The Role of Empiric Antibiotics in COVID-19 Pneumonia



Clinical Considerations

V Role of Antibacterial Management

Natural course of COVID can include:



Persistent fever (10+ days)



Worsening of symptoms around Day 7-10 from progression of viral illness

Superimposed bacterial co-infections are uncommon in COVID-19 pneumonia



Bacterial co-infection rates only 3.5% at time of admission

Most bacterial co-infections occur post-admission



Hospital-acquired infections occurred in 14.3% of patients with COVID-19

Unnecessary antibiotic use is harmful



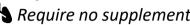
Can result in escalation to broader **1** antibiotics if true bacterial infections arise during admission



Empiric atypical coverage with Azithromycin is not routinely recommended

> Clin Microbiol Infect. 2020 Dec;26(12):1622-29 Ontario COVID-10 Clinical Practice Guidelines

Mild/Moderate Illness - Medical/COVID-19 Ward



Require no supplemental O_2 or low-flow O_2 via nasal prongs



Empiric antibiotic therapy not routinely recommended Consider discontinuing antibiotics if currently prescribed

Critical Illness - ICU/CCRT Involvement





Bacterial co-infection is uncommon in COVID-19 pneumonia at the time of presentation

Do not initiate empiric antibiotics unless a superimposed bacterial infection is strongly suspected – consider the following circumstances



Radiographic evidence of superimposed bacterial pneumonia Unilobar or unilateral focal infiltrate and lower respiratory tract symptoms



"Double sickening" presentation

Period of improvement followed by worsening lower respiratory tract symptoms, fever

If Antimicrobial Therapy Appropriate



Ceftriaxone 1 g IV q24h x 5 days *If anaphylaxis to beta-lactams – Levofloxacin 750 mg IV/PO q24h*



Consider step down to oral beta-lactam therapy when clinically stable