



module 249

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Welcome to the two hundred and forty ninth module in the *Pharmacy Magazine* Continuing Professional Development Programme, which looks at **supporting patients with COPD**.

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for this module

GOAL

To provide an update on how community pharmacists can contribute to improving patient care in COPD.

OBJECTIVES:

After completing this module you should be able to:

- Identify patients at risk of suffering with COPD
- Appreciate the pathology of COPD
- Help optimise the use of medicines and address key lifestyle issues in COPD through additional pharmacy services.

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Supporting patients with COPD

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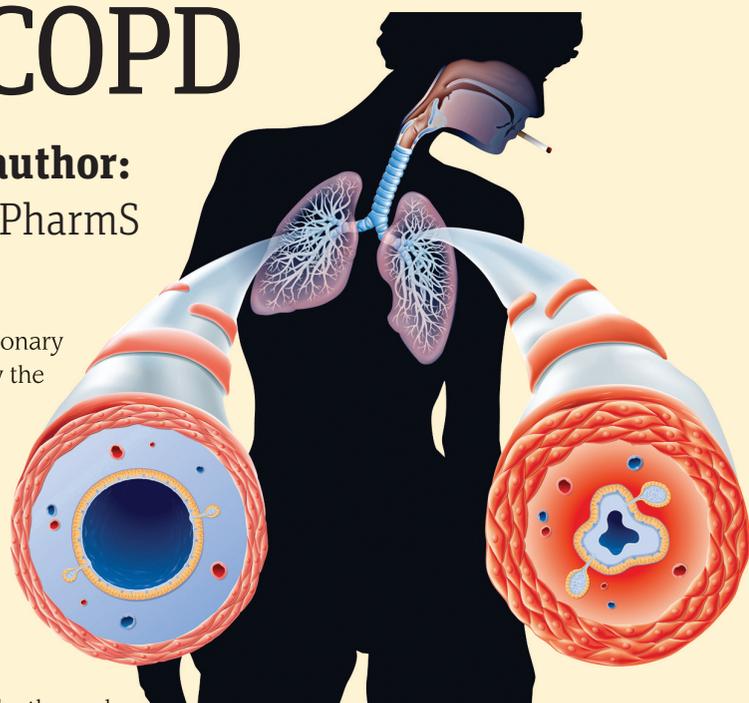
Introduction

Chronic obstructive pulmonary disease (COPD), currently the fifth leading cause of death, is set to become the third by 2030. Over 3 million people are estimated to have the disease (equivalent to 13 per cent of the population of England aged 35 years and over), resulting in over 25,000 deaths each year.¹ Of the 3 million, 2 million are undiagnosed, says the British Lung Foundation.

COPD is estimated to cost the NHS £982m each year, most of it accounted for by hospital admissions and drug costs. Without changes to patient care these costs will only grow. One in eight emergency admissions to hospital is for COPD, making it the second largest cause of emergency admissions in the UK and one of the most costly in-patient conditions treated by the NHS. The average in-patient admission

costs £1,960 and the average length of stay is 8.7 days, with 31 per cent of patients re-admitted within 30 days.²

Mortality outcomes vary hugely between hospitals. A NICE guidance document for COPD puts this at between 9-21 per cent of admissions.³ Despite these figures, however, the majority of treatment for COPD takes place within primary care through the management of exacerbations, chronic disease reviews and the management of co-morbidities. The average pharmacy will see approximately 60 patients with COPD.



What is the FEV₁/FVC ratio?

FEV₁/FVC is the ratio of FEV₁ (the volume of air that can forcibly be blown out in one second after full inspiration) and FVC (the volume of air that can forcibly be blown out after full inspiration). The measurements are evaluated by comparing the results with reference values based on age, sex and race.

COPD national guidance

Guidelines for the treatment of COPD are produced by NICE in the UK, and by GOLD, an international committee of experts. The main difference between the two guidelines is that GOLD uses the underlying phenotypes of COPD to group recommended treatments that can be used by clinicians. COPD is characterised by the presence of airflow obstruction (defined as a FEV₁/FVC ratio of < 0.7) due to chronic bronchitis or emphysema. The obstruction is usually slowly progressive and is predominantly caused by smoking.

Diagnosis

COPD should be considered in any patient who has dyspnoea (difficulty in breathing), chronic cough or sputum production, and/or a history of exposure to COPD risk factors (usually cigarette smoking). The GOLD guidance says that spirometry is required to make the diagnosis. A FEV₁/FVC < 0.7 post-administration of a short-acting bronchodilator confirms the presence of persistent airflow limitation and COPD.⁴

The diagnosis of COPD must include a history of smoking and/or exposure to risk factors such as pollutants or occupational dusts. About 50 per cent of smokers will develop COPD, as defined according to the GOLD guidelines. COPD sufferers tend to be elderly and are likely to have multiple chronic health conditions, which can complicate diagnosis. Often diagnosis tends to occur at a late stage in the disease process, limiting the opportunity to prevent deterioration.

