

# ANTIMICROBIALS

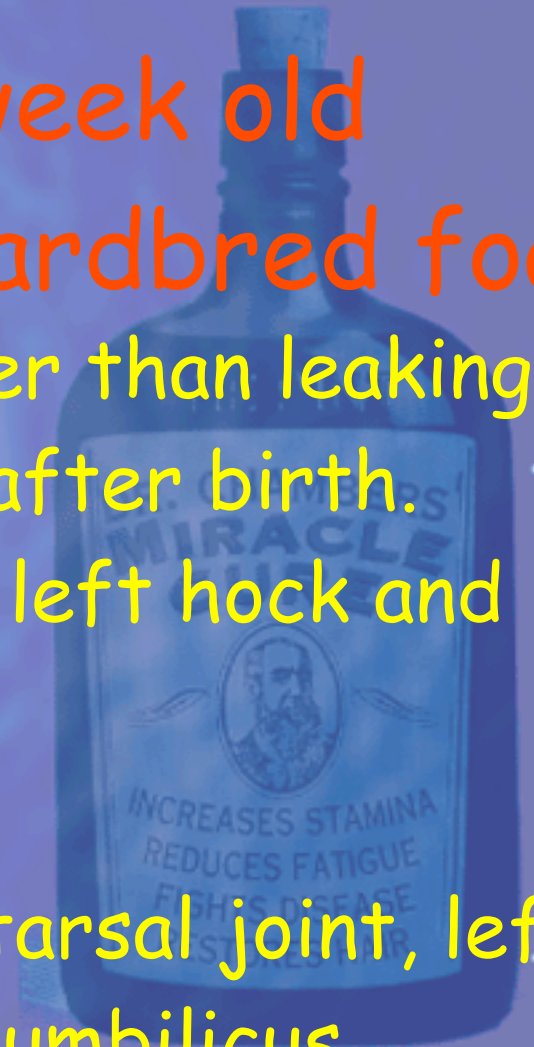
## CASE STUDY -one week old standardbred foal

### History:

Foal was normal until yesterday, other than leaking urine from the umbilicus for 2 days after birth. Yesterday developed swelling of the left hock and is now very lame in that leg.

### Clinical Examination:

Lameness, fluid swelling of the tibiotarsal joint, left hock, febrile with a moist exudative umbilicus.



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## CASE STUDY 1 - 1 week old standardbred foal

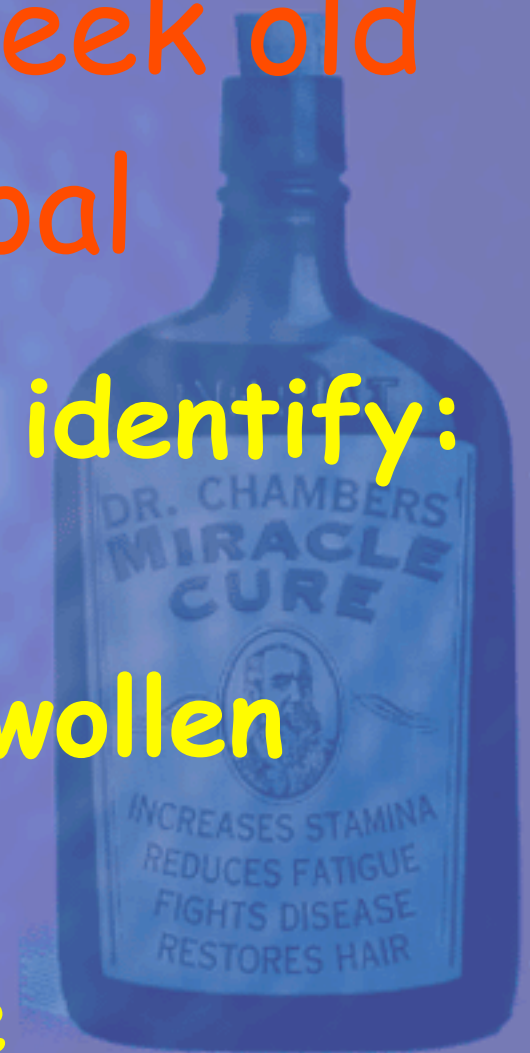
List the Problems you can identify:

