

Appendix E: Antibiotic Treatment Recommendations for Acute Exacerbations of COPD (AECOPD)

| Antibiotic Treatment Recommendations for Acute COPD Exacerbations | | |
|--|---|---|
| Category | Symptoms & Risk Factors | Antimicrobial treatment |
| Simple COPD No risk factors | Increased dyspnea, increased cough and sputum, sputum purulence <ul style="list-style-type: none"> • FEV₁ ≥ 50% of predicted • < 4 exacerbations/year | First Choice (alphabetical) <ul style="list-style-type: none"> • amoxicillin • doxycycline • trimethoprim/sulfamethoxazole Alternate Antibiotics: <ul style="list-style-type: none"> • beta-lactam/beta-lactamase inhibitor • extended spectrum macrolides • 2nd or 3rd generation cephalosporins |
| Complicated COPD Have 1 or more risk factors for treatment failure and/or more virulent or resistant pathogens | Increased dyspnea, increased cough and sputum, sputum purulence plus at least 1 of the following: <ul style="list-style-type: none"> • FEV₁ < 50% of predicted • ≥ 4 exacerbations/year • ischemic heart disease • use of home oxygen • chronic oral steroid use • antibiotic use in the past 3 months | First Choice <ul style="list-style-type: none"> • antibiotics for uncomplicated patients when combined with oral steroids may suffice • beta-lactam/beta-lactamase inhibitor • fluoroquinolones (newer) Alternate Antibiotics May require parental therapy. Consider referral to specialist or hospitalization. |
| References: CTS COPD Recommendations - highlights for primary care. Can Respir J 2008;15(Suppl A):1A-8A. | | |

Fluoroquinolone resistance increases with frequent prescriptions. Avoid these medications if prescribed in the previous 3 months (for any indication), and consider an antibiotic from a different class.