

Newport Labs
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KCBA
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Herd Health

- What is Herd Health ?
 - Means different things to different producers
 - Some producers are very good at Herd Health management
 - Some of you have no clue

Herd Health

- My Definition

–Using Management skills to loose as little money as possible !

Herd Health

- Herd Health components
 - Nutrition
 - Pen management
 - Stress Management
 - Bio Security
 - Disease identification
 - Disease Limitation

Today's Focus

- Disease identification
- Disease Limitation

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- What is Disease?
 - Part of the body is not working the way it is supposed to
 - Disease Causes
 - nutritional imbalance/deficiency
 - environmental factor
 - infectious pathogens
 - Bacteria
 - Virus
 - Prions
 - Parasites



Infection

- When a pathogen (Bacteria, Virus, Parasite) invades the body and affects tissue
 - When tissue is affected the body is not able to function normally
 - You see signs of the infection related to where the tissue is affected
 - Lung-Pneumonia
 - Intestines- diarrhea

Respiratory Disease

- One of the leading causes of economic loss in the cervid industry
- All ages are susceptible
- Occurs year round

Respiratory Disease

- Adults
 - Apparent Sudden death.....
 - Poor doer/ADR
 - Chronic infections
- Fawns/Calves
 - Sudden death (less than 2 months of age)
 - Apparent Sudden Death
 - Poor doer/ADR

Clinical Signs

- Cervids are incredible at hiding signs of respiratory disease
- Often no signs noticed/observed until disease is advanced
- “Some thing is just not right”
- Rough hair coat
- Weight loss/prominent back bone

Clinical Signs

- **Flared Nostrils**/ increase respiratory rate
 - Often only sign noticeable
- Coughing is absent
- Nasal discharge is absent
- Decreased feed intake ???
 - Most owners, unless very observant will not be able to determine if intake has changed

Physical Exam

- Hydration- Varies
 - Estimated 5% dehydrated or more common in fawns, adults more variation
- Elevated temperature seen if early in disease, absent in chronic cases
 - Most adult cases will be chronic
- Lung sounds
 - Crackles/ Wheezes- uncommon
 - Absence of air movement- most common