Lameness

Tibial tarsal joint is swollen

Fever

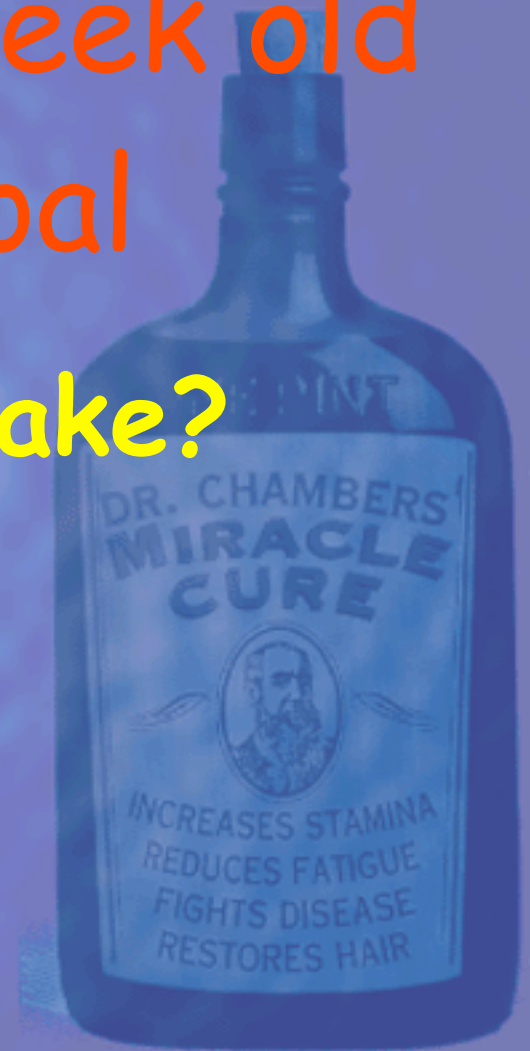
Umbilicus leaking urine



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CASE STUDY 1 - 1 week old  
standardbred foal

What samples would you take?





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## CASE STUDY 1 - 1 week old standardbred foal

Describe your procedures for  
collecting the samples for culture.



# Diagnostic Workup

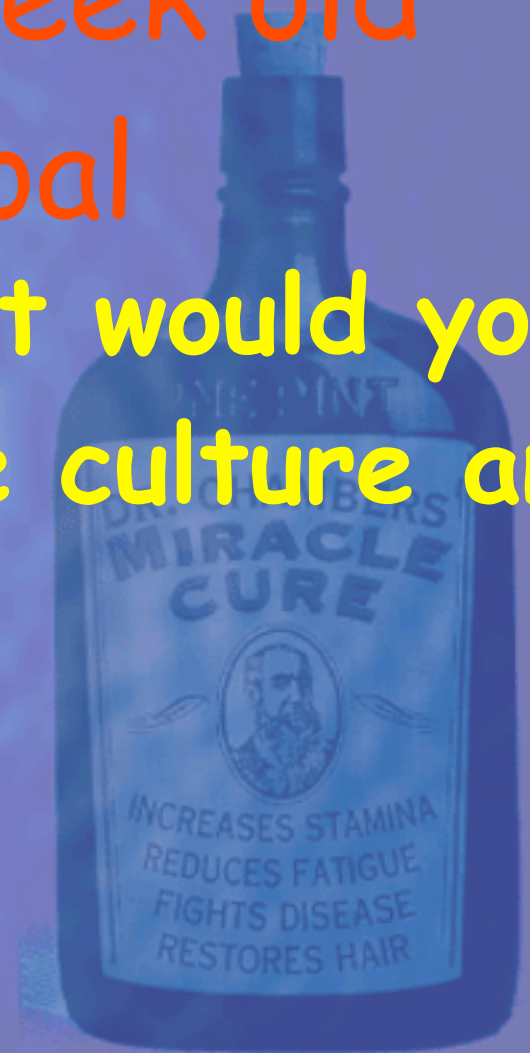
- Radiographs of the left hock do not indicate osteomyelitis.
- Ultrasound scan of the umbilicus indicates fluid accumulation in an umbilical remnant, suggestive of an abscess



