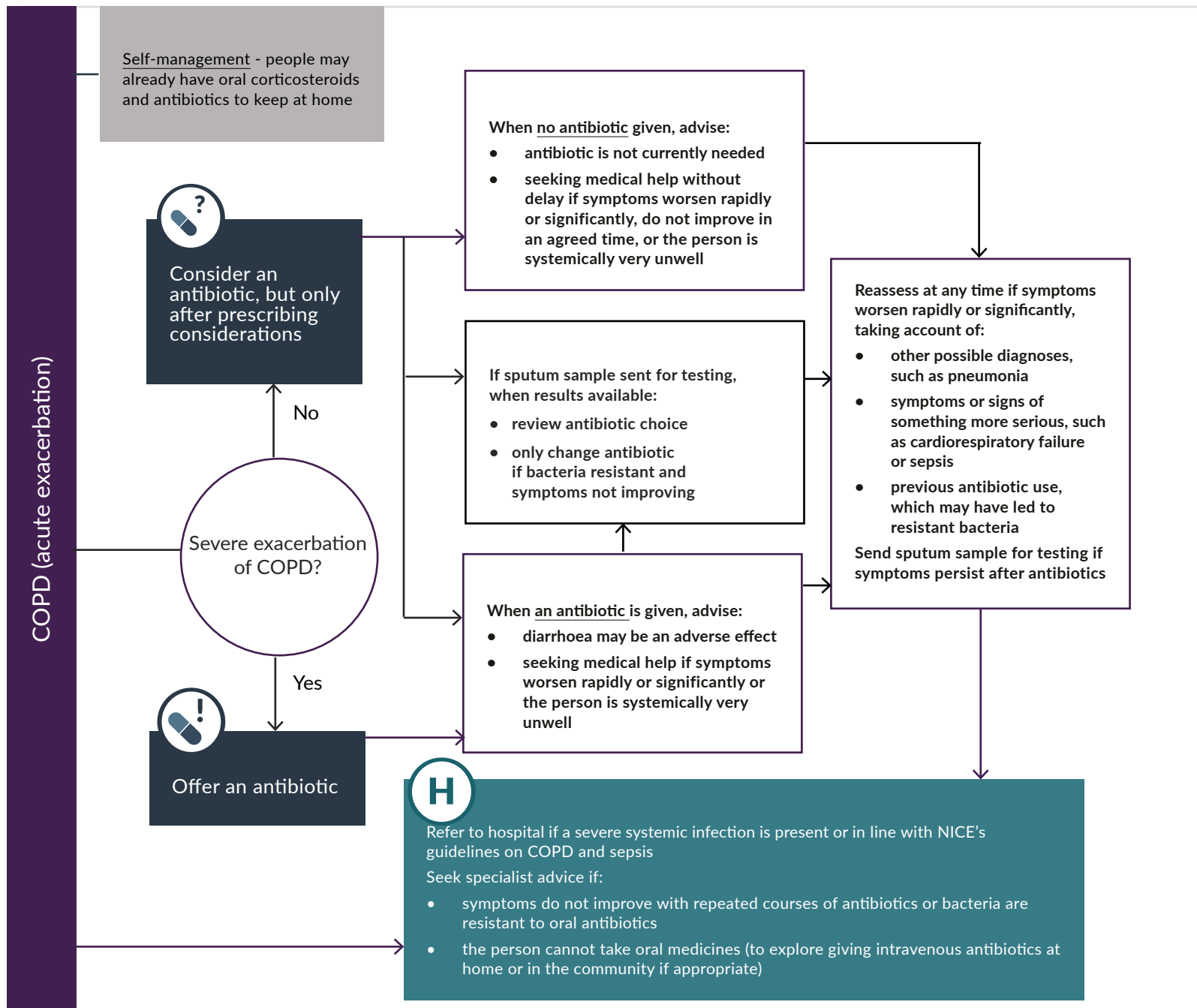


# COPD (acute exacerbation): antimicrobial prescribing



## **i** Background

An acute exacerbation of COPD is a sustained worsening of symptoms from a person's stable state

Many exacerbations of COPD are not triggered by bacteria so won't respond to antibiotics. Some are caused by viral infections or smoking

## **i** Prescribing considerations

When considering antibiotics, take account of:

- the number and severity of symptoms
- the evidence of uncertain benefit (particularly with fewer or less severe symptoms)
- whether hospital treatment is needed
- previous exacerbations, hospitalisations and risk of developing complications
- results of previous sputum testing
- risk of antimicrobial resistance with repeated courses of antibiotics

Give oral antibiotics first line if possible

## **i** Severe exacerbation

An exacerbation of COPD is severe if:

- hospital admission is needed, or
- there are more symptoms (increased cough, breathlessness, sputum volume, purulence), or
- symptoms are more severe

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## Choice of antibiotic for treating an acute exacerbation: adults aged 18 years and over

Antibiotic <sup>1</sup>	Dosage and course length <sup>2</sup>
First choice oral antibiotics <sup>3,4,5</sup>	
Amoxicillin	500 mg three times a day for 5 days
Doxycycline	200 mg on first day, then 100 mg once a day for 5-day course in total
Clarithromycin	500 mg twice a day for 5 days
Erythromycin	500 mg four times a day for 5 days
Second choice oral antibiotics (no improvement in symptoms on first choice taken for at least 2 to 3 days [or other agreed time], guided by susceptibilities when available)	
Use alternative first choice (from a different class)	As above
Alternative choice oral antibiotics if severely unwell or a higher risk of resistance (guided by susceptibilities when available)	
Co-amoxiclav	500/125 mg three times a day for 5 to 7 days
Levofloxacin	500 mg once daily for 5 to 7 days
Moxifloxacin	400 mg once daily for 5 to 7 days
Co-trimoxazole <sup>6</sup>	960 mg twice a day for 5 to 7 days
First choice intravenous antibiotics (if unable to take oral antibiotics, guided by susceptibilities when available) <sup>5,7</sup>	
Co-amoxiclav	1.2 g three times a day
Azithromycin	500 mg once daily
Clarithromycin	500 mg twice daily
Co-trimoxazole <sup>6</sup>	960 mg to 1,440 mg twice a day
Second choice intravenous antibiotics - Consult local microbiologist (guided by susceptibilities)	
<sup>1</sup> See <a href="#">BNF</a> for appropriate use and dosing in specific populations, for example, hepatic impairment, renal impairment, pregnancy and breast-feeding. <sup>2</sup> Doses given are by mouth using immediate-release medicines, unless otherwise stated. <sup>3</sup> Empirical treatment or guided by most recent sputum culture and susceptibility. <sup>4</sup> Amoxicillin or erythromycin are the preferred choices in women who are pregnant. <sup>5</sup> If a person is receiving prophylactic antibiotics, treatment should be with an antibiotic from a different class. <sup>6</sup> Co-trimoxazole should only be considered for use in acute exacerbations of COPD when there is bacteriological evidence of sensitivity and good reason to prefer this combination to a single antibiotic ( <a href="#">BNF</a> , April 2018). <sup>7</sup> Review intravenous antibiotics by 48 hours and consider stepping down to oral antibiotics where possible.	

The recommendations are from NICE's draft antimicrobial prescribing and clinical guidelines on COPD.

When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.