

Top 10 Things Our Clients Need to Know About Goat Pneumonia

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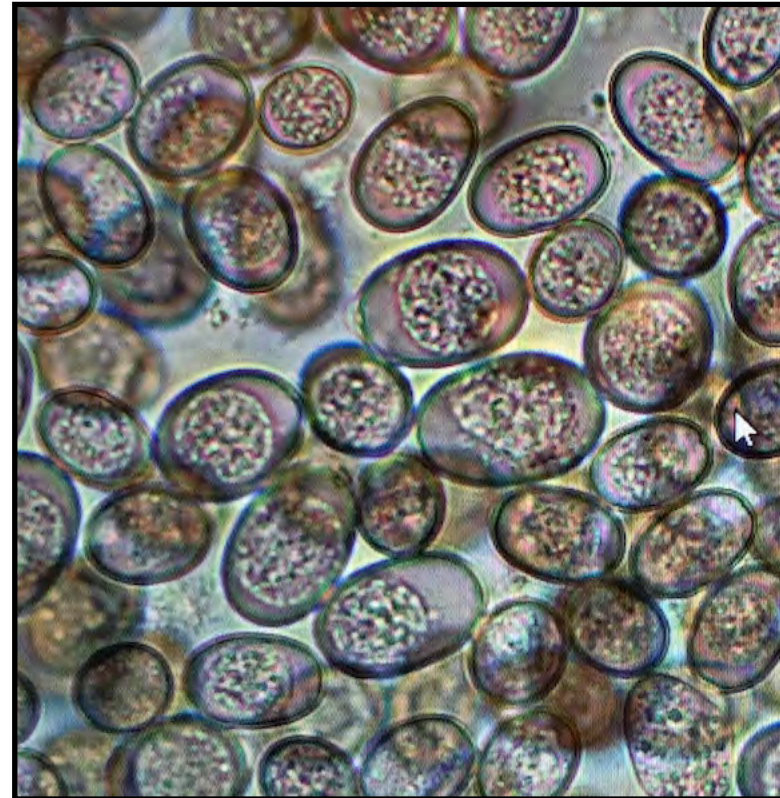
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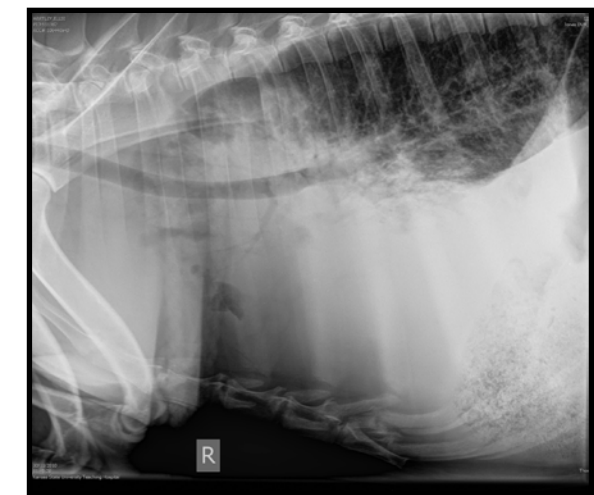
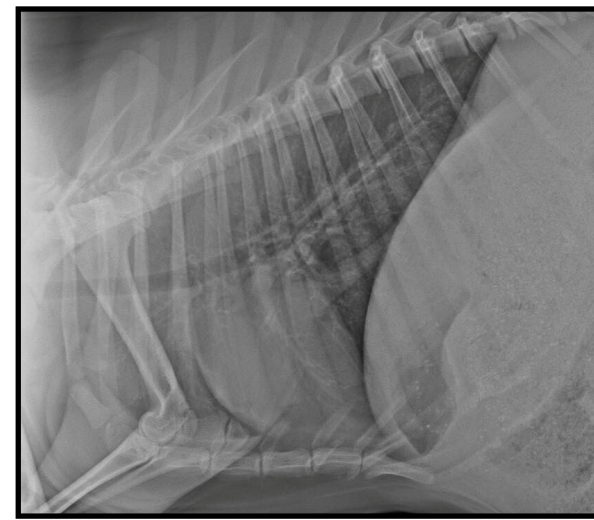
1. Environment matters

- Dust
- Weather
- Overcrowding
- Travel
- New introductions
- Stress
- Nutrition and immunity
- Parasites



