Anti-infective Treatment Recommendations for COPD in patients WITHOUT Community Acquired Pneumonia (CAP)

Use antimicrobials if 2 or more of the following are present:

- ☐ Increased dyspnea
- ☐ Increased sputum volume
- ☐ Increased sputum purulence

Recommended duration of therapy is 5-7 days

Anti-infective doses may require adjustment for GFR less than 30 mL/min. Please consult a clinical pharmacist.

Adapted from Canadian Thoracic Society Guidelines

Group/ Clinical Status	Symptoms & Risk Factors	Probable Pathogens	Empirical Anti-infective¥
COPD exacerbation			
Simple (without risk factors)	Increased sputum purulence and dyspnea	*Haemophilus influenzae*, *Haemophilus* sps, *Moraxella catarrhalis*, *Streptococcus pneumoniae* *Chlamydia pneumoniae* Viruses	amoxicillin, doxycycline, co-trimoxazole, clarithromycin, ceFUROxime
Complicated (with risk factors)	As in simple plus at least ONE of: ▪ FEV_1 less than 50% predicted ▪ 4 or more exacerbations/year ▪ Ischemic heart disease ▪ Use of home oxygen ▪ Chronic oral steroid use	As in simple plus: Increased probability of beta-lactam resistance (beta-lactamase producing penicillin-resistant *S.pneumoniae*) *Klebsiella* sps and other Gram-negatives (*E.coli, Proteus, Enterobacter*), *Pseudomonas* species	amoxicillin-clavulanate, moxifloxacin
Complicated (with risk factors) and *Pseudomonas* suspected	As in complicated plus: isolation of *Pseudomonas* during previous exacerbation or colonization during a stable period	*Pseudomonas* species†	piperacillin-tazobactam (or equivalent anti-pneumococcal, anti-pseudomonal beta-lactam), ciprofloxacin, ceftAZIDime**, aminoglycoside

¥ Refer to hospital formulary for specific antibiotic choices; repeat prescriptions of the *same* antibiotic should be avoided within a three-month interval.
†Please refer to previous sensitivities of *Pseudomonas* species (if available) in order to guide the choice of empiric antibiotic.
**If ceftAZIDime is selected, double coverage with an additional anti-pseudomonal agent (e.g. ciprofloxacin or aminoglycoside) is recommended.

Prescribing Guidelines

Recommended duration of treatment for oral corticosteroids is 7-14 days for moderate-severe exacerbations

methylPREDNISolone 40 mg IV is equivalent to predniSONE 50 mg PO

Maintenance inhalers may be started on days 3 to 5 of hospitalization

Review PharmaNet and consider restarting inhalers used prior to admission

Assess regular salBUTamol use and discontinue or adjust as necessary

Nicotine Replacement Therapy Orders: Initiate if the patient has used tobacco in the past 6 months AND the past 7 days

Canadian Thoracic Society recommendations for optimal *maintenance* therapy in COPD:

*For moderate to severe disease (an average of one or more AECOPD/year or FEV_1 below 65% predicted); select **one** of:*

*fluticasone-salMETERol 125-25 mcg or 250-25 mcg MDI 2 puffs via aerochamber BID (ADVAIR) ✳**OR**✳

*fluticasone-salMETERol 250-50 mcg or 500-50 mcg DISKUS 1 inhalation BID (ADVAIR) ✳**OR**✳

*budesonide-formoterol 200-6 mcg TURBUHALER 2 inhalations BID (SYMBICORT)

✳**AND**✳

If on tiotropium prior to admission, discontinue regularly-scheduled ipratropium and restart:
*tiotropium 18 mcg HANDIHALER 1 inhalation daily (SPIRIVA)

*Special authority to be completed on discharge if prescription is new to the patient (unless prescribed by a Respirologist)