplasia/degeneration and the use of **B6**. I said that typically we are concerned in 9 weeks or younger, and at over 12 weeks we would not expect to see these symptoms in **B6**. We may add another antibiotic for the suspected pneumonia if he does not show improvement by tomorrow. Owner OK with plan.

B6 DVM

B6

Client Name: **B6**
 Animal Name: **B6**
 Client Phone: **B6**
 MRN: **B6**
 Species: Canine
 Breed: Boxer
 DOB: **B6** Sex: M

Doctor: **B6**
 Clinic: **B6**
 Phone: **B6**
 Fax: **B6**

Accession: **B6**
 Collected: **B6**
 Received: **B6**
 Approval Date: **B6** 10:49 AM

CBC (Complete Blood Count)

| | Ref. Range/Males | |
|-----------------|------------------|-----------|
| WBC | 6.0-14.3 K/uL | B6 |
| RBC | 5.8-8.9 M/uL | |
| HGB | 14.3-21.1 g/dL | |
| HCT | 41.7-58.1 % | |
| MCV | 63.2-76.8 fL | |
| MCH | 22.9-26.6 pg | |
| MCHC | 32.4-38.4 g/dL | |
| CH | 22.2-26.0 pg | |
| CHCM | 31.6-38.9 g/dl | |
| RDW | 10.8-14.9 % | |
| Platelet Count | 161-513 K/uL | |
| B6 | 10:48 AM Large p | |
| PCT | 0.129-0.403 % | |
| MPV | 7.5-15.7 FL | |
| PDW | 51.0-73.0 % | |
| NEU # | 3.3-10.1 K/uL | |
| LYM # | 1.0-3.9 K/uL | |
| MON # | 0.1-0.9 K/uL | |
| EOS # | 0.0-1.2 K/uL | |
| BASO # | 0.0-0.1 K/uL | |
| RBC MORPHOLOGY: | | |
| ANISOCYTOSIS | | |

Reticulocytes

| | | |
|----------------------|----------------------|-----------|
| RETIC Percent | % | B6 |
| RETIC ABSOLUTE Count | x 10 ⁹ /L | |
| RETIC CORRECTED C | % | |

B6 9:56 AM Canine Regeneration: Corrected retic >1.0% and Absolute count >80 x 10⁹/L

B6
 END OF REPORT (Final)

B6

W NOVA Basic Panel - B6

Printed: August 02, 2018

B6

Patient Name: B6
Species: Canine
Breed: Boxer
Gender: Neutered Male
Color: brindle

Tests Included:
W Nova Basic Panel

W Nova Basic Panel

Date/Time: B6 11:09 am

Patient: B6 Physician: B6 Req: 72522

| Test | UoM | Flags | Reference Range |
|-------------|---------|-------|-----------------|
| N NA | mmol/L | | 142.00 - 150.00 |
| N K | mmol/L | + | 3.62 - 4.60 |
| N CL | mmol/L | - | 112.70 - 118.30 |
| N iCA | mmol/L | + | 1.15 - 1.34 |
| N GLU | mg/dl | + | 75.00 - 116.00 |
| N LACT | mmol/L | | 0.70 - 2.80 |
| N BUN | mg/dl | | 8.00 - 30.00 |
| N TCO2 | mmol/L | | |
| N CREAT | mg/dl | | 0.60 - 1.60 |
| N BUN/CREAT | calc | | |
| N OSMO | mOsm/kg | | |

B6

B6

Lab Results

Printed: August 02, 2018

B6

Patient Name: B6
Species: Canine
Breed: Boxer
Gender: Neutered Male
Color: brindle

Tests Included:
POC HCT/TS

POC HCT/TS

Date/Time: **B6** 2:27 pm

Patient:

B6

Physician

Signature System

Req

Test:

HCT

TS

UoM

Flags

Reference Range

B6

%

g/dl

B6

B6

Pet: **B6**

DOB: **B6**

Breed: Boxer

Sex: M

Color: brindle

Visit Date: **B6**

Dear Colleagues,

B6 is currently being hospitalized for bronchopneumonia suspected to be secondary to bordetella infection. He was hospitalized in oxygen (mildly dyspnea noted when awake) and started on a high rate of **B6**. **B6** We will keep you update on his progress.

