COPD Exacerbation Rescue Medication Pack - Guidance for Prescribers
(Use in conjunction with Nottinghamshire COPD guidelines)

NHS Nottingham and Nottinghamshire

Summary

Patient held emergency supply packs of exacerbation rescue medication (antibiotics and/or steroids) are:

- **Not suitable** for all patients with COPD
- **May be suitable** for patients who:
  - **Are able and willing,** following appropriate **education and advice,** to self-manage
  - Have a COPD self-management plan
  - Have had previous exacerbations
  - Can appropriately recognise an exacerbation

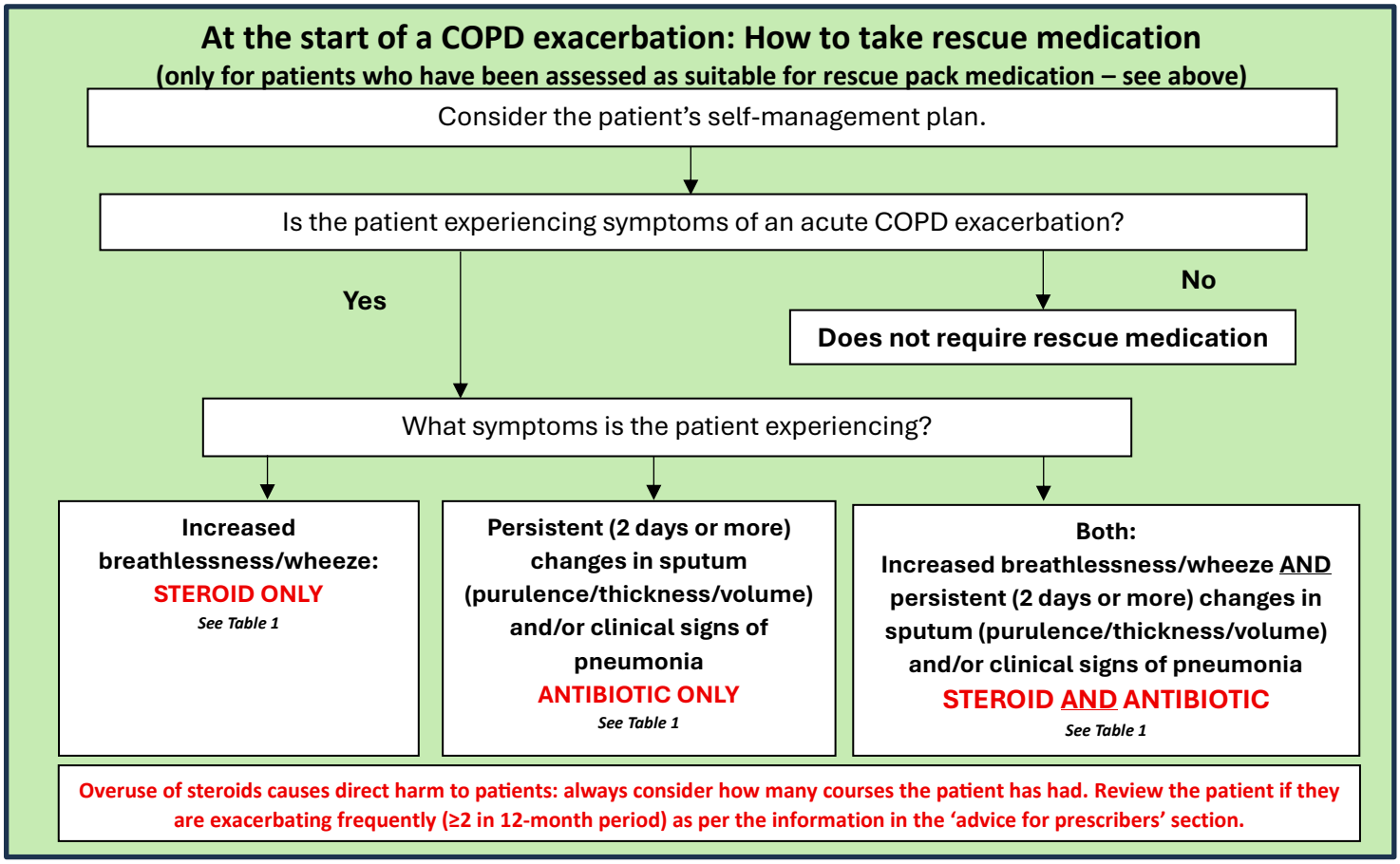
Patients experience exacerbations differently, but an individual is likely to have the same symptoms each time.

Patients may need **steroid or antibiotic** during an exacerbation, but **not necessarily both**.

There must be a robust practice policy in place to ensure that packs are not (re-)issued without review. Rescue packs should be prescribed as an **acute item and NOT on repeat**, to ensure patients having frequent exacerbations (≥2 in 12 month period) are reviewed.

Checklist for patient suitability for COPD Exacerbation Rescue Medication Pack

- Two or more COPD exacerbations (or one exacerbation requiring hospital admission)
- Face to face education, including an updated COPD self-management plan (see 'Advice for patients' below) so that the patient:
  - Confidently understands when and how to use rescue medication.
  - Notifies the practice when they start the rescue pack and request replacement supplies.



