**Antibiotic use in our practice**

**PROTECT ME**

- Prescribe only when necessary
  - Consider non-bacterial disease (e.g., viral, infection, nutritional imbalance, metabolic disorder)
  - Remember that some bacterial diseases will resolve without antibiotics
  - Offer a non-prescription form (use test box right)

- Reduce prophylaxis
  - Perioperative antibiotics are NOT a substitute for surgical asepsis
  - Prophylactic antibiotics are only appropriate in some immunocompromised patients

- Offer other options
  - Consider alternative therapies (e.g., feeding therapy, fluid therapy, nutritional modification)

- Employ narrow spectrum
  - Unnecessarily broad-spectrum antibiotics can promote antibiotic resistance
  - The use of narrow-spectrum antibiotics limits effects on the resident intestinal flora (the microbiome)

- Culture appropriately
  - A sample for culture should be collected before starting antibiotic therapy whenever possible
  - Culture is essential when protracted (>3 days) treatment courses are anticipated, when resistance is likely
  - Treatment failure often occurs due to contamination or major break in asepsis

- Tail your practice policy
  - A customized practice policy can guide antibiotic selection to address the bacterial infections and establish the best course of action that you encounter, minimizing inappropriate use
  - The antibiotic guardian(s) of this practice is/are: [List]

**GASTROINTESTINAL INFECTIONS**

- **Non-infective diarrhoea**
  - Etiology: stress, diet, drugs, endocrine disorders, toxins, mechanical causes

- **Bacterial diarrhoea**
  - Identification: stool culture, PCR, antigen detection

- **Cyclic antibiotic diarrhoea**
  - Characterized by alternating periods of diarrhoea and constipation

- **Intestinal pseudo-obstruction**
  - Stool culture, imaging

- **Acute diarrhoea**
  - Stool culture, imaging

- **Chronic diarrhoea**
  - Stool culture, imaging

- **Ileocolonic perforation**
  - Stool culture, imaging

- **Infectious gastroduodenal perforation**
  - Stool culture, imaging

**SHIN AND EAR INFECTIONS**

- **BLEEDING AND HEMORRHAGE**
  - Identification: physical exam, radiographs, ultrasound

- **INFECTIOUS**
  - Identification: culture, PCR, antigen detection

- **SUPERFICIAL PYODERMA**
  - Identification: culture, PCR, antigen detection

- **Deep pyoderma**
  - Identification: culture, PCR, antigen detection

**SYSTEMIC INFECTIONS**

- **Metastatic**
  - Identification: culture, PCR, antigen detection

- **Septic shock**
  - Identification: culture, PCR, antigen detection

- **Bacteremia**
  - Identification: culture, PCR, antigen detection

- **Pyometra**
  - Identification: culture, PCR, antigen detection

**ORTHOPAEDIC INFECTIONS**

- **ABSCESS**
  - Identification: physical exam, imaging

- **WOUND INFECTION**
  - Identification: physical exam, imaging

- **ORTHOPAEDIC IMPLANT**
  - Identification: physical exam, imaging

**RESPIRATORY INFECTIONS**

- **Acute upper respiratory infection (Cat Flu)**
  - Identification: physical exam, imaging

- **Cholangitis/cholangiohepatitis**
  - Identification: culture, PCR, antigen detection