2. It's all about timing

- Success is more about timing than the drug
- Bacteria can double in number every 15-30 minutes
- Lung damage happens quickly
- We are always late in identifying disease
- Prey species
- A couple days in, there may be nothing we can do





3. Get in the habit of taking temperatures on all sick animals

- Reference ranges for goats:
 - Temperature: 101.5-103.5°F
 - Respiratory rate: 15-40 breaths per minute



4. Please don't give a bunch of drugs and then call

- Ties our hands
- Can't be undone
- The drug we'd like to use may now be unavailable to be used



5. Antibiotic use is not straightforward

- Giving 2 drugs at the same time can negate their effects
- Antibiotics have effects everywhere in the body
- You have to give the drugs time to work
- Antibiotics in the feed are pretty worthless
 - Rumen degrades
 - Do sick animals eat well?

5. Antibiotic use is not straightforward

- It is illegal to use Baytril[®] in sheep and goats
- If you use a drug in a way that's not on the label, it has to be done under veterinary guidance and the label withdrawal will not be correct
- Overuse of drugs reduces their effectiveness over time
- OTC antibiotics are going away

Most common drug violations in goats

- Moxidectin (Cydectin[®])
- Ciprofloxacin (Cipro[®], metabolite of Baytril[®])
- Enrofloxacin (Baytril[®])
- Flunixin (Banamine[®] generics)
- Oxytetracycline (Liquamycin[®] LA-200 and generics)
- Penicillin

[Red Book 2018]



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Antibiotics

Drug	Sheep	Goats
Ceftiofur sodium	Labelled for respiratory disease	Labelled for respiratory disease
Ceftiofur HCl	Not approved	Not approved
Ceftiofur CFA	Not approved	Not approved
Penicillin procaine	MUMS approved	Not approved
Oxytetracycline	MUMS approved	Not approved
Florfenicol	Not approved	Not approved
Tulathromycin	Not approved	Not approved
Tilmicosin	Labelled for respiratory disease	Not approved - FATAL
Enrofloxacin	ILLEGAL	ILLEGAL

[<http://www.nrsp-7.org/mumsrx/Species/> , accessed June 22,2018]

This chart serves only as a convenient starting point. Always check labels and regulatory guidance for most up-to-date information.

6. Lungworms are extremely rare

- And when they do happen, it's only young animals
- Do not automatically give dewormers
 - Skinny animals
 - Coughing animals



7. There is little to no evidence to support using cattle vaccines

- Different strains than cattle get
 - Bacterial causes



[Brogden et al 1998]

- RSV
 - Bovine and caprine RSVs are closely related [Trudel et al 1989, Redondo et al 1994]

8. Breathing fast does not equal pneumonia

- 5 month old Angora wether
- T 104.6°F
- HR 136 bpm
- RR 76 bpm
- Rumen 0/2 minutes



- 6 month old Boer wether
- T 105°F
- HR 152 bpm
- RR 100 bpm
- Rumen 1/2 minutes

8. Breathing fast does not equal pneumonia

- 5 month old Angora wether
- T 104.6°F
- HR 136 bpm
- RR 76 bpm
- Rumen 0/2 minutes

- Tan/brown membranes
- Red urine



- 6 month old Boer wether
- T 105°F
- HR 152 bpm
- RR 100 bpm
- Rumen 1/2 minutes