Clinical Case

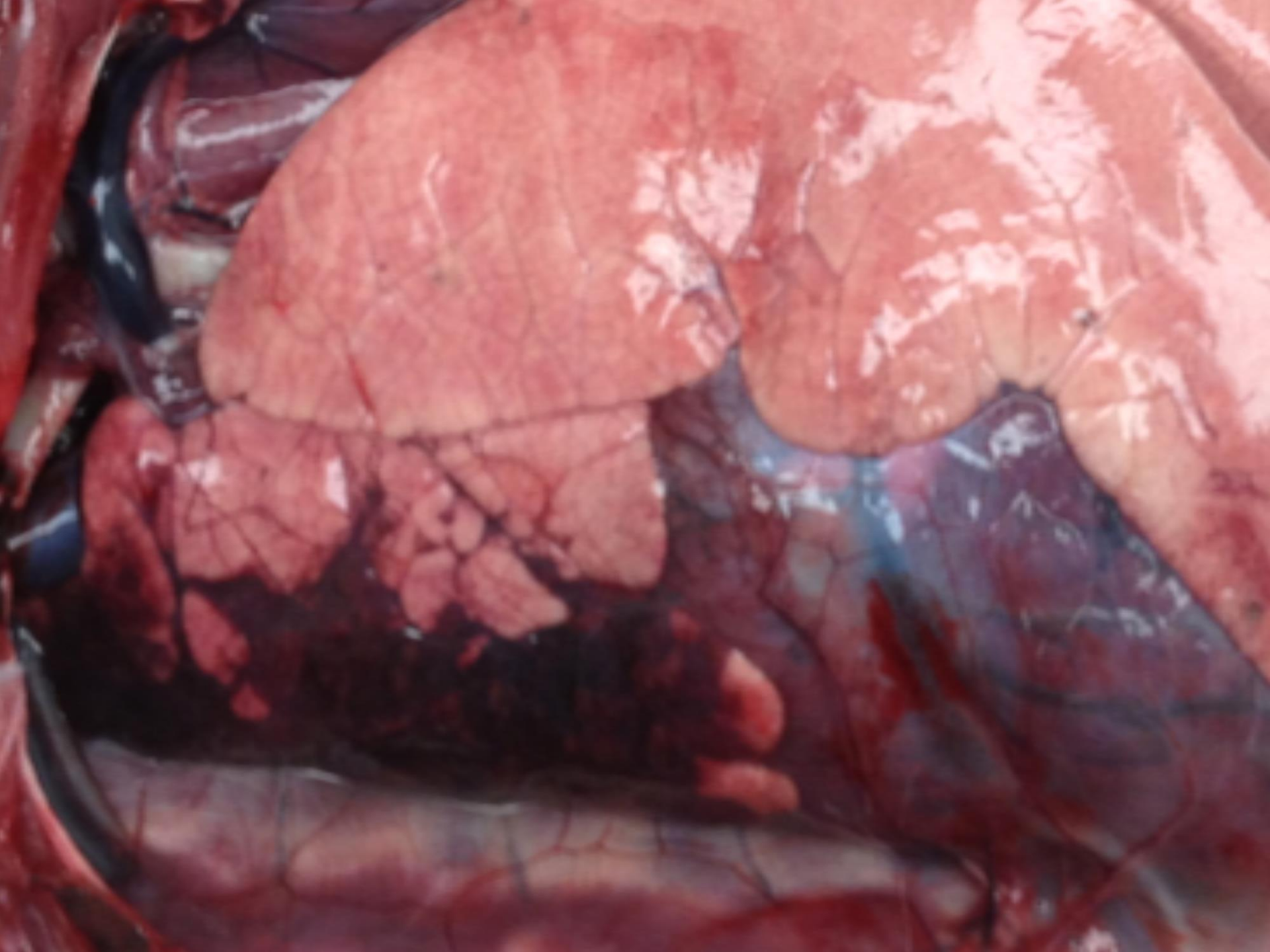
- 8 week old doe fawn being raised by doe
 - In a 1.5 acre pen with 9 other does and 16 other fawns
 - Owner checks pen visually twice a day
 - Owner said fawn was clinically normal yesterday
 - Found dead in morning
 - Owner counted fawns and found another doe fawn that was dead and was also considered clinically normal yesterday

