Spring 2019
Issue 17

Primary Care Respiratory Update




Edition Highlights

- PCRS consensus guide to managing COPD
- Become a Quit Catalyst
- Essential Guide to Spirometry
- PCRS Conference 2019

Primary Care Respiratory Society www.pcrs-uk.org

FOSTAIR®
Beclometasone + formoterol
Extrafine formulation
100/6

Fostair® NEXThaler 100/6 now licensed for MART[1]

Fostair® — the only extrafine formulation for adult asthma patients requiring an ICS/LABA combination[2]

MART = Maintenance and Reliever Therapy

Fostair® maintenance and reliever therapy should especially be considered for adult asthma patients with:[1]

- not fully controlled asthma and in need of reliever medication
- asthma exacerbations in the past requiring medical intervention

ICS = Inhaled corticosteroid
LABA = Long-acting β_2-agonist

Full indication can be found within the Prescribing Information

Chiesi

Fostair 100/6 and 200/6 Prescribing Information
Please refer to the full Summary of Product Characteristics (SPC) before prescribing.
Presentation: Each Fostair pressurised metered dose inhaler (pMDI) 100/6 dose contains 100 micrograms (mcg) of beclometasone dipropionate (BDP) and 6mcg of formoterol fumarate dihydrate (formoterol). Each Fostair pMDI 200/6 dose contains 200mcg of BDP and 6mcg of formoterol. Each Fostair NEXThaler 100/6 dry powder inhaler (DPI) dose contains 100mcg of BDP anhydrous and 6mcg of formoterol. Each Fostair NEXThaler 200/6 DPI dose contains 200mcg of BDP anhydrous and 6mcg of formoterol. **Indications:** ***Asthma***: Regular treatment of asthma where use of an inhaled corticosteroid/long-acting beta$_2$-agonist (ICS/LABA) combination is appropriate: patients not adequately controlled on ICS and as needed short-acting beta$_2$-agonist, or patients already adequately controlled on both ICS and LABA. ***COPD*** **(Fostair 100/6 only):** Symptomatic treatment of patients with severe COPD (FEV_1 <50% predicted normal) and a history of repeated exacerbations, who have significant symptoms despite regular therapy with long-acting bronchodilators. **Dosage and administration:** For inhalation in adult patients (≥18 years). ***Asthma***: **Maintenance And Reliever Therapy (Fostair 100/6 only)** can be taken as a regular maintenance treatment and as needed in response to asthma symptoms: 1 inhalation twice daily plus 1 additional inhalation as needed in response to symptoms. If symptoms persist after a few minutes, an additional inhalation is recommended. The maximum daily dose is 8 inhalations. Fostair 100/6 may also be used as maintenance therapy (with a separate short-acting bronchodilator as needed). Fostair 200/6 should be used as maintenance therapy only. **Maintenance therapy**: Fostair 100/6: 1–2 inhalations twice daily. Fostair 200/6: 2 inhalations twice daily. The maximum daily dose is 4 inhalations. Patients should receive the lowest dose that effectively controls their symptoms. ***COPD*** **(Fostair 100/6 only)**: 2 inhalations twice daily. Fostair pMDI can be used with the AeroChamber Plus® spacer device. BDP in Fostair is characterised by an extrafine particle size distribution which results in a more potent effect than formulations of BDP with a non-extrafine particle size distribution (100mcg of BDP extrafine in Fostair are equivalent to 250mcg of BDP in a non-extrafine formulation). When switching patients from previous treatments, it should be considered that the recommended total daily dose of BDP for Fostair is lower than that for non-extrafine BDP containing products and should be adjusted to the needs of the individual patient. However, patients who are transferred between Fostair NEXThaler and Fostair pMDI do not need dose adjustment. **Contraindications:** Hypersensitivity to the active substances or to any of the excipients. **Warnings and precautions:** Use with caution in patients with cardiac arrhythmias, aortic stenosis, hypertrophic obstructive cardiomyopathy, ischaemic heart disease, severe heart failure, congestive heart failure, occlusive vascular diseases, arterial hypertension, severe arterial hypertension, aneurysm, thyrotoxicosis, diabetes mellitus, phaeochromocytoma and untreated hypokalaemia. Caution should also be used when treating patients with known or suspected prolongation of the QTc interval (QTc > 0.44 seconds). Formoterol itself may induce QTc prolongation. Potentially serious hypokalaemia may result from beta$_2$-agonist therapy and may also be potentiated by concomitant treatments (e.g. xanthine derivatives, steroids and diuretics). Formoterol may cause a rise in blood glucose levels. Fostair should not be administered for at least 12 hours before the start of anaesthesia, if halogenated anaesthetics are planned as there is risk of arrhythmias. Use with caution in patients with pulmonary tuberculosis or fungal/viral airway infections. Increase in pneumonia and pneumonia hospitalisation in COPD patients receiving ICS. Clinical features of pneumonia may overlap with symptoms of COPD exacerbations. Fostair treatment should not be stopped abruptly. Medical attention should be sought if treatment ineffective. Treatment should not be initiated during exacerbations or acutely deteriorating asthma. Fostair treatment should be discontinued immediately if the patient experiences a paradoxical bronchospasm. Fostair is not intended for initial management of asthma. Systemic effects of ICS may occur, particularly at high doses for long periods, but are less likely than with oral steroids. These include Cushing's syndrome, Cushingoid features, adrenal suppression, decrease in bone mineral density, cataract and glaucoma and more rarely, a range of psychological or behavioural effects including psychomotor hyperactivity, sleep disorders, anxiety, depression and aggression. Consider referral of patients reporting blurred vision or visual disturbances to an ophthalmologist as causes may include cataract, glaucoma or rare diseases such as central serous chorioretinopathy. Prolonged treatment with high doses of ICS may result in adrenal suppression and acute adrenal crisis. Lactose in Fostair NEXThaler contains small amounts of milk proteins, which may cause allergic reactions. **Interactions:** Possibility of systemic effects with concomitant use of strong CYP3A inhibitors (e.g. ritonavir, cobicistat) cannot be excluded and therefore caution and appropriate monitoring is advised. Beta-blockers should be avoided in asthma patients. Concomitant administration of other beta-adrenergic drugs may have potentially additive effects. Concomitant treatment with quinidine, disopyramide, procainamide, phenothiazines, antihistamines, monoamine oxidase inhibitors (MAOIs) and tricyclic antidepressants can prolong the QTc interval and increase the risk of ventricular arrhythmias. L-dopa, L-thyroxine, oxytocin and alcohol can impair cardiac tolerance towards beta$_2$-sympathomimetics. Hypertensive reactions may occur following co-administration with MAOIs including agents with similar properties (e.g. furazolidone, procarbazine). Concomitant treatment with xanthine derivatives, steroids or diuretics may potentiate a possible hypokalaemic effect of beta$_2$-agonists. Hypokalaemia may increase the likelihood of arrhythmias in patients receiving digitalis glycosides. Presence of ethanol in Fostair pMDI may cause potential interaction in sensitive patients taking metronidazole or disulfram. **Fertility, pregnancy and lactation:** Fostair should only be used during pregnancy or lactation if the expected benefits outweigh the potential risks. A risk/benefit decision should be taken to discontinue/abstain from therapy in the mother or discontinue breastfeeding. **Effects on driving and operating machinery:** Fostair is unlikely to have any effect on the ability to drive and use machines. **Side effects:** *Common*: pneumonia (in COPD patients), pharyngitis, oral candidiasis, headache, dysphonia, tremor. *Uncommon:* influenza, oral fungal infection, oropharyngeal candidiasis, nasopharyngitis, oesophageal candidiasis, vulvovaginal candidiasis, gastroenteritis, sinusitis, rhinitis, granulocytopenia, allergic dermatitis, hypokalaemia, hyperglycaemia, hypertriglyceridaemia, restlessness, dizziness, otosalpingitis, palpitations, prolongation of QTc interval, ECG change, tachycardia, tachyarrhythmia, atrial fibrillation, sinus bradycardia, angina pectoris, myocardial ischaemia, blood pressure increased, hyperaemia, flushing, cough, productive cough, throat irritation, asthmatic crisis, exacerbation of asthma, dyspnoea, pharyngeal erythema, diarrhoea, dry mouth, dyspepsia, dysphagia, burning sensation of the lips, nausea, dysgeusia, pruritus, rash, hyperhidrosis, urticaria, muscle spasms, myalgia, C-reactive protein increased, platelet count increased, free fatty acids increased, blood insulin increased, blood ketone body increased, blood cortisol decrease, oropharyngeal pain, fatigue, irritability, cortisol free urine decreased, blood potassium increased, blood glucose increased, ECG poor r-wave progression. *Rare*: ventricular extrasystoles, paradoxical bronchospasm, angioedema, nephritis, blood pressure decreased. *Very rare*: thrombocytopenia, hypersensitivity reactions, including erythema, lips, face, eyes and pharyngeal oedema, adrenal suppression, glaucoma, cataract, peripheral oedema, bone density decreased. *Unknown frequency*: psychomotor hyperactivity, sleep disorders, anxiety, depression, aggression, behavioural changes, blurred vision. (Refer to SPC for full list of side effects). **Legal category:** POM **Price and Pack:** £29.32 1x120 actuations **Marketing authorisation (MA) No(s):** PL 08829/0156, PL 08829/0175, PL 08829/0173, PL 08829/0174 **MA holder:** Chiesi Ltd, 333 Styal Road, Manchester, M22 5LG. **Date of Preparation:** Aug 2018. AeroChamber Plus® is a registered trademark of Trudell Medical International.