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CASE STUDY 1 - 1 week old  
standardbred foal

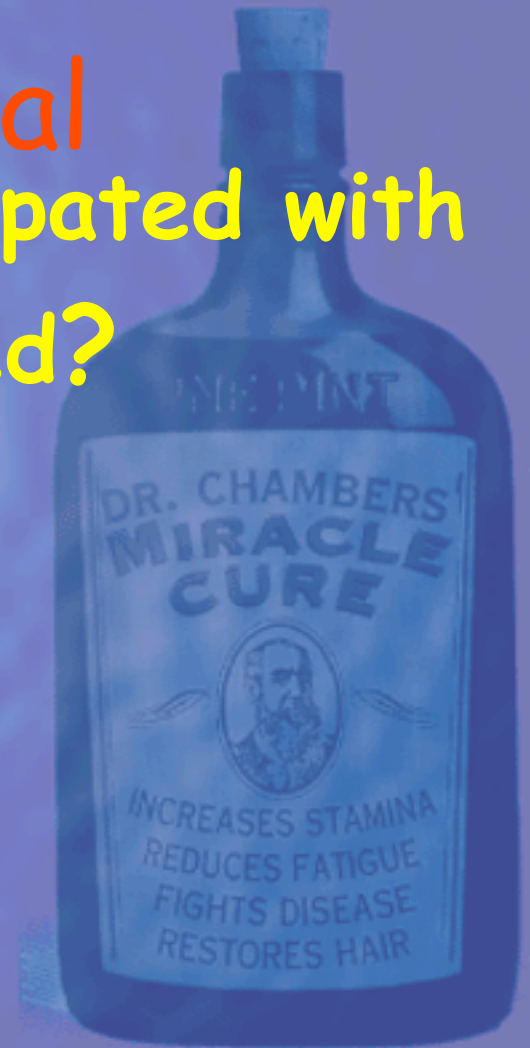
What immediate treatment would you  
give while awaiting the culture and  
sensitivity results?



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## CASE STUDY 1 - 1 week old standardbred foal

What problems might be anticipated with  
the treatment you selected?

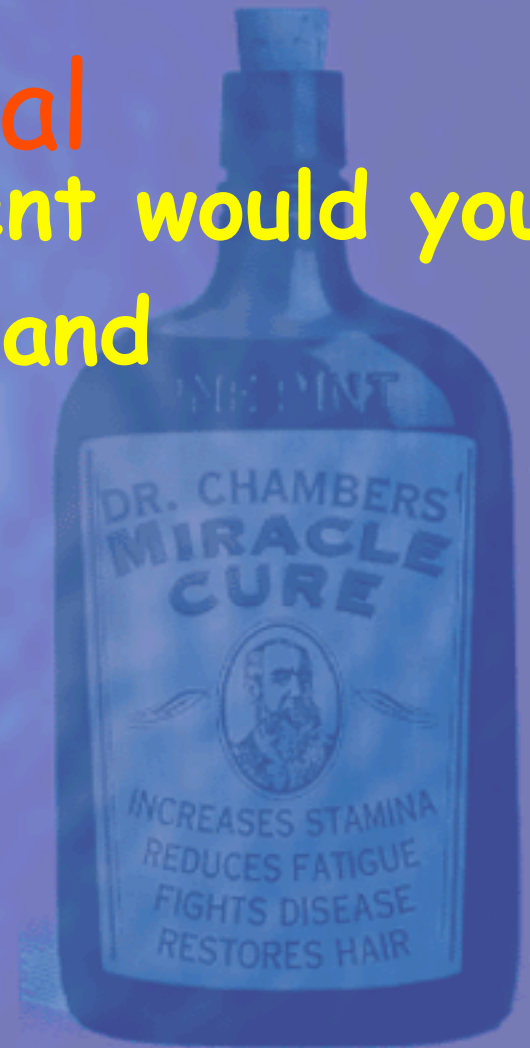




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## CASE STUDY 1 - 1 week old standardbred foal

What other immediate treatment would you give while awaiting the culture and sensitivity results?