A diagnosis of COPD should be considered in a patient aged 35 years and over who has a risk factor (e.g. smoking, occupation) and presents with one or more of the following:

- Exertional breathlessness
- Chronic cough/chronic bronchitis (cough or sputum production for at least three months in two consecutive years)

- Regular sputum production
 - Frequent winter 'bronchitis'
 - Wheeze.
- ... and does not have clinical features of asthma:
- Chronic unproductive cough
 - Significantly variable breathlessness
 - Night-time waking with breathlessness and/or wheeze
 - Significant diurnal or day-to-day variability of symptoms.

Disease severity and staging

Spirometry is used to assess the severity of airflow obstruction but, when used alone, it is a poor indicator of disability from COPD, so should be used with other patient-focused assessments.

The Medical Research Council (MRC) dyspnoea score (Table 2) is simple to administer and correlates well with other breathlessness scales, with exercise capacity a good predictor of outcomes in COPD. The COPD Assessment Test (CAT) is more comprehensive including exercise capacity, body mass index, the frequency of exacerbations and health status.

Pathology of COPD

In COPD harmful inhalants such as smoke instigate an inflammatory response, which then causes tissue destruction that leads to the narrowing of the airways.

There are many distinct disease processes that lead to the final outcome of deteriorating lung function with COPD. The distinctive processes allow classification of COPD disease sub-phenotypes, such as α 1-antitrypsin deficiency, chronic bronchitis, emphysema and small airways disease.

The phenotype categories allow grouping of patients with similar presentations within the heterogeneity of the disease. It is hoped this will allow care to be tailored to individual patients in terms of symptom control, disease progression, health status and quality of life.

COPD and co-existing disease

It is possible for asthma and COPD to occur together, and asthma may be a risk factor for the development of COPD. Adults who have asthma have a 12-fold higher risk of developing COPD.⁵ Approximately 10 per cent of people with COPD

Reflection exercise 1

What questions do you ask patients who present with a cough? What red flags are staff looking for that would lead to a referral to the pharmacist?

also have co-existent asthma, and this will change the treatment approach used.

Patients who suffer from COPD are more likely to suffer from other diseases such as cardiovascular disease, depression and type 2 diabetes.

Treatment

The aim of treating stable COPD is to reduce symptoms and the frequency and severity of exacerbations, and improve exercise tolerance and quality of life. However, it should be understood that while COPD is treatable, it is not curable.

Adherence to medication

Studies have indicated that 60 per cent of patients with COPD do not adhere to prescribed therapy⁶, leading to reduced symptom control, increased exacerbations, increased mortality and reduced quality of life. Poor inhaler technique will affect the patient negatively in similar ways, reducing symptom control and quality of life, and increasing exacerbations, unscheduled hospital visits and mortality.

Educational interventions with behavioural support through continued patient contact over several weeks or months are effective for improving adherence in several chronic diseases⁷. Inhaler technique can be improved by one-to-one training, providing written information on inhaler use, and ongoing support with technique assessment and advice. Pharmacists are well

Table 1: 2010 NICE guidelines grading the severity of airflow obstruction

Severity	FEV ₁ per cent predicted
Stage 1: mild	≥ 80*
Stage 2: moderate	50 - 79
Stage 3: severe	30 - 49
Stage 4: very severe	< 30*
* Symptoms should be present to diagnose COPD in people with mild airflow obstruction	† or FEV ₁ < 50 per cent with respiratory failure

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Table 2: Medical Research Council breathlessness (dyspnoea) score

Grade	Degree of breathlessness related to activities	Severity/patient symptom awareness
1	Not troubled by breathlessness except on strenuous exercise	Mild: Patient may not be aware their lung function is abnormal
2	Short of breath when hurrying or walking up a slight hill	Moderate: Symptoms usually progress at this stage, with shortness of breath developing on exertion
3	Walks slower than contemporaries on level ground because of breathless or has to stop for breath when walking at own pace	Moderate: as above
4	Stops for breath after walking about 100m or after a few minutes on level ground	Severe: Shortness of breath typically worsens at this stage and limits daily activities. Exacerbations are common and patients more at risk of emergency hospitalisation
5	Too breathless to leave the house or breathless when dressing or undressing	Very severe: Quality of life is appreciably impaired and exacerbations may be life threatening. At high risk of emergency hospitalisation

placed to provide this patient-centred advice and support to improve adherence through MURs and the new medicine service.

Oral therapy

- Only use oral corticosteroids in advanced COPD and use as low a dose as possible because of increased side-effect risks
- Only use theophylline after a trial of short- and long-acting bronchodilators or if the patient is unable to use inhaled therapy (as theophylline is less well tolerated and less effective)
- Consider mucolytic therapy if chronic cough is productive of viscous sputum.

Antibiotics

Long-term prophylactic antibiotics are rarely used to treat people with COPD but recent evidence suggests they may have a role in a small group of patients. Antibiotics are commonly used as rescue treatment for exacerbations (see Exacerbations section).