- Rumen pH 6
- Reduced protozoa

9. Coughing is unreliable

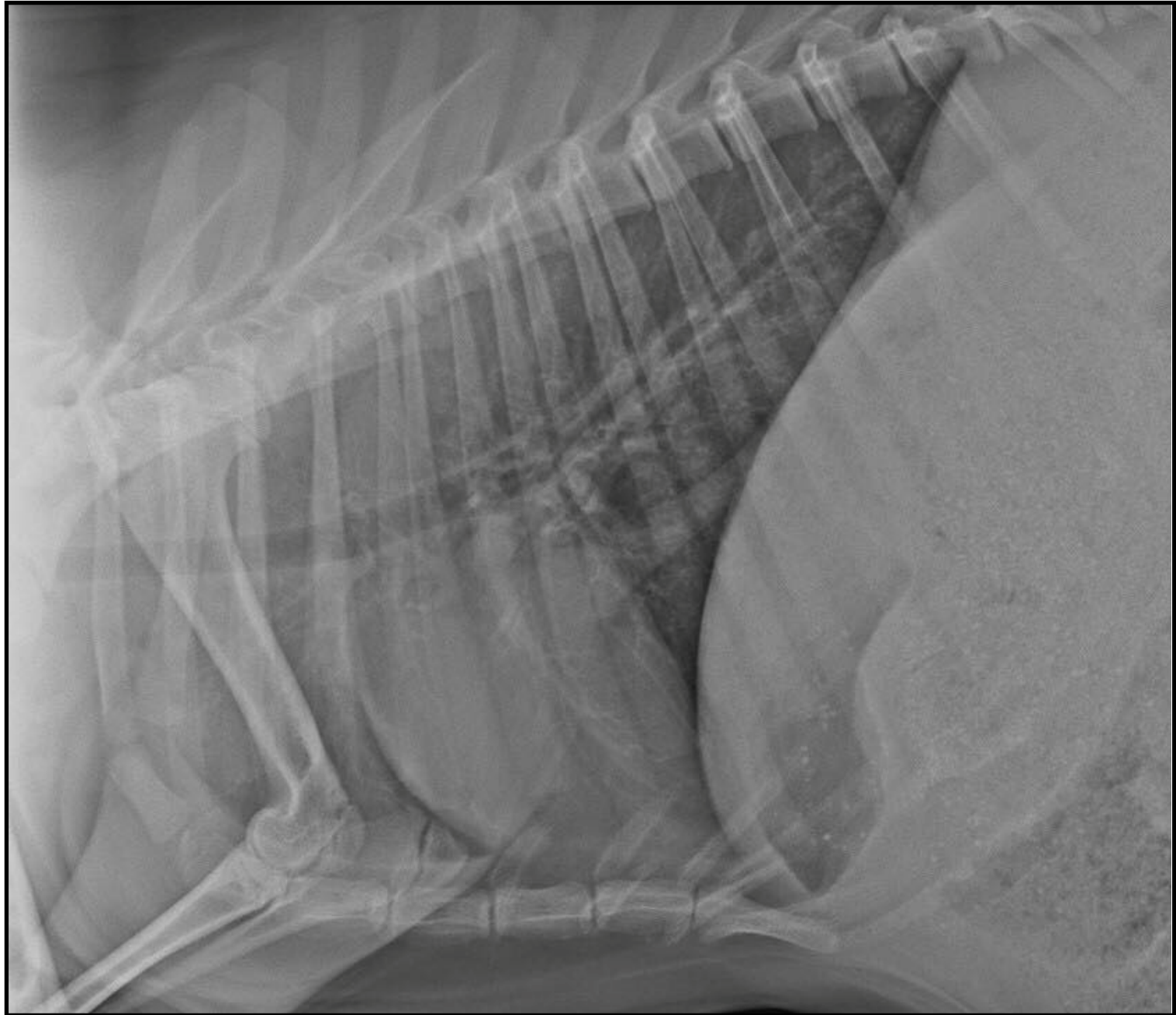
- Coughing does not mean pneumonia
- Not coughing does not mean not pneumonia
- Are they sick or are they just coughing?