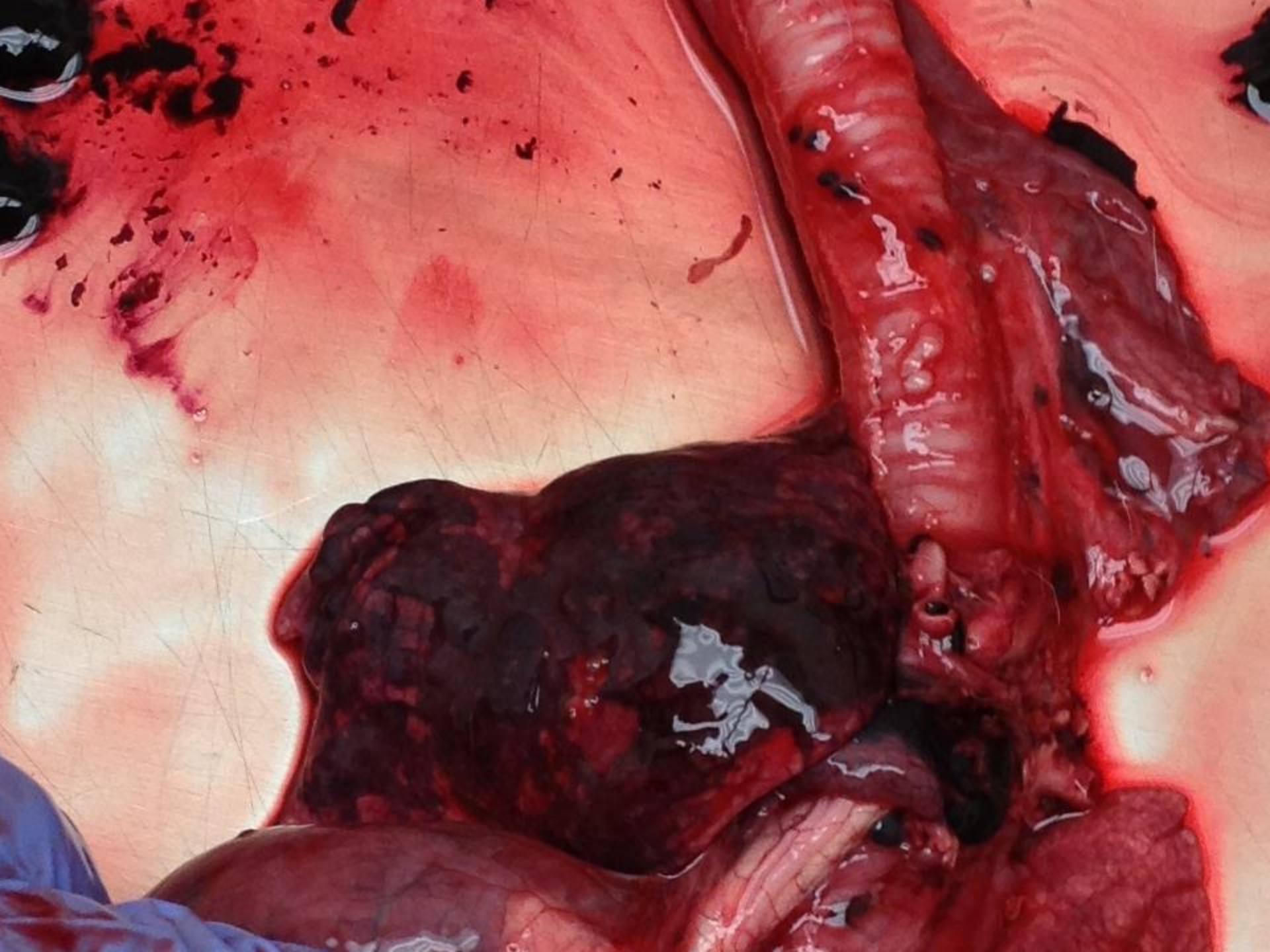
Clinical Case

- Owner called local vet for assistance
- Local vet suggest sending samples to NPL
- Owner placed fawns on ice and drove 2.5 hours to bring fawns to NPL
- Necropsy was performed on both fawns and tissues submitted for diagnostics









Clinical Case

- Cultures:
 - Trachea/ upper airway
 - Bibersteinia
 - Lungs
 - Trueperella
- Common for Bibersteinia cases
 - In adults clinical signs often confused with diphtheria/ Fawns sudden death with or without increased upper air way sounds

Contributing Factors

- Over Crowding
 - Recommend 7 to 10 animals per acre
 - Fawns count
- Stress
 - Handling
 - Transport
 - Poor Farm Management
- Poor Biosecurity- new additions with no quarantine

Pneumonia

- Most common respiratory isolates at NPL
 - Trueperella
 - Pasteurella
 - Fusobacterium
 - Bibersteinia
 - Mycoplasma

Mycoplasma



Pneumonia

- Treatment

EARLY DETECTION

Pneumonia

- How will you touch the animal
 - Fawn
 - Bottle fed
 - Pasture raised
 - Adult
 - Handling facility with dark room and a chute
 - Darting

Pneumonia

- If the animal is to be darted:
- If you want it to live

—Use BAM

Pneumonia

• STRESS

- Have a plan
- Know when to stop
- Don't be the immediate cause of death

Pneumonia

• Fluids

- Most often overlooked
- Fluids will keep the deer alive long enough for the AB to have a chance to work
- Dextrose is your friend
 - Fawns!!!!!!!!!!

