

INFECTIVE EXACERBATION OF COPD V 2.0

Comments from the Expert Advisory Group

- Acute exacerbations of COPD may be triggered by viral as well as bacterial infections therefore many exacerbations (including some severe exacerbations) will not respond to antibiotics. In addition some exacerbations may be caused by non-infective triggers e.g. environmental pollution.
- Initiate short-acting bronchodilator therapy and 5 day course oral prednisolone 30 mg per day.
- Ensure all patients are up to date with influenza vaccine, COVID-19 vaccine and pneumococcal vaccine.
- Consider prescribing antibiotics if exacerbation is associated with increased dyspnoea and increased sputum volume or purulence.
- Consider sending sputum for culture especially if frequent exacerbations or if symptoms have not improved following antibiotic treatment.
- If patient colonised with multidrug resistant organisms, empiric first line antibiotics may not be effective or appropriate. Contact consultant microbiologist, consultant respiratory physician or infectious diseases specialist according to local referral pathways.
- In penicillin allergy, doxycycline is the preferred choice.
- Azithromycin should not be used for prevention of exacerbations of COPD except under the direction of a respiratory physician. It is effective in a very select subgroup of COPD patients.
- Consider pulse oximetry to assess oxygenation.

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Treatment

Infective Exacerbation of COPD Empiric Antibiotic Treatment Table (Page 1 of 2)			
Drug	Dose	Duration	Notes
1st choice options			
Amoxicillin	500 mg every 8 hours Consider 1 g every 8 hours for severe infection	5 days	Avoid in penicillin allergy
OR Doxycycline <i>(First choice in penicillin allergy)</i>	200 mg every 24 hours OR 100 mg every 12 hours OR in non-severe infection, Doxycycline 200 mg stat then 100 mg every 24 hours can be considered.	5 days	Avoid in pregnancy. Advise to take with a glass of water and sit upright for 30 minutes after taking. Can take with food or milk if gastritis is an issue. Absorption of doxycycline significantly impaired by antacids, iron/calcium/magnesium/zinc-containing products.
OR Clarithromycin <i>(Second line in penicillin allergy)</i>	500 mg every 12 hours	5 days	Avoid if on azithromycin prophylaxis. See macrolide warnings and check drug interactions before prescribing Macrolides should be used with caution in pregnancy. Clarithromycin suitable only in 2 nd and 3 rd trimester in pregnancy. Alternative macrolide for all trimesters of pregnancy: Azithromycin 500 mg stat then 250 mg every 24 hours from Day 2 to Day 5.
2nd choice options or high risk of treatment failure (continued on the next page)			
Consider hospital admission. Check for consultant guidance from previous consultation. Consider choosing antibiotic from a different class to previous antibiotic. Consider consultation with respiratory physician / microbiologist / infectious diseases if treatment options are limited.			
Co-amoxiclav	500/125 mg every 8 hours In some cases, 875/125 mg every 8 hours may be advised by microbiology or infectious diseases	5 days	Avoid in penicillin allergy
OR			
Table continued on the next page			

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Infected Exacerbation of COPD Empiric Antibiotic Treatment Table (Page 2 of 2)

2nd choice options or high risk of treatment failure (continuation from previous page)

If patient has a penicillin allergy and options below previously prescribed consider consultation with respiratory physician / microbiologist / infectious diseases.

Drug	Dose	Duration	Notes
Doxycycline <i>(suitable in penicillin allergy)</i>	200 mg every 24 hours OR 100 mg every 12 hours.	5 days	Avoid in pregnancy. Advise to take with a glass of water and sit upright for 30 minutes after taking. Can take with food or milk if gastritis is an issue. Absorption of doxycycline significantly impaired by antacids, iron/calcium/magnesium/zinc-containing products.
OR Clarithromycin <i>(suitable in penicillin allergy)</i>	500 mg every 12 hours	5 days	~Avoid if on azithromycin prophylaxis. See macrolide warnings and check drug interactions before prescribing. Macrolides should be used with caution in pregnancy. Clarithromycin suitable only in 2 nd and 3 rd trimester in pregnancy. Alternative macrolide for all trimesters of pregnancy: Azithromycin 500 mg stat then 250 mg every 24 hours from Day 2 to Day 5.

Patient Information

- For more information on COPD see [COPD Overview](#)
- [COPD Support Ireland](#)