Oxygen

Long-term oxygen therapy (LTOT) of over 15 hours per day has been shown to increase survival in patients with severe resting hypoxia. LTOT is indicated for the management of confirmed chronic hypoxaemia and should only

be provided after appropriate assessment. There is no evidence to support short-burst oxygen therapy (SBOT), which should not be used except in palliative care in the presence of hypoxia.

Non-pharmacological management

Stopping smoking is the single most important intervention that can be made, regardless of disease severity. No licensed medicines for COPD have evidence to improve the long-term decline in lung function. However, on average, each smoker who manages to stay off tobacco for the rest of his/her life gains 3.6 years.

Smoking cessation interventions are four times more effective if they include counselling support and can achieve long-term quit rates of up to 25 per cent.

Pulmonary rehabilitation

Pulmonary rehabilitation is defined by NICE as "...a multidisciplinary programme of care for patients with chronic respiratory impairment that is individually tailored and designed to optimise the individual's physical and social performance and autonomy."

A suitable programme is important to break the cycle of worsening breathlessness, reduced physical activity and de-conditioning that many patients experience. Early interventions after an acute exacerbation of COPD can produce clinically significant improvements in exercise capacity, strength of muscles, survival, and health and wellbeing. Pulmonary rehabilitation has been shown to reduce the three-month readmission rate for COPD from 33 to 7 per cent.⁸

After pulmonary rehabilitation patients should be able to handle breathlessness better, feel more in control of their condition and gain in self-confidence.

Most hospital chest clinics run programmes that usually last between six and 12 weeks. The British Lung Foundation can provide details of the nearest class. After the hospital programme has ended, a COPD patient may be referred to a local leisure centre to continue a fitness programme.

Immunisation

Many exacerbations of COPD are caused by viral and bacterial infections. Unless contraindicated, all COPD patients should have pneumococcal and annual seasonal influenza immunisation. Both are very effective interventions, preventing flu in around 50-60 per cent of patients and pneumococcal bacteraemia in 50-70 per cent. People with COPD are a good at-risk patient group to target with the community pharmacy influenza vaccination service.

Table 3: Clinical differences between COPD and asthma

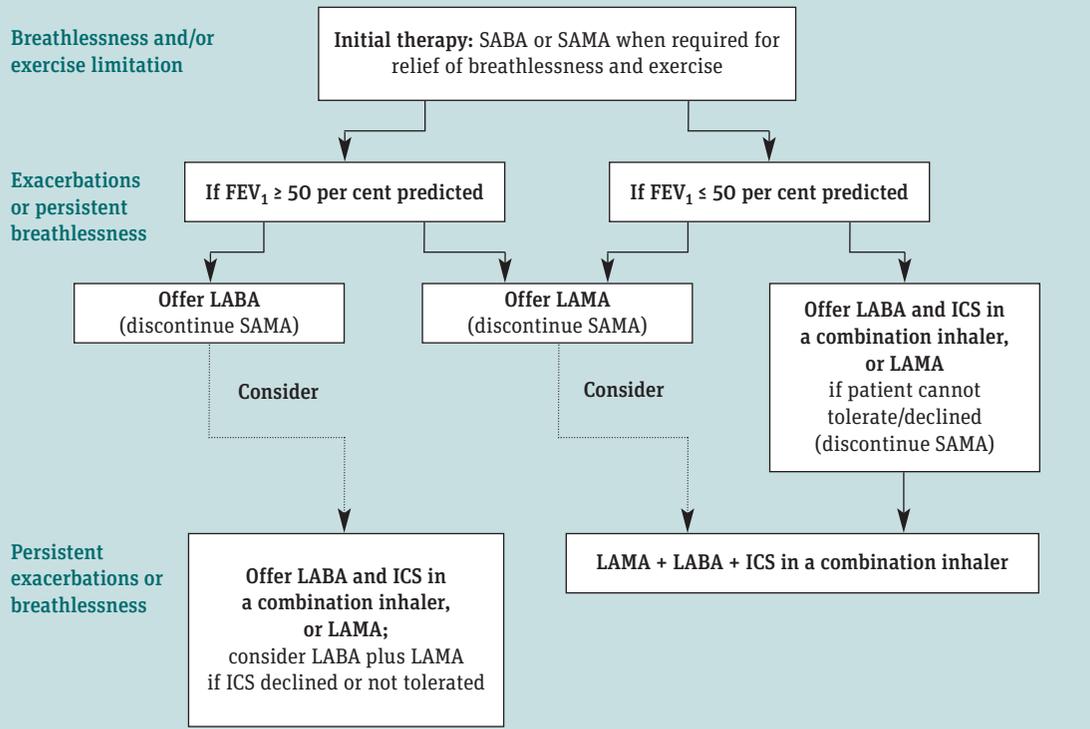
	COPD	Asthma
Smoker or ex-smoker	Nearly all	Possibly
Symptoms under 35 years of age	Rare	Often
Chronic productive cough	Common	Uncommon
Breathlessness	Persistent and progressive	Variable
Night-time waking with breathlessness and/or wheeze	Uncommon	Common
Significant diurnal or day-to-day variability of symptoms	Uncommon	Common



