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PSNC Briefing 049/17: COPD rescue packs toolkit

This toolkit has been developed to support the implementation of a chronic obstructive pulmonary disease (COPD) rescue pack service within community pharmacy. Local commissioners can use this as a resource when considering commissioning such a service from community pharmacies.

Introduction

In England, GP figures show that more than 1 million people are living with COPD.¹ COPD led to over 123,000 emergency hospital admissions in 2014 and 2015² and it accounts for one in eight hospital admissions, 1 million bed days and costs £870-£930 million a year.³ However, there is robust evidence that many admissions are avoidable⁴ and that early treatment of exacerbations with steroids reduces severity and may reduce the need for hospital admission.⁵ Readmissions are also a significant problem in COPD; of all emergency readmissions to hospital, COPD is the fifth most common cause nationally.⁴

What is an exacerbation?

An exacerbation (flare-up) is a sustained worsening of a person's symptoms from their usual stable state and which is beyond usual day-to-day variations and acute in onset. Commonly reported symptoms are:

- worsening breathlessness;
- cough;
- increased sputum production; and
- change in sputum colour.⁶

NICE guidelines on COPD

The National Institute for Health and Care Excellence (NICE) guideline for COPD in over 16s states that the impact of exacerbations should be minimised by:

- giving self-management advice on responding promptly to the symptom of an exacerbation;
- starting appropriate treatment of oral steroids and/or antibiotics;
- use of non-invasive ventilation when indicated; and

¹ NHS Digital. [QOF 2015-16: Prevalence, achievements and exceptions at region and national level \(October 2016\)](#)

² NHS Digital. [Hospital episode statistics, admitted patient care, England – 2014-15 \(November 2015\)](#)

³ National Institute for Health and Clinical Excellence. [Chronic Obstructive Pulmonary Disease \(Update\). Clinical guideline 101 \(June 2010\)](#)

⁴ Department of Health. [An Outcomes Strategy for COPD and Asthma: NHS Companion Document. \(May 2012\)](#)

⁵ Wilkinson T, Donaldson GC, Hurst JR, et al. [Early therapy improves outcomes of exacerbations of chronic obstructive pulmonary disease. Am J Respir Crit Care Med \(June 2004\) 169:1298e303](#)

⁶ National Institute for Health and Clinical Excellence. [Chronic obstructive pulmonary disease in adults. Quality Standard 10, \(July 2011, updated February 2016\)](#)

- use of hospital-at-home or assisted-discharge schemes.⁷

Patients should be encouraged to respond promptly to the symptoms of an exacerbation by:

- starting oral corticosteroid therapy if their increased breathlessness interferes with activities of daily living (unless contraindicated);
- starting antibiotic therapy if their sputum is purulent; and
- adjusting their bronchodilator therapy to control their symptoms.⁷

People who have had an exacerbation of COPD should be provided with individualised written advice on early recognition of future exacerbations, management strategies (including appropriate provision of antibiotics and corticosteroids for self-treatment at home) and a named contact (this is no longer considered a national priority for improvement, but may still be useful at a local level).⁷ This reflects good evidence that prompt therapy in exacerbations results in less lung damage, faster recovery and fewer admissions (and subsequent readmissions) to hospital.⁴

What is in a COPD rescue pack?

A COPD rescue pack is part of a self-management plan to enable patients to manage deterioration in symptoms (onset of exacerbation) promptly and reduce their risk of hospital admission. A COPD rescue pack normally comprises of an oral corticosteroid and antibiotic for the patient to keep at home. Written information is normally provided with the medicines instructing the patient when and how to use the medicines and to contact a healthcare professional if their symptoms do not improve.

Corticosteroid

Patients requiring corticosteroid therapy should be encouraged to start taking these early to get maximum benefits. Prednisolone 30mg orally should be prescribed for 7 to 14 days. It is recommended that a course of corticosteroid treatment should not be longer than 14 days as there is no advantage in prolonged therapy.

Antibiotics

Antibiotics should be used to treat exacerbations of COPD associated with a history of more purulent sputum. Patients with exacerbations without more purulent sputum do not need antibiotic therapy unless there is consolidation on a chest x-ray or clinical signs of pneumonia.

Amoxicillin 500 mg three times daily for 5 days should be prescribed, *or* if there is a true allergy to amoxicillin; Doxycycline 200 mg on the first day then 100 mg once daily, for a total of 5 days.

If Amoxicillin and Doxycycline are contra-indicated, Clarithromycin 500 mg twice daily for 5 days should be prescribed.

If the person has an increased risk of antibiotic resistance (co-morbid disease, severe chronic COPD, frequent exacerbations, or antibiotic use in the past 3 months), Co-amoxiclav 500/125 mg three times daily for 5 days should be prescribed.⁸

NICE recommends the above antibiotics, but this may vary according to local Primary Care Antimicrobial Guidelines.

⁷ [National Institute for Health and Clinical Excellence. Chronic obstructive pulmonary disease in over 16s: diagnosis and management. Clinical Guideline 101. \(June 2010\)](#)

⁸ [National Institute for Health and Clinical Excellence. Clinical Knowledge Summaries \(September 2015\)](#)

Who should be provided with a COPD rescue pack?

Patients who have had an exacerbation should be considered for a COPD rescue pack but it is acknowledged that not all patients will be eligible or appropriate for the provision of a COPD rescue pack for self-treatment at home⁶ and in addition, NICE advises that the appropriate use of these medications should be monitored.⁷

The role of community pharmacy

Community pharmacies are well placed to support patients with COPD to self-manage their condition, as they can identify at risk patients and provide a wide range of services appropriate to the patient's needs, including targeted Medicines Use Reviews (MURs), smoking cessation, flu vaccination and inhaler technique advice. In addition to this support, that can be provided by most pharmacies, community pharmacies could also be commissioned to supply rescue packs to appropriate patients in line with NICE guidance.

In 2011, the [Community Pharmacy Future project](#) was undertaken through a collaboration of Boots UK, Lloydspharmacy, Rowlands Pharmacy and Well, which studied and evaluated the effect of a community pharmacy-based COPD service on patient outcomes. The [independent evaluation of the project](#) reported significant improvements in patient reported adherence, utilisation of rescue packs, quality of life and a reduction in routine GP visits. The intervention cost was estimated to be off-set by reductions in the use of other NHS services (GP and accident and emergency visits and hospital admissions).

NHS Forth Valley in Scotland currently commissions a [COPD service](#) which is now part of a minor ailment service. The service aims to increase access for patients with an exacerbation of their COPD to medication related advice and patient centred medicine review through community pharmacies. The service also provides rescue antibiotics and prednisolone to patients with hand held COPD record cards. A rescue pack is provided under a locally agreed Patient Group Direction (PGD) for Amoxicillin, Clarithromycin and Prednisolone.

Patients need a COPD record card to be eligible for the service and this needs to be provided by their GP (the card shows that the GP is happy for the patient to use the service).

Both these examples highlight the opportunity to commission a community pharmacy service to increase the number of COPD patients who have appropriate access to rescue medication; this toolkit will support commissioners to implement such a service.

The toolkit

The toolkit includes the following template documents:

1. Implementation plan;
2. Sign-up sheet;
3. Service agreement and specification;
4. Record form;
5. Patient information leaflet;
6. GP notification form.

The above template documents can be found at: psnc.org.uk/COPD

If you have any queries on this PSNC Briefing or you require more information, please contact [Zainab Al-Kharsan, Service Development Pharmacist](#).