Pneumonia

- Antibiotics
 - Long lasting/ broad spectrum
 - Zactran
 - Draxxin
 - Nuflor
 - Zuprevo
 - Goal is for animal to be covered for 14 to 21 days
 - Often requires repeated dosing
 - Administration will often dictate choice of AB

Pneumonia

- NSAIDS
 - Flunixin
 - 1 to 2 cc per 100/lbs
- Steroids ????
 - Dexamethasone
 - Used at initial treatment
- H2 blocker/ proton pump inhibitor
 - Must in every case
 - Lansoprazole or Omeprazole

Pneumonia

- Nutrition

- If the animal is to be treated and turned back out
 - Pray it eats
- Recommend keeping animal in sick pen/handling facility if possible
 - Monitor feed intake
 - If tame enough tube feed slurry
 - Be creative
 - Chaff hay
 - Oatmeal, Peanut Butter, Applesauce, Beat Pulp

Pneumonia

- Do diagnostic testing!!!!
- If the animal is anesthetized:
 - Deep nasal pharyngeal swab
 - Trans-tracheal wash
- If it dies
 - No excuse not to do diagnostics!
 - Make it happen, tell your vet right away if it dies
 - Make it a priority
 - Take the dead deer to the vet, or get your vet to teach you how to do a good necropsy, take pictures with your phone!

Pneumonia

- One shot of AB is not an adequate treatment for this disease
- Be an advocate for you client
- Generally not isolated cases
 - Incidence is probably higher than your client realizes
- Do diagnostics