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Table 4: Summary of NICE COPD guidelines for the management of breathlessness and exercise limitation with effective inhaled therapy



Overview of medicines (see also consultation brief):
Bronchodilators: SABA (e.g. salbutamol); SAMA (e.g. ipratropium); LABA (e.g. salmeterol, formoterol); LAMA (e.g. tiotropium, aclidinium, glycopyrronium). ICS used in combination with LABA (e.g. budesonide, fluticasone)

Exacerbations

An exacerbation is a sustained worsening of a patient's symptoms for three days or more beyond normal day-to-day variations and is acute in onset.

Commonly reported symptoms are worsening breathlessness, cough, increased sputum volume and a change in sputum colour, and a tightening of the chest. The change in these symptoms often necessitates a change in medication.

Patients with severe COPD (GOLD category III) have an annual exacerbation frequency of 3.43 per year compared with 2.68 per year in those with moderate COPD (GOLD II).

An exacerbation may also include:

- Upper airway symptoms (e.g. colds and sore throats), increased wheeze or chest tightness
- Reduced exercise tolerance, increased fatigue
- Fluid retention, ankle swelling
- Acute confusion.

Management of exacerbations

In an exacerbation the earlier treatment is started, the better, as the event can accelerate the rate of lung function decline. With many COPD exacerbations caused by bacterial or viral respiratory tract infections, the recommended steps for management of exacerbations are:

1. Maximal bronchodilator therapy
2. Oral steroids (40mg prednisolone daily for five to seven days) if symptoms persist despite adequate bronchodilators (GOLD 2016)
3. Antibiotics if sputum goes yellow/green or changes in viscosity (antibiotics reduce short-term mortality by 77 per cent).⁴

It is important that patients who are at risk of having an exacerbation are encouraged to respond quickly to the symptoms by following these pharmacological recommendations.

Reflection exercise 2

Download a copy of the GOLD Pocket Guide to COPD Diagnosis, Management and Prevention – 2016 (goldcopd.org/pocket-guide-copd-diagnosis-management-prevention-2016). Spend some time understanding the treatment approach recommended and identify the differences to the NICE 2010 guidance. How would you use both sets of guidance to help you manage your patients' medication effectively?

Rescue packs which contain a course of antibiotics and corticosteroid tablets may be kept at home and used by the patient when he/she suffers an exacerbation.

Future commissioning for COPD

In July 2011 the Outcomes Strategy for COPD and Asthma was published. This document set out the high level vision for all parts of the care system, from NHS and public health to social care and the voluntary sectors. The strategy indicated the Government's commitment to improving services for all people with respiratory disease.

A year later the NHS companion document was published to support the COPD vision of care within the new NHS landscape. This stated the reasons why the NHS needed to act to improve quality and outcomes for people with COPD:

- Death rates from COPD are almost double the European average
- Fifteen per cent of people admitted to hospital with COPD die within three months, and around 25 per cent die within a year of admission
- COPD is the second commonest cause of emergency admissions to hospital and one of the most costly in-patient conditions to be treated by the NHS
- There is a four-fold variation in non-elective admission rates across England.

The document goes on to describe what the NHS can do to improve outcomes for COPD. It lists the actions that can be undertaken to improve care in five domains. Table 5 summarises the domains contained in the Outcomes document most relevant to community pharmacists.

Table 5: NHS domains of COPD care improvement

Domain 1: Preventing people from dying prematurely

- Diagnosing earlier and accurately, as there are over 2.1 million people living with undiagnosed COPD
- The prevention of progression by quickly treating exacerbations and providing key interventions such as stop smoking support

Domain 2: Enhancing the quality of life of COPD patients

- The promotion of physical activity and provision of pulmonary rehabilitation
- Optimising medicines and ensuring inhaler technique. Studies suggest that the majority of patients don't use their inhalers correctly, so regular checking, the teaching of techniques and investigation of concordance should be completed at each consultation by health professionals

Domain 3: Helping people recover from episodes of ill health

- Providing the right care to patients on admission to hospital and supporting discharge to reduce re-admissions from a third of patients within 30 days

The community pharmacy contractual framework in England offers scope to identify patients with undiagnosed COPD, help to tackle the risk factors for COPD, and to support patients to self-manage their condition.

The Pharmacy Futures project

The Pharmacy Futures project included a COPD case-finder service and a COPD support service. The aim of the project was to design pharmacy services that give patients the practical support they need to get the best outcomes from their medicines⁹.

The COPD support service involved supporting patients to recognise symptoms of exacerbations, stop smoking, and improve their adherence to medicines. The study recruited over 300 patients and the results showed a significant improvement in quality of life and COPD (CAT) assessment scores, an improvement in patient reported outcome measures, and a reduction in NHS costs. The authors believed that the study showed that the COPD support service could provide positive patient outcomes.