# CASE STUDY - 1 week old standardbred foal

## Results:

Joint fluid - E. coli (1)

Blood culture - E coli (2) Bacillus spp (3)

Umbilical fluid - E coli (4)

Antibiotic MIC ug/mL 1,2,4 3

Ampicillin	2	1
Penicillin	>64	0.5
amoxycillin	2	1
co-trimazine	1	0.4
gentamicin (& amikacin)	0.25	0.1
erythromycin	>64	0.032
cephalothin	4	1
oxytetracycline	4	2
enrofloxacin	0.016	0.4



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## CASE STUDY 1 - 1 week old standardbred foal

What antibiotic treatment would you choose based on the sensitivities?

What practical considerations should be taken into account?

How long will the foal need to be treated?



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## CASE STUDY 2- Scottish Terrier named Snapper

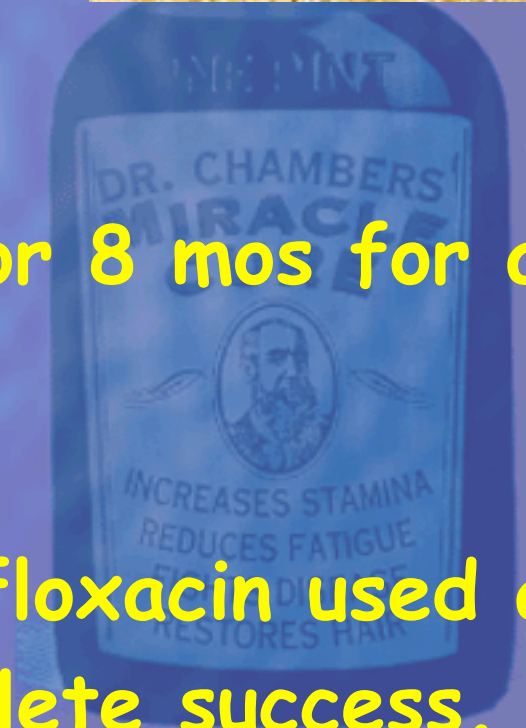
10 year old entire male dog

### History:

Treated by Ref vet "on and off" for 8 mos for a recurrent urinary cystitis

History of dysuria and proteinuria

Amoxycillin, co-trimazine and enrofloxacin used at 6-7 day courses without complete success.





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## CASE STUDY 2- Scottish Terrier named Snapper

List the problems that you can identify:

Recurring urinary problem

Dysuria and proteinuria

Ineffective treatment? Only temporary  
improvement



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## CASE STUDY 2- Scottish Terrier named Snapper

10 year old entire male dog

On clinical examination you find a  
bilaterally symmetrical but large prostate,  
urinary bladder wall slightly thickened and  
dysuria

Now list the problems you identified on  
examination:



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## CASE STUDY 2- Scottish Terrier named Snapper

### Problem List:

dysuria

bilaterally symmetrical enlarged

prostate

urinary bladder wall slightly thickened





# CASE STUDY - Snapper

## Results:

Urine culture - E. coli (1)

Urine culture - Proteus (2)

Antibiotic MIC ug/mL 1 2

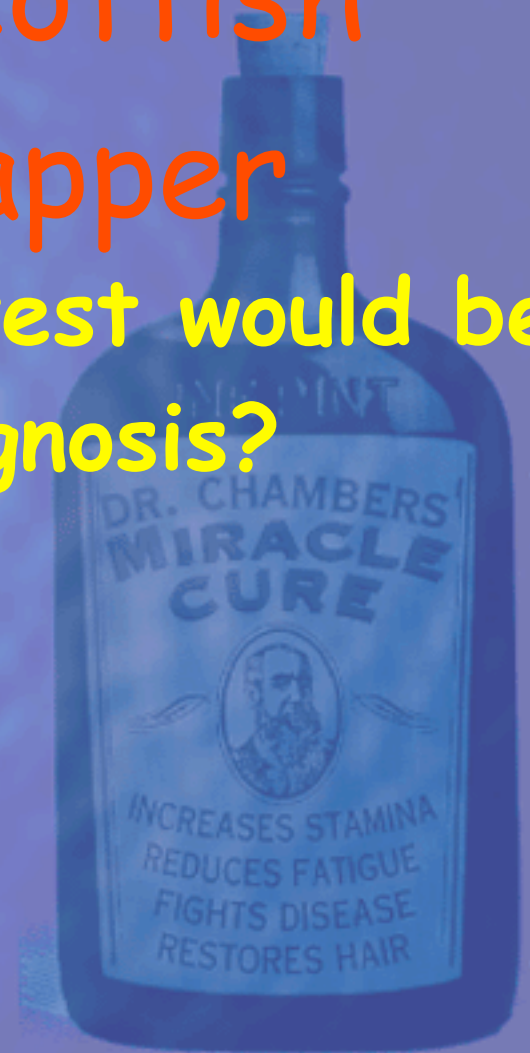
amoxycillin	16	>32
carbenicillin	>32	>32
cephalothin	16	1
cephadroxil	0.5	0.5
erythromycin	1	16
gentamicin	2	>32
amikacin	1	2
co-trimoxazole	0.5	0.5
tetracycline	2	4
norfloxacin	0.08	0.08