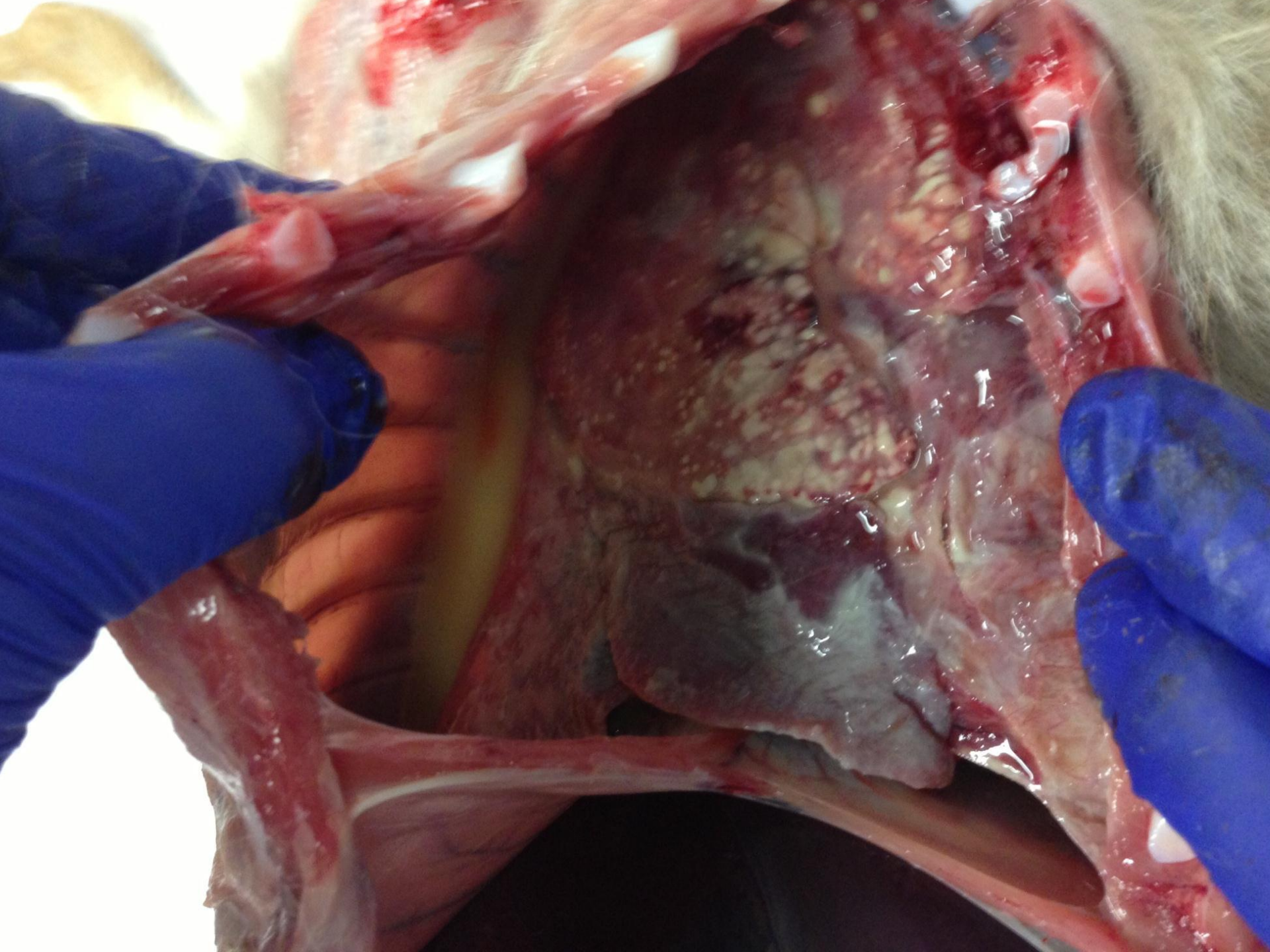
Clinical Case

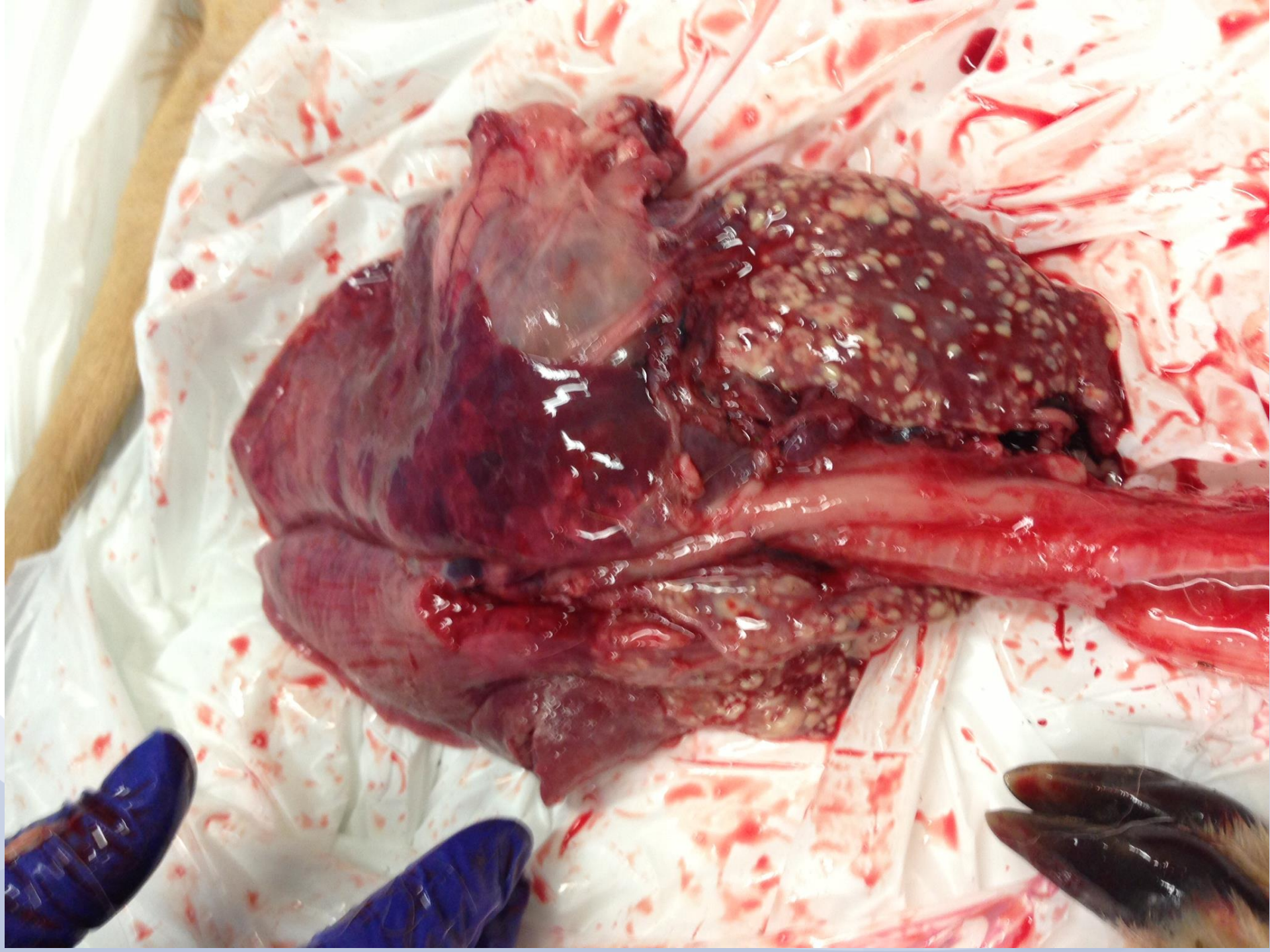
- Farm in FL
- Experiencing fawn loss
- 60/100 fawns died
- Fawns being treated with many different AB
- Fawn are identified as not right treated and then found dead soon after
- Local vet contacted me
- Did on farm assessment
- Pens were over crowded
- Hygiene issues with waters and feed tubs
- No vaccines given
- Fawn died morning of my arrival