After rescue medication is started

- Patients can request a further supply of rescue medicines for possible future exacerbations
- A sputum sample will be requested if there are two or more exacerbations (prescription requests) in 12 months

Labelling of rescue medication

- The indication will be added to the dosing instructions as a reminder e.g. 'To be taken in the event of a COPD exacerbation'.
- Patients should check expiry dates on packs if infrequently used. Do not use any medication past it's expiry

Table 1: Antibiotic and Steroid Prescribing Options in Acute Exacerbations of COPD

Antibiotic[1]	Dosage	Duration
First line options:		
Amoxicillin **OR**	**Adult:** 500mg three times a day.	5 days
Doxycycline[2]	**Adult:** 200mg first day then 100mg once daily.	5 days
In penicillin allergy and/or doxycycline contraindicated:		
Clarithromycin[3]	**Adult:** 500mg twice a day.	5 days
Second line: Use alternative first line (from a different class). **Alternative choice** (if person at high risk of treatment failure, guided by susceptibilities when possible): See Nottinghamshire APC Antimicrobial Guidelines - Acute Exacerbation of COPD for guidance on alternative antibiotic choices but note that these should be prescribed on an individual case by case basis and not issued repeatedly without review. Note some patients may require longer courses, particularly in bronchiectasis.		
Steroid[1]	**Dosage**	**Duration**
Prednisolone (Use plain prednisolone as more cost effective and no evidence of any benefit from enteric coated.)	30mg (6 x 5mg) once daily[4]	5 days
If symptoms have not resolved, the patient should be reviewed prior to prescribing further prednisolone. Consider the need to supply Steroid Treatment card and/or Steroid Emergency Card and the risk of adrenal suppression with repeated exposure to steroids and if a weaning course of steroids is required following acute course(s) to minimise this risk.		

[1] See BNF and BNFC for appropriate use and dosing in specific populations, e.g., hepatic, or renal impairment, pregnancy, and breastfeeding.
[2] Doxycycline is not suitable for pregnant women.
[3] Withhold statins whilst on clarithromycin course.
[4] Dose preferably taken in the morning after breakfast

Advice for patients

All information on this guidance can be shared with patients and patients can be referred to this online document on the APC website. Key advice and information for patients is likely to include:

- The aim is to manage COPD so that there are few if any exacerbations, this is best done with an agreed self-management plan
- Exacerbations usually result in a step change decline in lung function
- An exacerbation prompts consideration of a review See Advice for prescribers and Advice for practices below
- Patients must contact their GP surgery or COPD specialist nurse when starting their exacerbation rescue packs
- Patients should contact a healthcare professional if their symptoms do not improve or get worse after starting the rescue medication
- Patients may need antibiotics **OR** steroids, but **not necessarily both**.
- Two (or more) exacerbations within 12 months; referral to secondary care specialist will be considered
- Frequent courses of oral steroids risk the side effects which include skin damage, muscle damage, diabetes, cataracts and osteoporosis. The COPD population is especially susceptible to these complications.

Advice for prescribers

Things to consider if patient is exacerbating frequently (≥2 in 12 month period) or if patient is not responding well to treatment of exacerbations:

- Are exacerbation rescue packs being used appropriately and **is self-management still appropriate?**
- **Are they true exacerbations?**
- Re-assess for co-morbidity, treatment adherence and inhaler technique. Reiterate the need to reduce cigarette usage in smokers with the aim of stopping. If the patient is a smoker, refer to the smoking cessation service.
- Consider referral or re-referral to pulmonary rehabilitation.
- Consider bronchiectasis and check sputum for unusual organisms (including AFB).
- Consider chest X-Ray, bloods tests and investigations to exclude malignancy.
- **Review regular medication and optimise inhaler therapy** (See Nottinghamshire COPD Guidelines). Always check technique and compliance. Any change to inhaler regime, should be started at a period of clinical stability i.e., at least 4 weeks after exacerbation and response should be monitored. Document reason for change in medication.
- **Consider fracture risk and bone densitometry:** ≥3 courses of oral prednisolone in 12 months is a trigger to consider the need for bone protection. However, note that some patients who have fewer than 3 courses may also be at risk if other risk factors are present.
- Consider whether a **one-off** longer course of prednisolone is required (e.g., 10-14 days) and whether +/- weaning down to 0mg, rather than stopping abruptly, would be beneficial.
- Is the patient able to use airway clearance techniques?
- If the patient is prescribed a prophylactic macrolide (e.g. azithromycin) under the initiation and guidance of a specialist respiratory physician, consider the appropriateness of this if patient is still having ongoing exacerbations.
- Consider referral to secondary care for a COPD specialist review. **Patients may be eligible for COPD biologics if blood eosinophils ≥0.3 × 10^9/L** in-line with NICE TAs.

Advice for practices

Follow up and re-issue of exacerbation rescue packs:

- **The GP practice should have a process in place for supply, monitoring and review of exacerbation rescue medication.** Reviews should occur regularly and at least at every annual review. This should be reflected in the GP practice prescribing policy. See Repeat Prescribing Guide for GP Practices for further information.
- A request for a supply of an exacerbation rescue pack should prompt a review/discussion with the patient if the practice wasn't notified of the previous course being taken.
- **A sputum sample must be requested from patients with frequent exacerbations** (≥2 in 12 month period) **or prescription requests.**
- Exacerbation rescue packs are **not recommended on repeat prescription**
- There must be a robust practice policy in place to ensure that packs are not (re-)issued without review.

Read codes to use on clinical systems:

  - Advanced supply of antibiotic medication – XaR21
  - Advanced supply of steroid medication – XaR16

Other

- Nebulised therapy should only be used in patients under the initiation and guidance of a specialist respiratory physician.
- Primary care support tool - How to manage and review adults on long term and repeated antibiotics for the prevention and treatment of COPD exacerbations. TARGET How to ……?

References:

Antibiotics: NICE NG 114 COPD (acute exacerbations) December 2018
Steroids: NICE NG115 COPD in over 16s: diagnosis and management July 2019
COPD biologics: NICE TA 1142 Dupilumab...COPD with raised blood eosinophils