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## CASE STUDY 2- Scottish Terrier named Snapper

What other clinical pathology test would be most likely to benefit your diagnosis?



# CASE STUDY - Snapper

## Results:

Urine culture - E. coli (1)

Ejaculate - E. coli (3)

Urine culture - Proteus (2)

Antibiotic MIC ug/mL 1

2

3

amoxycillin	16
carbenicillin	>32
cephalothin	16
cephadroxil	0.5
erythromycin	1
gentamicin	2
amikacin	1
co-trimoxazole	0.5
tetracycline	2
norfloxacin	0.08

>32

>32

1

0.5

16

>32

2

0.5

4

0.08

>32

>32

1

0.5

1

2

1

0.5

2

0.08



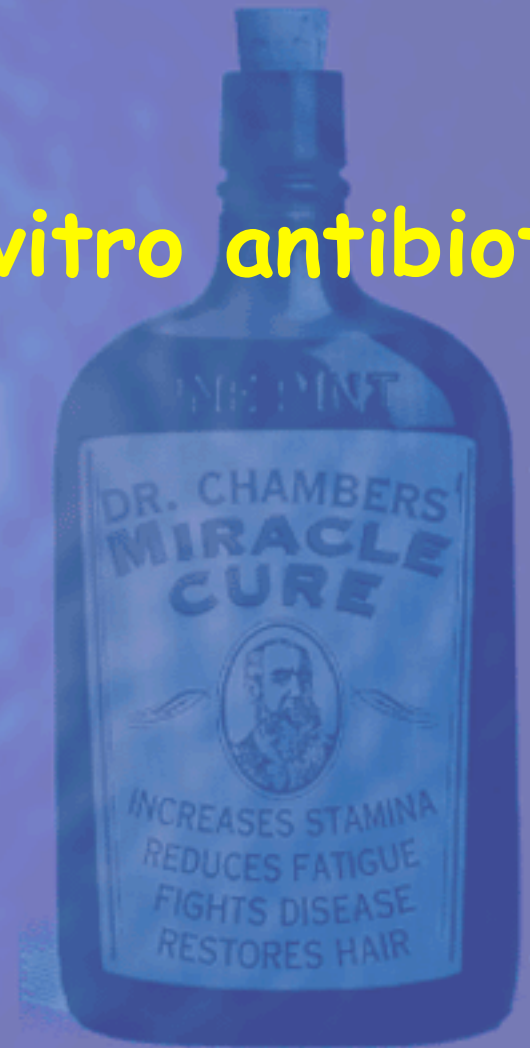


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## CASE STUDY 2- Scottish Terrier named Snapper

What are the limitations of in vitro antibiotic sensitivity testing?

Misleading due to:



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## CASE STUDY 2- Scottish Terrier named Snapper

Choose a treatment plan for Snapper.  
Be able to justify your plan.



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## CASE STUDY 2- Scottish Terrier named Snapper

Antibiotic sensitivity for E. coli:

cephalothin sensitive

cephadroxil sensitive

gentamicin sensitive

amikacin sensitive

co-trimoxazole sensitive

norfloxacin sensitive