Essential services

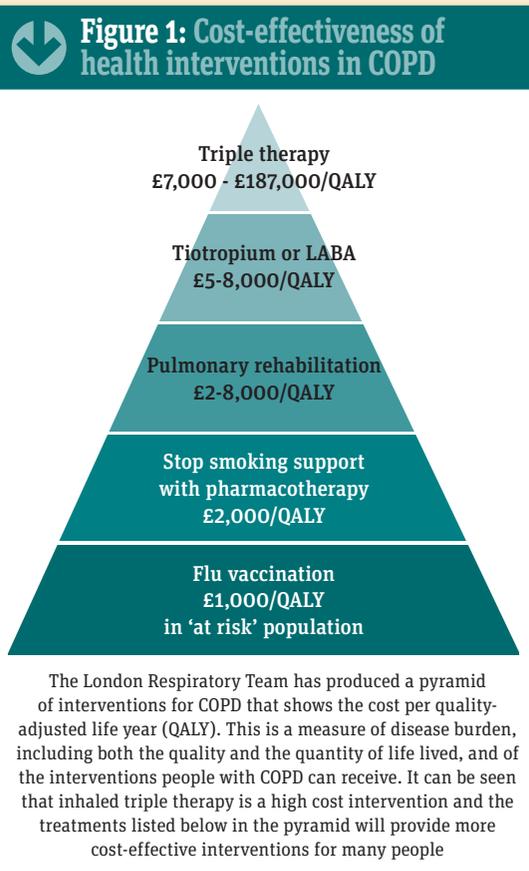
Dispensing

With the new LABA and LAMA inhalers there are now a large number of inhalers that COPD patients can be prescribed, each requiring a different technique. When a patient receives a new inhaler, the pharmacist should demonstrate how to use it, and offer the opportunity to utilise the new medicine service (NMS).

For those COPD patients who are able to manage exacerbations at home, it could be suggested to the patient's GP that short courses of antibiotics and oral steroids are added to repeat prescriptions. This would help patients respond quickly to the onset of an exacerbation and reduce unnecessary hospital admissions (see Domain 1).

Public health

In the North East, the 'Every Breath' campaign (launched in November 2011) aimed to raise public awareness of COPD in order to help identify people who are undiagnosed and



promote the link between COPD and smoking (see Domain 1).

Pharmacists can help support health promotions such as these, either on an individual basis or as part of a locally directed public health campaign (e.g. by raising awareness of lung health). Prescription linked interventions can be made for those patients presenting prescriptions for COPD medicines, particularly if they are asking for regular OTC cough preparations or are smokers. Leaflets are readily accessible from the British Thoracic Society and British Lung Foundation.

Regardless of whether your pharmacy provides smoking cessation support, make sure you also have the necessary information about local stop smoking services for signposting patients appropriately.

COPD patients who smoke should be made aware that stopping smoking is much more effective than drug therapy at reducing the rate of FEV₁ decline. Figure 2 (overleaf) is a powerful tool to use with patients as it demonstrates the impact on FEV₁ of stopping smoking.

E-cigarettes (vaping)

There are an estimated 2.8m adults in the UK who currently use electronic cigarettes. Opinions on vaping (e-cigarette use) vary but proponents have claimed that it could be a major public health breakthrough that could significantly reduce smoking prevalence.

Public Health England released an expert independent review of the evidence on e-cigarette use in August 2015. The review stated that e-cigarettes were around 95 per cent less harmful than smoking, and that it was likely that e-cigarettes were contributing to a reduction in smoking rates.

Professor Kevin Fenton, director of health and wellbeing at Public Health England, stated that: "Local stop smoking services should look to support e-cigarette users in their journey to quitting completely".

The Royal Pharmaceutical Society has been more cautious in its policy statement. This says that, "while e-cigarettes could have a role in harm reduction and to support smoking cessation in the short term, more high quality peer reviewed studies on safety and efficacy should be completed in order to provide health professionals with evidence-based assurance".

Signposting

If not already provided by local commissioning groups, hospitals or GP practices, it would be useful for pharmacies to hold information about local pulmonary rehabilitation programmes, chest or respiratory clinics, organisations like the British Lung Foundation, and other local COPD care services (including stop smoking providers).

Clinical governance

It is important to ensure that COPD patients understand all aspects of their medication as well as any advice or information you or members of your pharmacy team have given them. A requirement of the contractual framework is that contractors undertake one pharmacy-based audit each year. One possibility could be to audit stop smoking brief interventions for COPD patients.

The RPS has an excellent range of audit tools that could be applied to COPD (rpharms.com/home/home.asp).



Reflection exercise 3

Where can you signpost patients to take part in a pulmonary rehabilitation course?

- Contact your clinical commissioning group to get information on local pulmonary rehabilitation courses
- Find out if there is a patient information leaflet that can be printed and given to patients.



Advanced services

The NHS's Outcomes Strategy for COPD and Asthma document specifically mentions community pharmacy advanced services. The document explains how the new medicine service and targeted MURs can be used to help improve outcomes for COPD patients.

