Surgery

Clean surgery, no mitigating factors

Mitigating factors:
- Hypotension
- Surgical duration >90 mins.
- Obese dogs
- Endocrine disorder
- Bacterial dermatitis
- Surgery involves implant.

Duration of therapy: Stop within 24 hours except dermatis - treat until cured.

Clean contaminated surgery

Enterotomy, cystotomy, etc.

First line: Amoxicillin or 1st generation cephalosporin.

Duration of therapy: Stop within 24 hours.

Contaminated surgery

Pyrexia, pruritic, diarrhea, significant bowel leakage.

First line: Amoxicillin or 1st generation cephalosporin and gentamicin and metronidazole.

Duration of therapy: No evidence, 24-48 hours is common in human medicine.

Dirty surgery

Use antimicrobial appropriate for infection (ideally based on culture and sensitivity) and treat until cured.

Timing iv antimicrobials

30-60 mins prior to surgery, repeat cefazolin every 4 hours, amoxicillin every 2 hours.

SC antimicrobials 2 hours prior to surgery.

Clinic policy

Clean.

Clean contaminated.

CONTAMINATED.

Dental surgery

Routine dentals: No antimicrobials

Dentals with extractions

Bacteremia expected for up to approximately 20 mins.

Prophylactic antimicrobials only in patients that cannot tolerate transient bacteraemia (1-2 mins).

Recommended for:
- Immunosuppressed.
- Geriatrics.
- Patients with severe heart disease.
- Patients with systemic illness.

First line: Amoxicillin IV 30 mins or HMG (IM)SC prior to surgery, or clindamycin.

Duration of therapy: One dose only or 2nd dose 6 hours later.

Clinic policy

Clean.

Clean contaminated.

Contaminated.

Upper respiratory disease

Feline rhinitis ≤ 10 days

Limited benefit of corticosteroids or culture & susceptibility testing.

Serous discharge: None.

Mucopurulent or purulent but systemically well: None.

Mucopurulent or purulent but systemically unwell: Doxycycline.

Duration of therapy: 7-10 days.

Feline rhinitis ≥ 10 days

Antimicrobials should be selected based on culture and susceptibility testing.

First line: Amoxicillin or 1st generation cephalosporin or fluoroquinolones or macrolides.

Duration of therapy: 7-10 days.

Otitis externa

Diagnosis

Cytological evaluation should always be performed to identify pathogenic and inflammatory cells.

Culture and susceptibility testing should be performed when:
- Rods are present on cytology.
- Lack of response to antimicrobial therapy.
- Chronic otitis.

Ensure tympanic membrane is intact, ear flushing under GA may be necessary.

First line: Amoxicillin or ampicillin for 5-10 days.

Duration of therapy: 7-10 days.

Second line: Amoxicillin or 1st generation cephalosporin.

Pyoderma

Diagnosis

Cytological evaluation is needed to identify the existence of a bacterial pyoderm.

Use adhesive tape, direct smear, or FNA (for pustules or nodules).

In cases where large areas of body affected or for deep pyoderma in which systemic antimicrobials are being considered.

First line: Amoxicillin or 1st generation cephalosporin.

Duration of therapy: 7-10 days.

Feline rhinitis > 10 days

Interpreting cytology and culture & susceptibility testing difficult.

No evidence that 3rd generation cephalosporins or fluoroquinolones are superior.

Feline rhinitis ≤ 10 days

Mild:

Seroz discharge: None.

Mucopurulent or purulent but systemically well: Doxycycline.

Mild aspiration: No treatment or amoxicillin or 1st generation cephalosporin.

Sporadic uncomplicated cystitis in dogs and cats.

Amoxicillin or trimethoprim/sulphonamide (pending culture and susceptibility testing).

Duration of therapy: 3-5 days.

Should respond in 48h, further investigation if not responding.

Do NOT change antimicrobials empirically.

If responding to therapy and culture results indicate resistance, don't change antimicrobials.

Urine culture should NOT be performed after resolution of clinical signs.

Recurrent (complicated) cystitis in dogs and cats.

Amoxicillin or trimethoprim/sulphonamide (pending culture and susceptibility testing).

Consider work-up for co-morbidities.

Duration of therapy: Goal is for clinical cure NOT microbiological cure.

If reinfection, 0-5 days based on susceptibility testing.

If persistent relapsing infections or urinary tract abnormalities 7-14 days.

See website for indications for new.

Side effects can occur with long term trimethoprim/sulphonamide.

No need for support use of antimicrobials before, during or after removal of an indwelling urinary catheter in dogs or cats.

Studies suggest this may increase resistance. Urine culture before starting treatment.

Clinic policy

First line: Amoxicillin or trimethoprim/sulphonamide (pending culture and susceptibility testing).

Duration of therapy: 3-5 days based on susceptibility testing.

If systemic antimicrobials are being considered.

First line: Vancomycin or ceftriaxone or ceftazidime.

Duration of therapy: >2 weeks.

Acute haemorrhagic diarrhoea

3 categories

1. Malignant diarrhoea, normovolaemic and systemically well.
2. Severe bloody diarrhoea with hypovolaemia but not septic.
3. Severe bloody diarrhoea with hypovolaemia and septic.

Group 1:

- No antimicrobials.

Group 2:

- Fluid therapy and monitor for sepsis.

Group 3:

- Fluid therapy and amoxicillin + gentamicin + metronidazole.

Clinic policy

Group 1:

- No antimicrobials.

Group 2:

- Fluid therapy and amoxicillin + gentamicin + metronidazole.

Group 3:

- Fluid therapy and amoxicillin + gentamicin + metronidazole.

Cellulitis, abscess & traumatic wounds

Diagnosis

History, clinical presentation & cytology.

Culture and susceptibility testing recommended when:

- Lack of response to antimicrobial therapy.
- If doesn't respond consider underlying disease.

Treatment

First line: Draining and flushing alone.

Systemic antimicrobials only when:
- Systemically unwell.
- Diffuse tissue involvement.
- Potential joint involvement.
- Immunosuppressed patient.

Duration of therapy: 5-10 days.

Pneumonia

Diagnosis

Treated for 14 days, culture & susceptibility testing is strongly recommended prior to antimicrobial therapy.

Consider underlying disease process that predisposed to pneumonia.

Consult with microbiologist to interpret results (away contaminants possible).

Treatment


Mild aspiration: No treatment or amoxicillin or 1st generation cephalosporin.

Prophylaxis & sepsis: Ceftriaxone and amoxicillin pending culture and susceptibility results.

Consider metronidazole if anaerobes are suspected.

Duration of therapy: Review after 10-14 days.

Clinical policy

Mild:

Mild aspiration.

Pneumonia & sepsis.

Lower urinary tract disease

Diagnosis

Urinary tract examination and culture of strained or unstrained urine sediment.

Culture and susceptibility testing recommended in all cases (collect via cystocentesis, refrigerate, culture within 24 hrs).

If complicated, consider underlying disease.

Treatment

Remember the majority of cats (particularly young cats) with lower urinary tract signs do not have bacterial cystitis.

Intact male dogs:

Cystitis rare, consider bacterial prostatitis.

Idiopathic cystitis of cats:

No antimicrobial therapy.

Sporadic uncomplicated cystitis in dogs and cats:

Amoxicillin or trimethoprim/sulphonamide (pending culture and susceptibility testing).

Duration of therapy: 3-5 days.

Clinic stewardship champion:

Clinic Stewardship Champion:

Australian veterinary prescribing guidelines.

For more information and further resources visit:

www.fvas.unimelb.edu.au/vetantibiotics