Are you PROTECTing your antibacterials?

**Periodontal disease**
- amoxicillin OR amoxicillin/clavulanate OR ampicillin/DR clindamycin OR metronidazole + opemycin. With or without chlorhexidine mouthwash.
- Practice Policy:

**Respiratory infections**
- Bacterial pneumonia (including aspiration):
  - amoxicillin + metronidazole* + fluroquinolone OR amoxicillin + clarithromycin + metronidazole OR doxycycline OR doxycycline + metronidazole.
  - Practice Policy:
- Viral pneumonia:
  - Practice Policy:
- Bacterial rhinitis, chronic rhinitis and sinusitis: amoxicillin/clavulanate.
- Practice Policy:
- Kennel cough: amoxicillin in mild cases, more severe: amoxicillin/clavulanate OR doxycycline OR doxycycline + metronidazole.
- Practice Policy:
- Pythiosis:
  - Practice Policy:
- Gastrointestinal infections
  - Acute diarrhoea with complications: amoxicillin/clavulanate OR 1st generation cephalosporin.
  - Practice Policy:
  - Alimentary flu (vomiting and diarrhoea):
    - Practice Policy:
  - Confined Campylobacter (if clinically significant): enrofl oxacin OR erythromycin.
  - Practice Policy:
- Chlamydial/haemophilus infection: amoxicillin + metronidazole OR ampicillin or amoxicillin + metronidazole may be added in dogs.
- Practice Policy:
- Gastrointestinal bleeding or bacterial translocation: metronidazole OR amoxicillin/clavulanate OR ampicillin + metronidazole + 1st generation cephalosporin. Add fluoroquinolone or amoxicillin/clavulanate to improve Gram-negatives.
- Practice Policy:
- Suspected Necrotizing enteritis: amoxicillin + metronidazole OR amoxicillin + trimethoprim OR trimethoprim + doxycycline.
  - Practice Policy:

**Genitourinary infections**
- Cystitis: amoxicillin/clavulanate OR trimethoprim/sulfonamide. Many cats with cystitis do not have bacterial infection. - Practice Policy:
- Endometritis/Pyometra: amoxicillin/clavulanate OR trimethoprim/sulfonamide.
- Practice Policy:
- Suspected Leptospirosis: empipen OR penicillin G, doxycycline for carriers. Antimicrobials treat bacille but do not address carrier state.
- Practice Policy:
- Prostatitis (acute): fluoroquinolone OR trimethoprim/sulfonamide. Culture required in chronic cases.
- Practice Policy:
- Prostatitis (chronic): trimethoprim/sulfonamide. Culture required in chronic cases.
- Practice Policy:
- Struvite urolithiasis (dog): amoxicillin/clavulanate OR 1st generation cephalosporin.
- Practice Policy:

**Orthopaedic infections**
- Discospondylitis/Dentostomy: amoxicillin/clavulanate OR 1st generation cephalosporin OR doxycycline. Long courses (8-12 wks) may be needed.
- Practice Policy:
- Septic arthritis: amoxicillin/clavulanate OR 1st generation cephalosporin.
- Practice Policy:

**Skin infections**
- Bite and other traumatic wounds: Loxosceles, deer tick and louse. In cat take amoxicillin first, otherwise choice is for Pyoderma. Heavily infected/deepseated lesions: metronidazole OR amoxicillin/clavulanate + fluoroquinolone are appropriate while awaiting culture results.
- Practice Policy:

**Surgical prophylaxis**
- Prophylactic antimicrobial use is not a substitute for good aseptic technique.
- Practice Policy:
- Infeeted traumatic wound: amoxicillin/clavulanate OR 1st generation cephalosporin.
- Practice Policy:
- Pyodermic unplanned: antibiotics are only appropriate in a few medical cases (e.g. immunocompromised patients).
- Practice Policy:

**Other options**
- Reduce inappropriate antibacterial prescribing (e.g. due to client pressure, in uncomplicated viral infections or self-limiting disease) by providing symptomatic relief (e.g. analgesia, cough suppressants).
- Use cytology and culture to diagnose bacterial infection correctly.
- Effective lavage and debridement of infected material reduces the need for antibacterials.
- Using topical preparations reduces selection pressure on resistant intestinal flora.

**Types of bacteria and drugs**
- Consider which bacteria are likely to be involved (e.g. anaerobic/bacilli, Gram -ve versus Gram +ve)
- Consider the distribution and paraneurism of the drug
- Consider any potential side effects

**Employ narrow spectrum**
- It is better to use narrow-spectrum antibacterials as they limit effects on commensal bacteria
- Avoid using certain antibacterials as first line agents: only use when other agents are ineffective (duly balanced by culture and sensitivity testing)

**Culture and sensitivity**
- Culture promptly when prolonged courses are likely to be needed (e.g. pyodermia, otitis externa, deepseptical wound infection) or when empirical doing has failed

**Treat long enough and at a sufficient dose**
- Treat long enough and at a sufficient dose
- Practice Policy:
- Avoid underdosing
- Treat long enough and at a sufficient dose
- Practice Policy:

**Redec prophyhaxis**
- Antibiotics are not a substitute for surgical aseptics.
- Practice Policy:
- Prophylactic antibacterials are only appropriate in a few medical cases (e.g. immunocompromised patients).
- Practice Policy:

**Others**
- Reduce inappropriate antibacterial prescribing (e.g. due to client pressure, in uncomplicated viral infections or self-limiting disease) by providing symptomatic relief (e.g. analgesia, cough suppressants).
- Use cytology and culture to diagnose bacterial infection correctly.
- Effective lavage and debridement of infected material reduces the need for antibacterials.
- Using topical preparations reduces selection pressure on resistant intestinal flora.

**Antibiotics not indicated under cystic and/or culture is positive**
- Chronic bronchitis/allergic airway disease
- Aspergillosis
- Congestive heart failure
- Urinary
- Feline lower urinary tract disease (including struvite uroliths)
- Urinary incontinence
- Gastroenteritis
- Acute vomiting (uncomplicated)
- Acute diarrhea (uncomplicated)
- Chronic gastrointestinal function - 4 week treatment trial for antibiotic-responsive diarrhea
- Pancreatitis
- Uncomplicated
- Acute, routine castration and ovariohysterectomy
- Resolution of uninfected skin mass not involving major reconstruction
- Metabolic
- Polyuria, polydipsia (unless pyogenic focus suspected)
- Weight loss
- Skin and ear infections
- Malassezia dermatitis
- Acute non-specific pruritus, scaling, nodules, crusts, etc.

**DO NOT USE**
- There are very strong arguments that antibacterials with restricted use in human medicine (e.g. imipenem, linezolid, tetracyclines, vancomycin) should not be used in animals under any circumstances.

**Second and Third Choice Antibacterials**
- These include: amikacin, 3rd generation and 4th generation cephalosporins (except for ENRO) and fluroquinolones. These antibacterials should be used only when other agents are inappropriate (e.g. in penicillin-sensitive individuals) and/or ineffective. Joint and/or sensitivity testing indicates that they will be effective.

**Follow the Cascade**
- Usage of certain antibacterials and drugs are listed in alphabetical order.
- Order of selection should follow the Prescribing Cascade. The following agents are not to be substituted as utility, agents for prophylaxis in surgical antimicrobial, anaerobes, bacteroides, erythromycin, gentamicin, metronidazole. Metronidazole is authorised for use in combination with amoxicillin.
- Oxytetracycline is not authorised for use in the cat.