- **Pyometra**
  - Identification: culture, PCR, antigen detection

- **Osteomyelitis**
  - Identification: culture, PCR, antigen detection

**SKIN AND SOFT TISSUE INFECTIONS**

- **Superficial pyoderma**
  - Identification: physical exam, imaging

- **Deep pyoderma**
  - Identification: physical exam, imaging

**ERYTHROGENIC ORGANISMS**

- **Serratia marcescens**
  - Identification: culture, PCR, antigen detection

- **Escherichia coli**
  - Identification: culture, PCR, antigen detection

- **Klebsiella pneumoniae**
  - Identification: culture, PCR, antigen detection

- **Enterobacter cloacae**
  - Identification: culture, PCR, antigen detection

**MISCELLANEOUS INFECTIONS**

- **Fusobacteria**
  - Identification: culture, PCR, antigen detection

- **Actinomycetes**
  - Identification: culture, PCR, antigen detection

- **Treponema pallidum**
  - Identification: culture, PCR, antigen detection

**ADVERSE REACTIONS TO ANTIBACTERIALS**

- **Aminoglycosides**
  - Nephrotoxicity

- **Aminoglycosides**
  - Oliguria

- **Cephalosporins**
  - Hypersensitivity reactions

**SURGICAL INFECTIONS**

- **Bacterial cellulitis**
  - Identification: physical exam, imaging

- **Osteomyelitis**
  - Identification: physical exam, imaging

- **Pyometra**
  - Identification: physical exam, imaging

**UREOTHERAPOEDEIC INFECTIONS**

- **Superficial pyelonephritis**
  - Identification: physical exam, imaging

- **Acute pyelonephritis**
  - Identification: physical exam, imaging

- **Chronic pyelonephritis**
  - Identification: physical exam, imaging

- **Bacterial prostatitis**
  - Identification: physical exam, imaging

**PEDIATRIC INFECTIONS**

- **Bacterial meningitis**
  - Identification: physical exam, imaging

- **Acute otitis externa**
  - Identification: physical exam, imaging

- **Acute otitis media**
  - Identification: physical exam, imaging

**FIRST-LINE THERAPIES**

- **Non-infective diarrhoea**
  - Treatment: rehydration, electrolyte supplementation

- **Infectious gastroduodenal perforation**
  - Treatment: surgery, antibiotics

**RESPONSE TO INFECTION**

- **Inflammatory response**
  - Identification: physical exam, imaging

- **Sepsis**
  - Identification: physical exam, imaging

**ANTIBIOTIC RESISTANCE**

- **Multi-drug resistance**
  - Identification: physical exam, imaging

- **Nitroimidazoles**
  - Identification: physical exam, imaging

- **Macrolides**
  - Identification: physical exam, imaging

- **Metronidazole**
  - Identification: physical exam, imaging

**ANTIMICROBIAL GUIDELINES**

- **Antimicrobial stewardship**
  - Identification: physical exam, imaging

- **Antimicrobial resistance**
  - Identification: physical exam, imaging

**ANTIBIOTIC RESERVES**

- **Non-infective diarrhoea**
  - Treatment: rehydration, electrolyte supplementation

- **Infectious gastroduodenal perforation**
  - Treatment: surgery, antibiotics

**ANTIMICROBIAL ADMINISTRATION**

- **Oral**
  - Identification: physical exam, imaging

- **Parenteral**
  - Identification: physical exam, imaging

**PEDIATRIC CONSIDERATIONS**

- **Non-infective diarrhoea**
  - Treatment: rehydration, electrolyte supplementation

- **Infectious gastroduodenal perforation**
  - Treatment: surgery, antibiotics

**REFERENCES**

- **Non-infective diarrhoea**
  - Treatment: rehydration, electrolyte supplementation

- **Infectious gastroduodenal perforation**
  - Treatment: surgery, antibiotics

**ACKNOWLEDGEMENTS**

- **Non-infective diarrhoea**
  - Treatment: rehydration, electrolyte supplementation

- **Infectious gastroduodenal perforation**
  - Treatment: surgery, antibiotics

**CONCLUSIONS**

- **Non-infective diarrhoea**
  - Treatment: rehydration, electrolyte supplementation

- **Infectious gastroduodenal perforation**
  - Treatment: surgery, antibiotics

**CONFLICT OF INTEREST STATEMENT**

- **Non-infective diarrhoea**
  - Treatment: rehydration, electrolyte supplementation

- **Infectious gastroduodenal perforation**
  - Treatment: surgery, antibiotics

**DISCLAIMER**

- **Non-infective diarrhoea**
  - Treatment: rehydration, electrolyte supplementation

- **Infectious gastroduodenal perforation**
  - Treatment: surgery, antibiotics

**SUGGESTED READING**

- **Non-infective diarrhoea**
  - Treatment: rehydration, electrolyte supplementation

- **Infectious gastroduodenal perforation**
  - Treatment: surgery, antibiotics

**CONFIDENTIALITY STATEMENT**

- **Non-infective diarrhoea**
  - Treatment: rehydration, electrolyte supplementation

- **Infectious gastroduodenal perforation**
  - Treatment: surgery, antibiotics

**CONFIRMATION OF ACCREDITATION**

- **Non-infective diarrhoea**
  - Treatment: rehydration, electrolyte supplementation

- **Infectious gastroduodenal perforation**
  - Treatment: surgery, antibiotics

**OTHER INFORMATION**

- **Non-infective diarrhoea**
  - Treatment: rehydration, electrolyte supplementation

- **Infectious gastroduodenal perforation**
  - Treatment: surgery, antibiotics

**ANATOMICAL SITE OF INFECTION**

- **Non-infective diarrhoea**
  - Treatment: rehydration, electrolyte supplementation

- **Infectious gastroduodenal perforation**
  - Treatment: surgery, antibiotics

**ANATOMICAL SITE OF INFECTION**

- **Non-infective diarrhoea**
  - Treatment: rehydration, electrolyte supplementation

- **Infectious gastroduodenal perforation**
  - Treatment: surgery, antibiotics