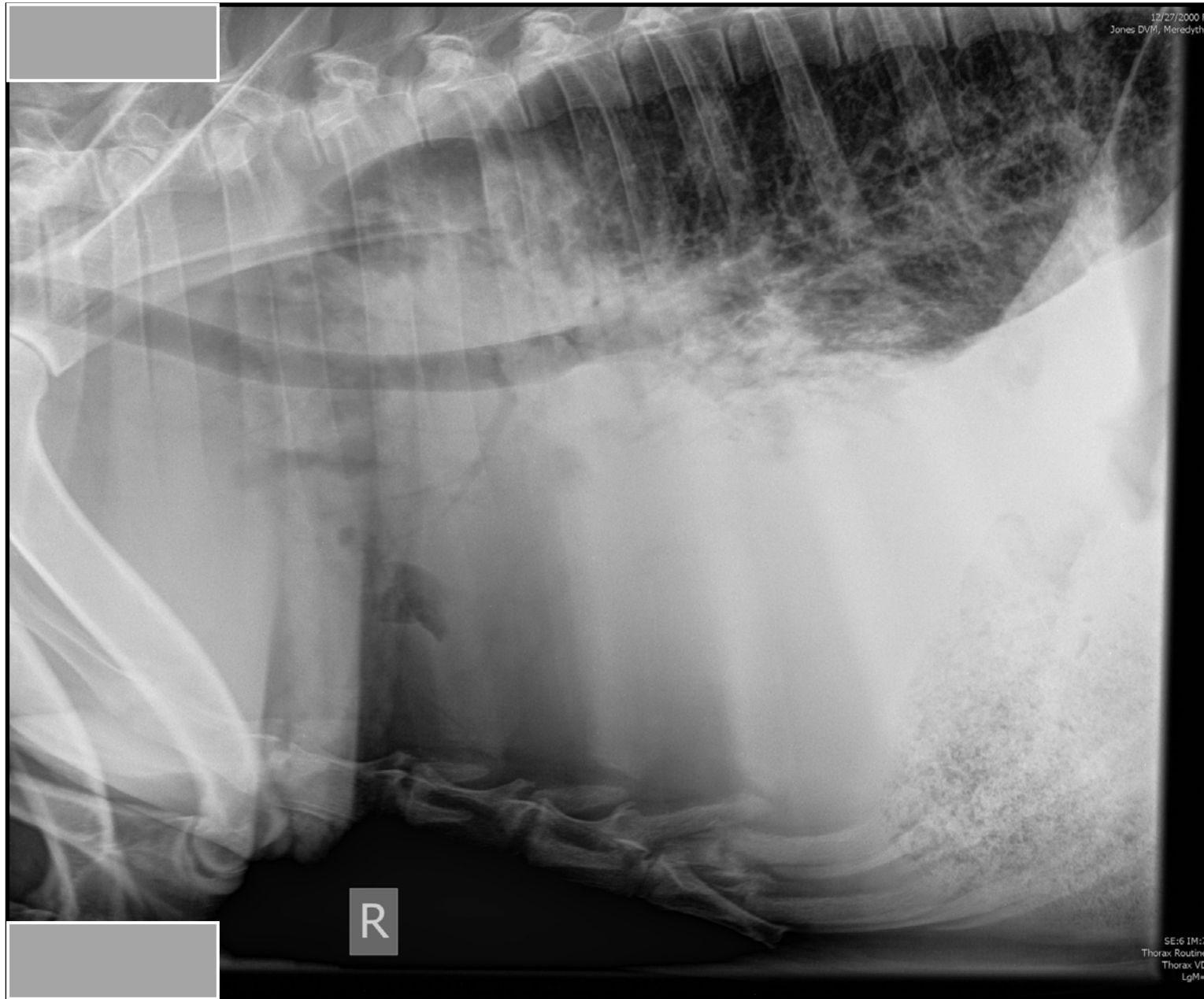
10. Please be careful with internet advice

- People mean well
 - Advice is incomplete and knee-jerk
- What works in one area cannot be applied across farms
- We see a lot of animals needlessly suffer and die
- Have a 'daylight relationship' with a veterinarian