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Clinical Case

- Sent tissue and cultures to NPL
- Results were
 - Pneumonia caused Fusobacterium and Trueperella
 - Initiated a vaccination program
 - Worked with herdsman to identify sick fawns earlier
 - Chose AB that bacteria were found to be sensitive to

Disease Identification

- How do you identify the pathogen causing the disease ???
- Diagnostic testing!!!!!!!
- **assuming you know the pathogen = poor management = financial loss**
- Have a plan
 - What samples to collect if you have a sick animal
 - Request a diagnostic Shipper

Limiting Disease

- Good Management = Limiting Disease
- Vaccination is part of Management
- Vaccination is not a replacement for Management

Vaccination

- When a vaccine is given it exposes the body to a killed form of the pathogen
- The body makes Antibodies against the pathogen
- Antibodies prevent/limit severity of disease when exposed to live pathogen in the pen

Vaccination

- Do any of the commercial vaccines contain the major players in the cervid world ?
 - Do not assume that because you gave a vaccine you have covered your Cervids against the major diseases
 - Know what you are vaccinating with and why you are giving it!

Are you vaccinating with the right thing?

- The Major players
 - Fusobacterium (Lumpy Jaw/Pneumonia)
(Necrobacillosis)
 - Clostridium type A
(diarrhea/death)
 - E. Coli(diarrhea)
 - Trueperella (Pneumonia)
 - Pasteurella Multocida
(Pneumonia)
 - Biberstenia
 - Mycoplasma
 - **EHD/Bluetongue**
- Covexin 8/Alpha 7
- Clostridium
 - Chauvoei
 - Septicum
 - Novyi
 - Sordellii
 - Tetani
 - Perfringens
 - Types C & D.