Targeted MURs

From April 2015, community pharmacists have had to carry out at least 70 per cent of their MURs in one or more of the specified target groups. Respiratory medicines are one of the four contractual target groups, while patients recently discharged from hospital is another such group.

A MUR provides an ideal opportunity for community pharmacists to help patients understand why inhalers are used in COPD and to check/teach inhaler technique. Improving a patient's inhaler technique will help him/her better self-manage their condition to relieve symptoms, aid exercise tolerance and prevent complications (see Domain 2).

Patient recruitment

COPD patients who may particularly benefit from a MUR include those:

- Recently discharged from hospital. (A third of patients discharged from hospital with COPD are at risk of being re-admitted within 30 days)
- Referred by another healthcare professional
- Over-using inhalers, in particular "relievers", and under-using "preventers"
- Recently dispensed medicines to treat an exacerbation (antibiotics and oral steroids)
- Changing formulations/inhaler types
- Returning unopened inhalers.

This can be linked to smoking cessation advice provided from the pharmacy.

The new medicine service

The NMS was commissioned under the NHS's quality, innovation, productivity and prevention (QIPP) agenda to help improve compliance to anticoagulant, antihypertensive and respiratory medicines. A Nottingham University evaluation showed that NMS interventions raised the reported level of patient adherence from 60.5 to 70.7 per cent.¹⁰

The NMS is intended to help COPD patients understand the benefits of taking their new

Signposting

- **British Lung Foundation:** lunguk.org/copd.asp or 020 7688 5555 (Patient helpline 0845 850 5020)
- **British Thoracic Society:** brit-thoracic.org.uk
- **Respiratory Education UK:** respiratoryeduc.com
- **Patient UK (for leaflets):** patient.co.uk

medicine and to reinforce that the pharmacist is able to help support him/her if any side-effects occur. The service also includes the provision of lifestyle interventions, such as brief advice on stopping smoking or promoting exercise.

NMS patients are not normally eligible for a MUR for a period of six months unless, in the reasonable opinion of the pharmacist, the patient would benefit from a MUR during that period (e.g. if the patient was discharged from hospital within six months).

Practical consultation hints and tips for the NMS/MURs

- Checking and teaching good inhaler technique when required is very important. Pharmacists can use the InCheck device to check the patient's inhalation technique
- Compliance: does this match the PMR record?
- Is the patient experiencing any side-effects?
- Find out smoking status and offer appropriate advice within the pharmacy or signpost to a local NHS service. All patients who smoke should be offered support to stop
- Does the patient know how to tell if the inhaler is nearly empty?
- Help the patient understand the chronic and progressive nature of COPD
- Advise patients on signs of an exacerbation: worsening breathlessness, cough and increased sputum volume and change in sputum colour, tightening of the chest
- If the patient has rescue medication, ensure they know to use it as soon as they recognise the symptoms of an exacerbation

- Generic prescribing can lead to a choice of devices, so it is important to know what inhaler type your patient requires and also to mark it on the PMR
- Theophylline medicines are not bio-equivalent – the patient requires a consistent brand
- Many COPD patients suffer from anxiety and depression. They may benefit from referral to their GP (if you have concerns about their wellbeing) or from participation in (e.g.) an expert patient programme
- Make sure the patient understands the signs of an exacerbation and how to manage it
- Ask the patient during the flu season if they have received an influenza vaccine. Reinforce the benefits of vaccination
- Patients on long-term oral steroids or high dose inhaled steroids should be given a steroid warning card.