I've attached my SOAP for your records.

B6 DVM

Weight: 12.9 lbs.

Presenting Complaint

Presenting Complaint: Seen early this morning, concern for continued diarrhea, lethargy and anorexia in the car ride home.

When the owner tried to bring him home, he had absolutely no interest in food, then had a little bit of slightly formed stool in the house, ran outside and had profuse amounts of watery/liquid diarrhea. At the end of the episode was straining as well.

Historically has been a picky eater since they adopted him. A few days ago he began to get progressively more picky-would only finish a bit of his food and leave the rest. However yesterday he had a full appetite and ate everything offered to him.

He started developing a hacking cough around midnight last night - it progressed and became more frequent and the owner got up with him at 3AM today. He had progressed to coughing every few minutes and producing white foamy spittle. No vomiting at all that the owner had noted.

He is a dog that will eat things - he ate a carrot off of a snowman the other day as well as chewed on the twigs that made the arms, He had one vomitus after this (a few days ago) which contained pieces of the carrot and stick but has eaten well since then and had no further upper GI symptoms

B6

Assessment

Problem List

Patient Problem List:

B6

Diagnosis

Patient Diagnosis:

B6

Plan

B6

B6

Spoke with owner - due to **B6** current state, his lethargy and continued symptoms I recommended hospitalization with supportive care (**B6**) Discussed possible pneumonia, need for isolation with kennel cough-like symptoms, and oxygen due to mild dyspnea. It is possible that he will not need to be in oxygen shortly, however it is difficult for me to tell at this time. Warned owner that he could get worse before he gets better. A large component of when he can go home will be when he starts to show signs that he eating/drinking/better hydrated. Owner OK with plan.

Plan:

B6

After admit called owner to discuss treatments - luckily **B6** is eating for us, so we will start him on an oral doxycycline. His radiographs were read out as bronchopneumonia, and we are suspicious that this could be secondary to an infectious cause namely kennel cough. Owner expressed concern with enamel dysplasia/degeneration and the use of doxycycline - I said that typically we are concerned in 9 weeks or younger, and at over 12 weeks we would not expect to see these symptoms in **B6**. We may add another antibiotic for the suspected pneumonia if he does not show improvement by tomorrow. Owner OK with plan.

B6

DVM

B6

B6 ad

Pet: **B6**
DOB: **B6**
Breed: Boxer
Sex: M
Color: brindle

Admission Date: <CheckedIn

Discharge Date: **B6**

Attending Doctor: **B6**, DVM

Presenting Problem(s): Cough, difficulty breathing, diarrhea

Diagnosis/Rule-outs: Bronchopneumonia - suspected "kennel cough"; diarrhea of unknown etiology (dietary indiscretion vs. parasitism vs. other)

Discharge Instructions:

B6 was presented to the **B6** service the morning of **B6** for continued diarrhea and coughing at home. He was admitted to our hospital for supportive care and monitoring. Mogul has done very well with us and is now ready for discharge!

Instructions:

- Please monitor **B6** at home for difficulty breathing, worsening coughing, exercise intolerance, development of more mucoid nasal discharge, or lethargy for the next 1-2 weeks; call us or your primary veterinarian if you are concerned about/notice these clinical signs
- A normal canine respiratory rate at rest (sleeping/lying down) is under 40 breaths per minute. If his respiratory rate is higher than this consistently, it may indicate that he is having trouble breathing on his own. Call a veterinarian if you notice this.
- To help **B6** recover faster from pneumonia, we recommend using nebulization. Basically, the easiest way to do this at home is by using shower steam. You can have **B6** go into the bathroom with a steamy shower running (don't put him in the shower! just the bathroom is fine). He can sit in the hot steam for 5 minutes 2 to 3 times daily. Please sit in the room with **B6** during this process to make sure that he is tolerating it well.
- **B6** should eat a bland diet for the next 5-7 days to help with both the possible gastrointestinal upset from doxycycline and the inflammation of his intestine from his diarrhea. He has been eating a combination of Hills i/d and w/d for us in the hospital - we will send you home with a few cans of this, and he can also have some of the dry i/d that you already have at home.

