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

CATEGORY	RECOMMENDED EMPIRIC THERAPY (ALPHABETICAL ORDER)	NOTES
< 4 exacerbations/year and at least 2 of the following: • increased sputum purulence • increased sputum volume • increased dyspnea	**First line agents:** **amoxicillin** 1 g PO TID or **doxycycline** 200 mg PO once, then 100 mg PO BID or **sulfamethoxazole-trimethoprim** 1 DS (800-160 mg) tablet PO BID **Failure of first line agents: see below**	Treat for 5 to 7 days. Evidence indicates that 5 days of treatment may be as effective as 7 to 10 days.
≥ 4 exacerbations/year and at least 2 of the following: • increased sputum purulence • increased sputum volume • increased dyspnea or **Failure of first line agents above**[1] or **Antibiotics in the past 3 months**[2]	**First line agents:** **amoxicillin-clavulanate** 875-125 mg PO BID for 5 to 10 days or **cefuroxime axetil** 500 to 1000 mg PO BID for 5 to 10 days or **levofloxacin3** 750 mg PO once daily for 5 days **Alternatives:** **azithromycin4** 500 mg PO BID for 3 days or **clarithromycin4** 500 mg PO BID or 1000 mg extended-release (XL) PO once daily for 5 to 10 days	1. Failure of first line agents: no improvement in symptoms following completion of antibiotic therapy OR clinical deterioration after 72 hours of antibiotic therapy. 2. Use a different antibiotic class than was used previously. 3. Due to the broad spectrum of levofloxacin, potential for increasing resistance and risk of *C. difficile* infection, reserve this medication for beta-lactam allergies or failure to first line antibiotic therapy. 4. Macrolides have poor *Haemophilus* coverage and significant *S. pneumoniae* resistance. The benefit of macrolides may be due more to anti-inflammatory properties than to antibacterial activity.

References

Blondel-Hill E, Fryters S. Bugs & Drugs 2012. 2012 edition. Edmonton, AB: Alberta Health Services; 2012.
Canadian Pharmacists Association. Chronic Obstructive Pulmonary Disease. Revised: July 2015.