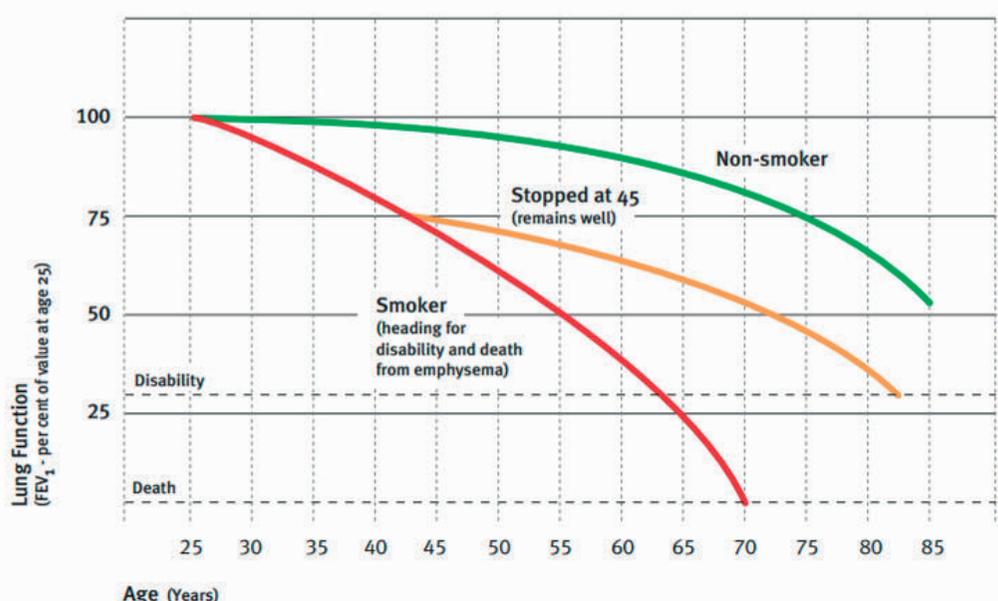
Useful information

- Only one in 10 patients with a metered dose inhaler (MDI) performs all the essential steps correctly. Studies have indicated that patients make fewer errors with dry power inhalers (DPIs) versus aerosol metered MDIs, and patients with multiple devices are more prone to errors
- A short acting beta₂-agonist bronchodilator is used when required (e.g. salbutamol, terbutaline). An anticholinergic (e.g. ipratropium) is more commonly used regularly (three to four times a day), as increased

Reflection exercise 4

List the strengths and weaknesses of your pharmacy to help you develop a plan to improve your NMS, MUR and influenza vaccination services. Aim to hit the MUR and NMS targets and for a 25 per cent increase in your influenza vaccinations (or if your pharmacy is new to the service, to hit the 100-vaccination mark).

Figure 2: Fletcher-Peto diagram: the benefit to the lungs of giving up smoking



cholinergic tone of the airways is thought to be beneficial in COPD

- Mucolytics (e.g. carbocysteine and mecysteine) relieve symptoms of productive cough by reducing the viscosity of sputum and enabling its easier clearance. These are usually taken during the winter months and stopped if not needed in the summer
- Nebuliser systems are not available on prescription. Patients should not consider purchasing or using a nebuliser without the agreement of their GP or COPD specialist. Generally, nebulisers are no more effective than a spacer device plus a MDI. They require regular servicing, maintenance and replacement of disposables such as nebuliser chambers, tubing, mouthpieces and masks. The nebuliser supplier is responsible for help with its maintenance and use
- All COPD patients should be advised to exercise within the limits of their disease as it will improve their quality of life. Patients should be advised to walk more often/further and that being out of breath is not dangerous (as long as they are not gasping for breath). Advise them to use bronchodilators 20 minutes before exercise to reduce breathlessness
- Self-management plans should be discussed with patients having frequent exacerbations. These should include details on how to recognise an exacerbation and the triggers associated with worsening COPD, when to use 'rescue' courses of antibiotics and steroids, and when to contact their GP or other appropriate healthcare professionals
- Recent studies have indicated that COPD patients are at a three-fold increased risk of iron deficiency and that iron-deficient patients are more likely to have reported COPD exacerbations. Symptoms to watch out for include leg cramps when climbing stairs, more fatigue than usual, and unusual cravings for ice and cold food to chew.

Community pharmacy influenza vaccination service

The 2016-17 winter season sees the national community pharmacy influenza vaccination service commissioned for a second year. According to PSNC, community pharmacies vaccinated over 400,000 patients in the 2015-16 season.

Public Health England says influenza contributes to around 14,000 deaths each year. COPD patients have an age-adjusted relative risk of between 5.5 to 10-fold over a healthy person not in an at-risk group. In 2016 early reports of the uptake of the influenza vaccine in the at-risk under 65s (including COPD) was 45.1 per cent – over 5 per cent down on the 50.3 per cent achieved in 2015.¹¹

In the evaluation of the London pilot published in the *BMJ*, the report said there was evidence the service offered patients convenience and choice, but it noted that pharmacies need to ensure that the patient's GP is notified quickly that they have received the vaccination.¹²

It is important to raise awareness of the effectiveness of the flu vaccine with all at-risk groups including COPD patients. This can be done by placing reminders in or on prescription bags and by pharmacy staff asking patients if they know they are eligible for the flu vaccine.

Conclusion

A diagnosis of COPD is the beginning of a lifetime of care for patients. COPD is incurable, inexorably progressive and requires increasing medical, social and psycho-emotional attention and resources as time goes on.



Further resources

- British Lung Foundation helpline: 0845 850 5020; email: enquiries@blf-uk.org; website: lunguk.org
- Global Initiative for Chronic Obstructive Lung Disease (GOLD), World Health Organization (WHO), National Heart, Lung and Blood Institute (NHLBI). Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. GOLD produce a number of useful leaflets for healthcare professionals and patients, including advice about exercises and inhaler technique (goldcopd.com)
- Primary Care Respiratory Society UK: pcrs-uk.org
- NHS Choices: nhs.uk/conditions/Chronic-obstructive-pulmonary-disease/Pages/Introduction.aspx

A smoking cessation scheme is the most important service many pharmacists may be able to provide as it is the only intervention that slows the progression of the disease.