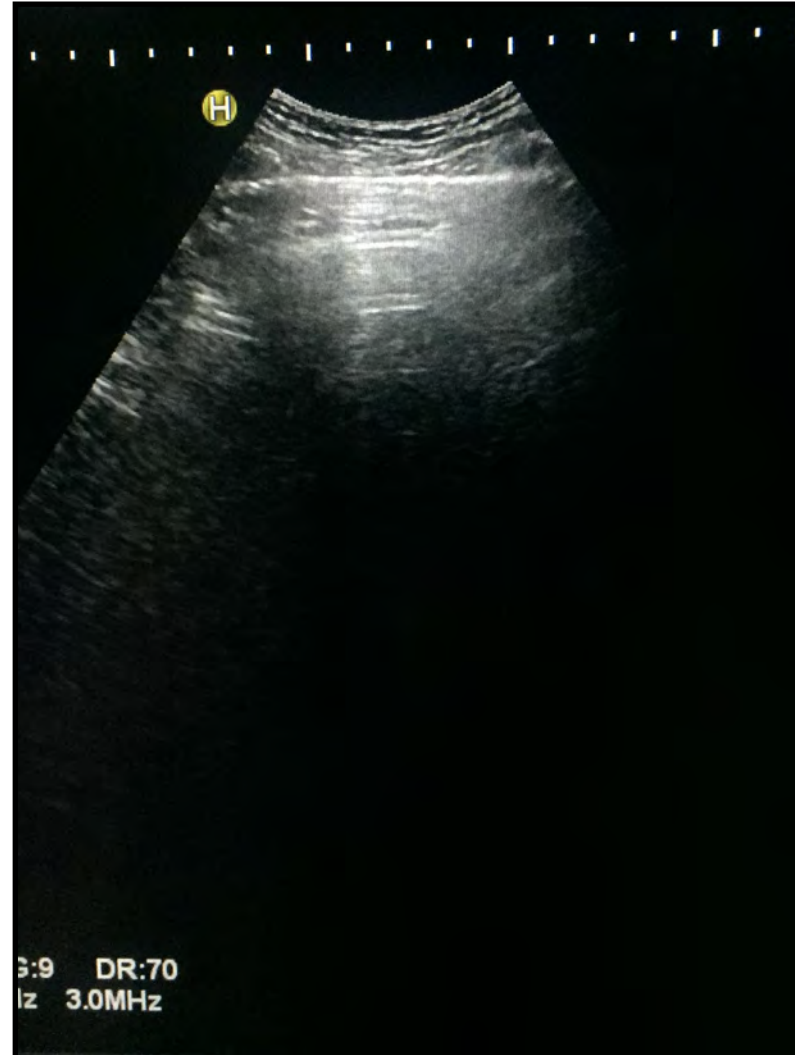
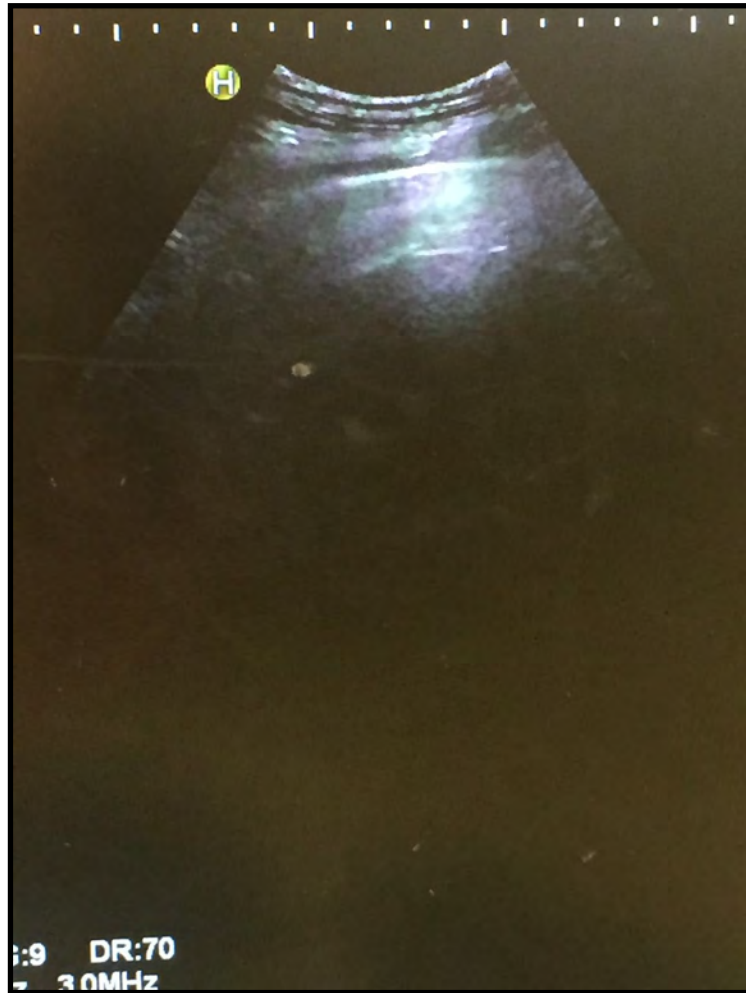








Normal, Aerated Lung







RT LUNG
CR VENT
ICS 6



FR:28
C25

BG:33 DR:70
T:5-1MHz 3.0MHz

Transtracheal Wash

Sheep and Goats

- Bacterial or viral testing
- Prepare midline of middle third of trachea ventrally
- Local lidocaine
- Insert 14 ga needle between rings, bevel and tip pointed down
- Pass 3.5 fr dog polypropylene urinary catheter toward lungs
- Pull needle
- Infuse 10-20 mL nonbacteriostatic saline and aspirate
- Repeat and place samples in RTT



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