Infection

- The Major players-in Elk
 - Clostridium type D
 - Clostridium type A (diarrhea/death)
 - E. Coli(diarrhea)
 - Trueperella (Pneumonia)
 - Pasteurella Multocida (Pneumonia)
 - Mycoplasma
 - EHD/Bluetongue

Infection

- The Major players are the diseases we know are in our cervid herds
- Some herds have more or less problems with specific players
- All herds are at risk from any of them

Immunity

- No vaccine is **100%** protective
- The goal is to lessen or limit the effect of the wild agent
- For the vaccine to be effective
 - The immune system must not be depressed
 - **Stress**
 - **Poor body condition/nutrition**
 - **Previous/concurrent disease**

Vaccination

- **Two** doses are a must
- Should be given **3 weeks** apart
- All of your animals should be vaccinated
- Cows/does should be vaccinated with a booster 6 to 8 weeks before calving - pass antibodies to calves/fawns in the colostrum
- Calves/fawns should be given initial dose at **weaning** followed by a booster

Vaccination

- Do you have to vaccinate ?
 - We can't protect our animals from everything under the sun
 - What we can do is try to prevent the major players from causing us financial loss
 - It is your choice, you should make the decision based on your farms history and needs

Vaccination

- What vaccines do you use to control disease on your farm
- There are no **commercial** vaccines that have isolates collected from cervids
- We have used these products in the past with varying success

Vaccination

- **Custom Made** vaccines

- Advantages

- Isolate's collected from cervids
- Isolate's can be collected from your farm/region
- Isolate's can be combined to fit your specific needs
- Dose can be darted

Vaccination

- Will vaccinating solve all of your disease problems? **NO!**
- **Management** is the key factor
- Vaccines are a part of the equation not the final answer
- Solving disease issues on your farm is a synergistic relationship between you and your veterinarian

Vaccination

- What does Newport labs have available
 - Two choices
 - Collect isolates and allow us to make a product for your farm/region
 - Choose the product made for this season
 - Combo Vaccine
 - Straight Viral
 - Bacterin

Vaccination

- What is in the Combo
 - EHD 1, 2 & 6/ Bluetongue 3
 - Fusobacterium
 - Clostridium type A
 - P. Multocida
 - Trueperella Pyogenes
 - Bibersteinia

Vaccination

- Straight Viral
 - EHD 1,2 & 6, Blue Tongue 3
- Bacterin
 - Fusobacterium
 - Clostridium type A
 - P. Multocida
 - Bibersteinia
 - Truperella Pyogenes
 - E. Coli

Vaccination

- How do you get the products ?
 - Contact your **veterinarian**
 - You and your vet can determine which product is best for your situation
 - Your vet can get the product shipped to them or directly to you

Vaccination

- Every farm has different challenges
- Every situation is unique
- We at Newport want to help you solve a problem
- My job is **not** to sell vaccines, my job is to help you the producer and your veterinarian solve problems



Parasites

- Every one has problems with parasites
 - Major parasite we deal with is Ostertagia
- Parasites affect all ages
- Parasites take money out of your pocket



Parasites

- Many different de-worming programs
- Many different products
 - All have certain advantages and limitations
 - Ivomec
 - Ivomec +
 - Safeguard
 - Cydectin
 - Eprinex

Parasites

- Choose your de-worming program
 - What are your needs
 - What groups are most affected
 - What is your schedule
 - Have you done diagnostic fecals
 - Age groups
 - Different pastures/pens
 - Seasons