Alternatively, pharmacists may be interested to see if a COPD screening and ongoing management service could be commissioned from their CCG. However, in order to provide such a service, commissioners will first want to know that community pharmacy will be adding value to the patient pathway and, most fundamentally of all, improving the quality of patient care for those who suffer from this serious and life-changing disease.



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SUPPORTING PATIENTS WITH COPD

assessment questions

1. Which of the following is the commonest COPD symptom?

- a. Breathlessness when doing physical activity, night time waking with shortness of breath, regular sputum production
- b. Varying shortness of breath during day and night, chronic unproductive cough, wheeze
- c. Wheeze, regular sputum production, chronic cough
- d. Regular sputum production, breathlessness when doing physical activity, chronic unproductive cough

2. What key difference between COPD and asthma is used to identify a patient with COPD?

- a. Regularly affects under-35s
- b. Is not reversible with inhaled bronchodilators
- c. Peak expiratory flow readings showing 20% diurnal variation
- d. Symptoms exacerbated by trigger factors

3. How long and what strength of prednisolone should be taken for a COPD exacerbation?

- a. 30mg daily for 28 days
- b. 40mg daily for 5 days
- c. 40mg daily for 10 days
- d. 30mg daily for 7 days

4. What percentage of COPD patients are likely to be re-admitted after a stay in hospital within 90 days?

- a. 5 per cent
- b. 31 per cent
- c. 1 per cent
- d. 50 per cent

5. Which of the following therapies has been shown to reduce the likelihood of exacerbation-related hospitalisation?

- a. Long-term oxygen therapy
- b. Short-acting beta₂ agonists (e.g. salbutamol)
- c. Long-acting anti-muscarinic (e.g. tiotropium)
- d. Mucolytics (e.g. carbocysteine)

6. What single action can be taken to most significantly slow the deterioration of lung function?

- a. Regular use of LABA/LAMA inhalers
- b. Pulmonary rehabilitation
- c. Oxygen treatment
- d. Stop smoking

7. What vaccination(s) should COPD sufferers be encouraged to have?

- a. Annual flu vaccination
- b. Annual pneumococcal vaccination
- c. Once-only shingles vaccine
- d. An annual influenza vaccination and a (once-only) pneumococcal vaccination

8. What percentage of patients make one or more significant errors when using a metered-dose inhaler device?

- a. 90 per cent
- b. 5 per cent
- c. 25 per cent
- d. 50 per cent

Use this form to record your learning and action points from this module on **Supporting patients with COPD** or record on your personal learning log at pharmacymagazine.co.uk. You must be registered on the site to do this. Any training, learning or development activities that you undertake for CPD can also be recorded as evidence as part of your RPS Faculty practice-based portfolio when preparing for Faculty membership. So start your RPS Faculty journey today by accessing the portfolio and tools at www.rpharms.com/Faculty.

Activity completed. (Describe what you did to increase your learning. Be specific) (ACT)

Date:

Time taken to complete activity:

What did I learn that was new in terms of developing my skills, knowledge and behaviours? Have my learning objectives been met?*

How have I put this into practice? (Give an example of how you applied your learning). Why did it benefit my practice? (How did your learning affect outcomes?) (EVALUATE)

Do I need to learn anything else in this area? (List your learning action points. How do you intend to meet these action points?) (REFLECT & PLAN)

You can also record in your personal learning log at pharmacymagazine.co.uk

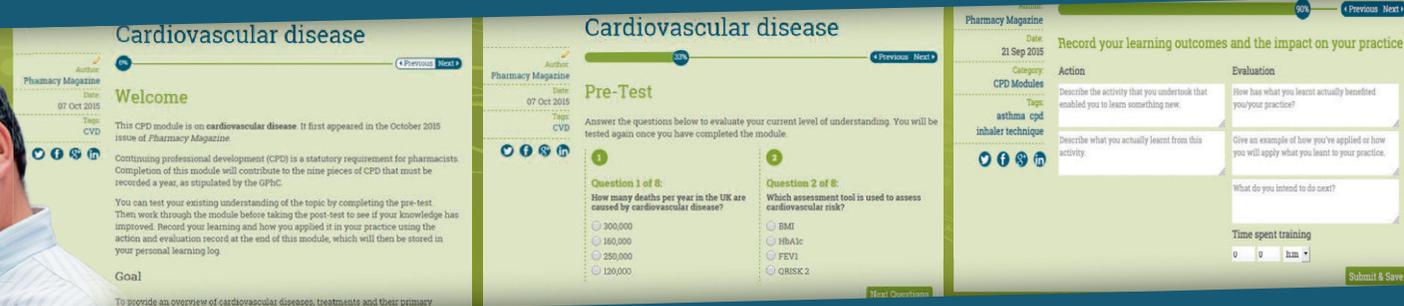


* If as a result of completing your evaluation you have identified another new learning objective, start a new cycle. This will enable you to start at Reflect and then go on to Plan, Act and Evaluate. This form can be photocopied to avoid having to cut this page out of the module. You can also complete the module at www.pharmacymagazine.co.uk and record on your personal learning log

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