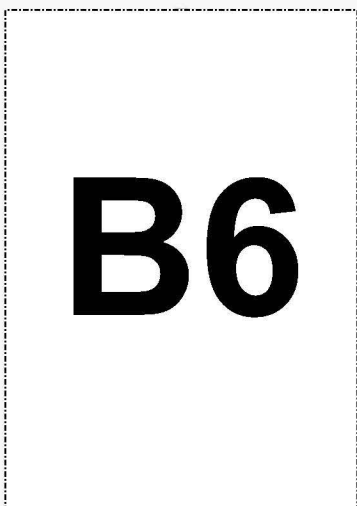
Medication:

B6

Thank you for bringing **B6** to **B6**. He is a total sweetheart and we are so happy that he is feeling better! Please do not hesitate to contact us with any questions or concerns.

Sincerely,

B6 DVM
DVM



CLINICAL SUMMARY
 Animal No. 16729
 Attending Vet(s) **B6**
 Printed At 09-19-2018
 Printed By **B6**

Client Details

Name **B6**
 Address **B6**
 Phone **B6**

Patient Details

Name **B6**
 Species Canine (Dog)
 Breed Golden Retriever
 Age **B6**
 Sex Female Spayed

Thursday the 30th of August 2018

09:24 AM

Client Communication

B6 DVM
 8/30/18 SH: O called and said that she is concerned about **B6** as she has been on grain free diets her whole life. Explained to O about the marketing hype of grain free diets. O says she has been reading some articles recently about grain free and was wondering if she could chat with you about them. O has P scheduled for an echo at Tufts as she is very concerned about P's heart after being on the diet for so long. I have forwarded you the articles as O sent the links via e-mail.
 8/30/18 bmd 12:50p: LMOM both numbers call back to discuss. I'm in until 8p tonight
 8/30/18 bmd 2p: spoke with o. she's already changed off of the honest kitchen grain free food to non grain free. O has echo set up at Tufts for sept 19th. If she were still on it then we could have run a taurine level. Let o know to watch out for exercise intolerance/breathing heavy or panting when you think its not hot/she should be calm. She does lay down on walks but o said it seems more behavioral. no dyspnea.

Monday the 25th of June 2018

08:13 PM

Diagnostic Result

Requested By:
Supplier:
Reference: 1452
Outcome:
 Unallocated result from **B6** - the below details might help you find out which patient it belongs to:
 Modality: Digital Radiography
 Accession Number: **B6**
 Study Date: 11-22-2016 5:58:23pm
 Patient Id: 16729
 Patient Name: **B6**
 Study Description: 11/22/16 05:58 PM

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

Referring Physicians Name:
Clinic Notes / Specifics:

B6

Monday the 21st of May 2018

11:21AM

Vaccination

B6

Thursday the 15th of February 2018

09:58AM

History

B6 DVM

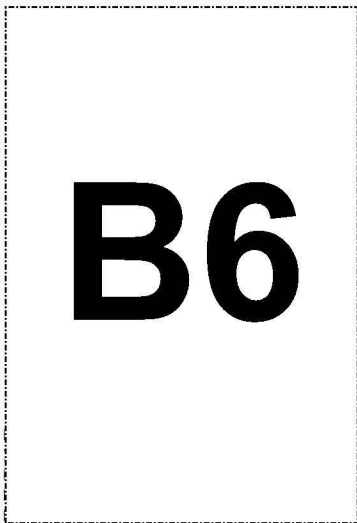
B6

12:00AM

Presenting Problem(s)