Parasitism

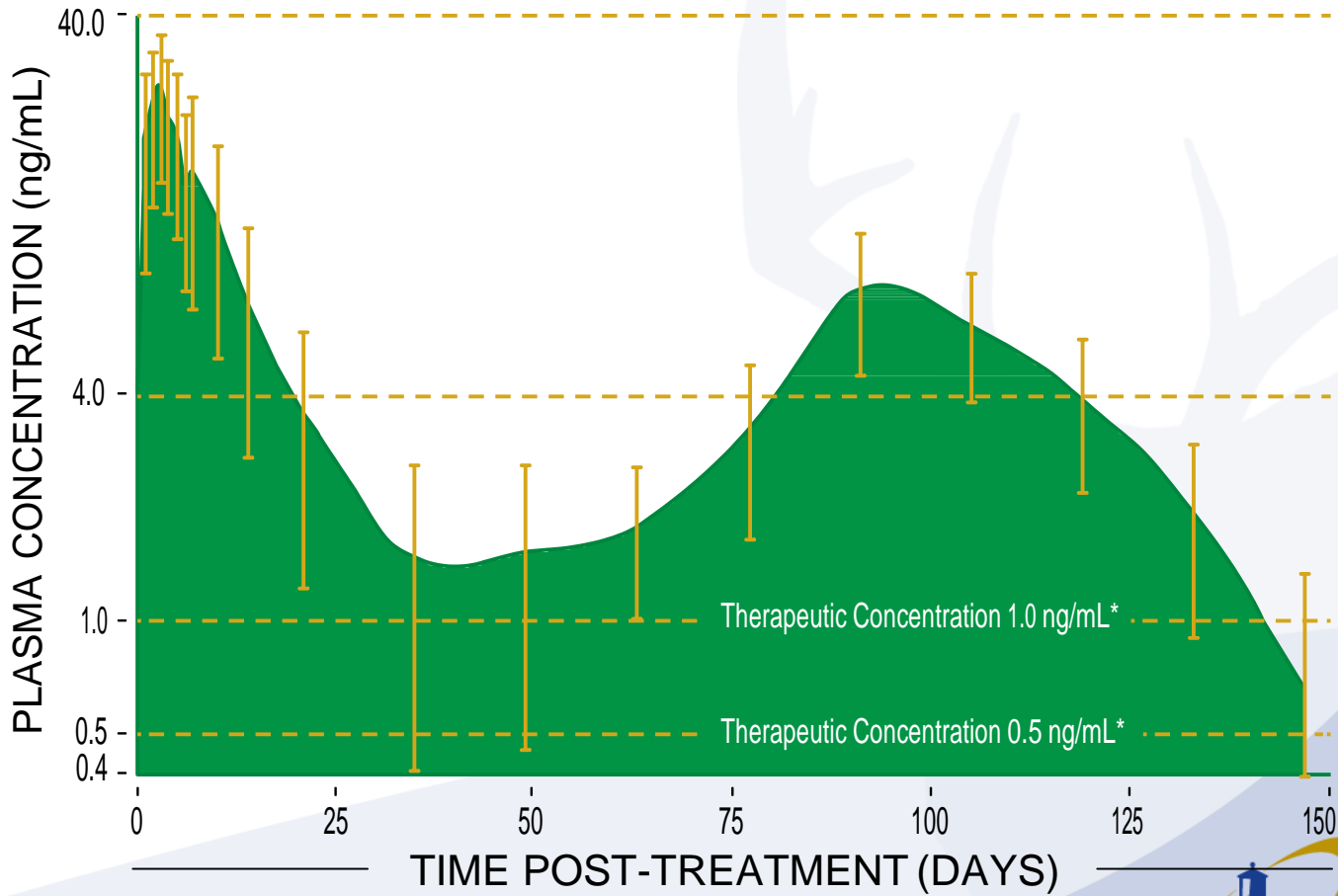
- New product on the market
 - Label claim is for cattle
 - **Off label use in Cervids**
- **Long Range**
 - **Eprinomectin**
 - Same drug that is in **Eprinex**
 - Broad Spectrum de-wormer
 - Is effective against **Ostertagia**
 - **Adults, L4 and inhibited L4**

Long Range

- Administered- Sub Cue
 - Sub cue in the neck is the preferred site
- My Recommended dose is
 - 1 cc per 110 pounds
 - **Do not double or triple DOSE !!!!!**
- **One Dose controls parasites for up to**

–150 days

Long Range



Newport Labs

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