

# Common Community Infections:

## Key Clinical Pearls

### Acute rhinosinusitis\*

#### 90-98% viral

- Can be difficult to distinguish between viral and bacterial etiology
- Self-limiting; use established criteria, such as *PODS*<sup>3</sup> to assist with determination
- Reserve antibiotics for patients who meet the criteria and if symptoms have either not improved for >10 days or have gotten worse after an initial period of improvement

### Acute bronchitis\*

#### >90% viral

- Self-limiting; antibiotics are not recommended.
- Reconsider other etiology's such as pertussis if symptoms worsen, new symptoms develop, cough persists >3 weeks or patient has experienced >3 episodes/year.

### Upper respiratory tract infection (i.e. common cold or flu)

#### Viral

- Most infections of the nose and throat do not require antibiotics
  - ▶ Recommend and administer the seasonal influenza vaccine for infection prevention.
  - ▶ Sputum color (i.e. green, yellow, etc.) does not correlate with the presence of a bacterial infection

### Uncomplicated urinary tract infection

#### Bacterial

- Most common infecting organisms: *Escherichia coli* (80-90%), *Staphylococcus saprophyticus* (5-10%), *Klebsiella pneumoniae*, *Proteus mirabilis*
- Urine cultures are generally not recommended for most initial episodes.
- Clinical diagnosis is reliable based on past medical history, presence of localizing urinary symptoms, and history of presenting illness
- Empiric antimicrobial therapy may be appropriate to reduce the duration of symptoms and the risk of disease progression (i.e., to pyelonephritis).

### Acute otitis media (AOM)\*

#### Viral or bacterial

- Antibiotics are not necessary in vaccinated children >6 months old or in adults suspected to have AOM
- Consider antibiotics if bulging or perforated *TM*<sup>1</sup> with purulent discharge in addition to other signs of more severe infection (e.g. fever, irritability) or symptoms lasting >48 hours or in children <6 months
- *Delayed prescribing*<sup>2</sup> or watchful waiting can be considered for patients who do not meet above criteria
- Pneumococcal and influenza vaccination may reduce the incidence of AOM

### Pharyngitis\*

#### 80-90% viral

- Self-limiting; treat only with antibiotics if patient has a Centor score<sup>4</sup> ≥2 AND a positive culture or rapid antigen test confirms Group A Streptococcus (*S. pyogenes*)
- Throat swabs are not necessary for patients with Centor score ≤1 or if there are symptoms of a viral infection.

### Community-acquired pneumonia

#### Mainly bacterial

- Most commonly caused by *S. pneumoniae*
- Cannot be diagnosed by physical examination alone – a chest x-ray is needed to confirm the presence of a new consolidation.
- Empiric antimicrobial therapy is generally considered appropriate

\*Most cases are viral and can be treated solely through symptom management

1. TM = tympanic membrane

2. Delayed prescribing = Practice of issuing of a post-dated prescription to be used by the patient if their symptoms do not improve

3. PODS = P: Facial Pain/pressure/fullness; O: Nasal Obstruction; D: Purulent/discolored nasal or postnasal Discharge; S: Hyposmia/anosmia (Smell)

4. Centor Score = validated diagnostic tool used to assess whether a patient requires diagnostic testing or just symptom management



1. Choosing Wisely Canada. Using Antibiotics Wisely in Primary Care. <https://choosingwiselycanada.org/campaign/antibiotics/>. Accessed August 15, 2023.
2. RxFiles. Antibiotics and common infections ABX-2: Uncomplicated Cystitis & Skin: Stewardship, Effectiveness, Safety and Clinical Pearls. <https://www.rxfiles.ca/rxfiles/uploads/documents/ABX-2-Newsletter-Cystitis-and-SSTI.pdf> (uwaterloo.ca). Published April 2017. Accessed August 15, 2023.
3. Chow AW, Benninger MS, Brook I, Brozek JL, Goldstein EJC, Hicks LA, et al. IDSA clinical practice guideline for acute bacterial rhinosinusitis in children and adults. Clin Infect Dis. 2012;54(8): e72-e112.  
doi: <https://doi.org/10.1093/cid/cis370>.
4. Barrett, B. Acute Rhinosinusitis. In: Compendium of Therapeutics for Minor Ailments. Ottawa, ON: Canadian Pharmacists Association. [Updated Oct 2022; Accessed August 2023].  
<https://myrxtx-ca.proxy.lib.uwaterloo.ca/search>