B6 DVM

Tuesday the 13th of February 2018



CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

02:06 PM

History
B6 DVM
B6

02:02 PM

History
B6 DVM
B6 Canine

History
B6 DVM
B6

History
B6 DVM
B6

History
B6 DVM

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

B6

02:01 PM

History

B6 DVM

B6

Physical Exam

B6 DVM

B6

Assessments

B6 DVM

B6

Plan

B6 DVM

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09/19/2018
Printed By **B6**

B6

Health Status

Weight(kg): 57.00
H.R.: 100
B.C.S: 6.0/9.0
Comments: CRT: <2

History

B6 DVM

B6

01:37 PM

History

B6

B6

12:00 AM

Master Problems

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

Master Problems

B6

Master Problems

B6

Master Problems

B6

Presenting Problem(s)

B6

Master Problems

B6

Master Problems

B6

Master Problems

B6

Tuesday the 23rd of January 2018

12:00AM

Presenting Problem(s)

B6

Friday the 22nd of December 2017

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

12:48 PM

History

B6 DVM

B6

12:10 PM

History

B6 DVM

B6

12:00 AM

Presenting Problem(s)

B6 DVM

Monday the 11th of December 2017

04:11 PM

Diagnostic Result

Requested By **B6** DVM

Supplier:

Reference:

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

Outcome: **B6**
Clinic Notes / Specimens:

History

B6 DVM

B6

History

B6 DVM

B6

Diagnostic Result

Requested By: **B6** DVM

Supplier:

Reference:

Outcome: **B6**
Clinic Notes / Specimens:

01:52 PM

History

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

Notes
B6

01:42 PM

Vaccination
B6

Vaccination
B6

Diagnostic Result
Requested By: **B6** DVM
Supplier:
Reference:
Outcome: **B6**
Clinic Notes / Specifics:

Vaccination
B6

Diagnostic Result
Requested By: **B6** DVM
Supplier:
Reference:
Outcome: **B6**

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

Clinic Notes / Specifics:

History

B6 DVM

B6 Canine

History

B6 DVM

B6

01:37 PM

History

B6 DVM

B6

01:35 PM

Diagnostic Result

Requested By **B6** DVM

Supplier:

Reference:

Outcome:

B6

Clinic Notes / Specifics:

B6

Animal No. 16729
Attending Vet(s) B6
Printed At 09-19-2018
Printed By B6

Diagnostic Result

Requested By B6 DVM

Supplier:

Reference:

Outcome:

B6

Clinic notes / specimens:

01:24 PM

History

B6 DVM

B6

01:21 PM

Health Status

Weight(kg): 55.70

History

B6 DVM

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

- History**
B6 DVM
B6
- History**
B6 DVM
B6
- History**
B6 DVM
B6
- History**
B6 DVM
Requisition **B6**
- Diagnostic Result**
Requested By **B6** DVM
Supplier:
Reference:
Outcome:

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

B6
Clinic Notes / Specifics:

History

B6 DVM

B6

Plan

B6 DVM

B6

Physical Exam

B6 DVM

B6

Diagnostic Result

Requested By: **B6** DVM

Supplier:

Reference:

Outcome:

B6

Clinic Notes / Specifics:

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

Assessments

B6 DVM
B6

01:03 PM

History

B6

B6

12:00 AM

Presenting Problem(s)

B6

Diagnostic Result

Requested By: **B6** DVM
Supplier:
Reference:
Outcome:

Clinic Notes / Specifics:

B6

B6

Lowest Value Highest Value Qualifier Notes

Diagnostic Result

Requested By: **B6** DVM

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

Supplier:
Reference:
Outcome:

Clinic Notes / Specifics:

B6

| Test | Results | Unit | Lowest Value | Highest Value | Qualifier | Notes |
|----------------------------------|-----------|------|--------------|---------------|-----------|-------|
| GIARDIA ELISA OVA & PARASITES | B6 | | | | | |

