



ANTIMICROBIALS

CASE STUDY -one week old

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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What samples would you take?

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**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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standardbred foal

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

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What problems might be anticipated with the treatment you selected?

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

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