

Acute COPD Exacerbation



Acute exacerbations of COPD are often caused by viral pathogens. Careful consideration should be given to avoid antimicrobial therapy, particularly in patients with mild symptoms.

Clinical Considerations

GOLD guidelines characterized cases where antimicrobial therapy is likely to provide benefit in the management of COPD exacerbations, based on the following criteria:

- ✎ Patient has **three** cardinal symptoms: increased in dyspnea, sputum volume, and sputum purulence
- ✎ Patient has **two** of the cardinal symptoms, if **purulence of sputum is one of the two** symptoms
- ✎ Patient requires **mechanical ventilation** (invasive or non-invasive)

Patients with radiographic evidence of infiltrates, pulmonary consolidations or airspace disease should be assessed for pneumonia. Refer to our guidelines for the management of [community-acquired pneumonia](#).

Common Pathogens

S. pneumoniae

H. influenzae

M. catarrhalis

Klebsiella spp.

Treatment Recommendations

First-line therapy

- ✎ Amoxicillin-clavulanate 875 mg/125 mg PO BID
- ✎ Cefuroxime 500 mg PO BID

If unable to take PO medications

Ceftriaxone 1 g IV q24h

If anaphylaxis to beta-lactams

Levofloxacin 750 mg PO daily

Duration of Therapy

5 days