Diagnostic Result

Requested By **B6** DVM
Supplier:
Reference:
Outcome:

Clinic Notes / Specifics:

B6

| Test | Results | Unit | Lowest Value | Highest Value | Qualifier | Notes |
|-------------------------------|-----------|------|--------------|---------------|-----------|-------|
| AP_spp EC-EE HW Lyme | B6 | | | | | |

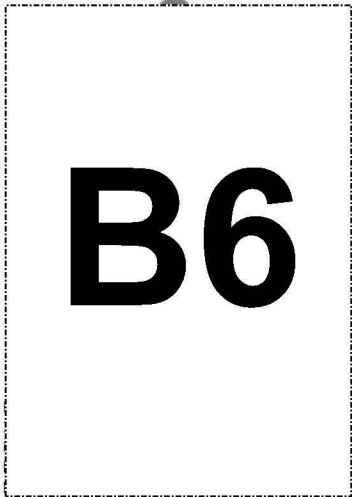
Friday the 18th of August 2017

12:16 PM

History

B6

B6



CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

B6

12:00AM

Presenting Problem(s)

B6

Monday the 17th of July 2017

07:54PM

History

B6

B6

Diagnostic Result

Requested By: **B6** DVM

Supplier:

Reference:

Outcome:

B6

Clinic Notes / Specifics:

History

B6 DVM

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

B6

07:53PM

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

07:10PM

B6

12:00AM

Wednesday

05:09PM

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

12:00AM

Tuesday the

03:14PM

02:32PM

12:00AM

Friday the

11:18AM

B6

B6

Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

B6

11:11AM

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

12:00AM

B6

Friday the

02:28 PM

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s): **B6**
Printed At 09-19-2018
Printed By **B6**

12:00AM

Thursday th

11:10AM

12:00AM

Wednesday

03:30PM

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

B6

12:00AM

Thursday the

11:08AM

11:07AM

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

12:00AM
Tuesday the
10:24AM
B6
12:00AM

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

Monday th

11:55AM

12:00AM

Friday the

03:41PM

12:00AM

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

Wednesday

01:35 PM

12:30 PM

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

11:34AM

08:32AM

08:18AM

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s): **B6**
Printed At 09-19-2018
Printed By **B6**

12:00AM

Tuesday the

06:49PM

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

B6

06:47PM

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

B6

06:46 PM

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

05:54 PM

B6

05:31 PM

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

05:22 PM

05:21 PM

12:00 AM

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

Monday the

03:08 PM

12:00 AM

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

Friday the

02:48 PM

12:00 AM

Tuesday th

11:13 AM

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

B6

10:57AM

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

B6

12:00AM

Friday the

12:00AM

Wednesday

10:34AM

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

12:00AM

Monday the

12:00AM

Friday the

08:48AM

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

12:00AM

Thursday the

10:57AM

12:00AM

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

Friday the

12:00AM

Tuesday th

01:54PM

01:47PM

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

01:46PM

01:35PM

12:00AM

Tuesday the

11:12AM

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

12:00AM

Thursday the

09:34AM

B6

12:00AM

Tuesday the

03:35PM

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

03:25 PM

03:23 PM

03:12 PM

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

B6

03:07PM

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

12:00AM

Tuesday the

12:00AM

Friday the 5

10:37AM

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

B6

10:33AM

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

09:29 AM

09:25 AM

12:00 AM

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s): **B6**
Printed At 09-19-2018
Printed By **B6**

Thursday th

11:28 AM

08:23 AM

12:00 AM

Wednesday

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CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

01:08PM

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CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

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CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

01:07 PM

12:59 PM

12:57 PM

B6

B6

CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

12:34 PM

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CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

B6

12:27PM

12:00AM

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CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-19-2018
Printed By **B6**

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Lowest Value Highest Value Qualifier Notes

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CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09-18-2018
Printed By **B6**

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CLINICAL SUMMARY
Animal No. 16729
Attending Vet(s) **B6**
Printed At 09/19/2018
Printed By **B6**

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