Adverse events should be reported.
Reporting forms and information can be found at www.mhra.gov.uk/yellowcard or search for MHRA Yellow Card in the Google Play or Apple App Store.
Adverse events should also be reported to Chiesi Ltd on 0800 0092329 (UK), 1800 817459 (IE) or PV.UK@Chiesi.com.

References
1. Fostair® NEXThaler 100/6 Summary of Product Characteristics. Chiesi Limited. **2.** MIMS Online. 2018. Available at www.mims.co.uk Accessed October 2018.

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Primary Care Respiratory Update

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www.pcrs-uk.org/pcru

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See http://www.pcrs-uk.org/sites/pcrs-uk.org/files/files/PI_funding.pdf for PCRS statement on pharmaceutical funding.

Intelligently designed. Simple to use.[1,2]

The first and only ICS/LABA fixed-dose combination (FDC) delivered in a breath-actuated aerosol inhaler.[3]

References:

1. Mundipharma International Limited. flutiform k-haler. Summary of Product Characteristics. Available from: https://www.medicines.org.uk/emc/product/9483/smpc. Last accessed October 2018.
2. Bell D et al. J Aerosol Med Pulm Drug Deliv 2017; 30:425–34.
3. MIMS. Available from: www.mims.co.uk/search/drugs?keywords=Beta 2 agonists, long-acting/corticosteroids. Last accessed July 2018.

***flutiform*® *k-haler*® (fluticasone propionate/formoterol fumarate). 50 µg/5 µg and 125 µg /5 µg pressurised inhalation suspension**
Prescribing Information United Kingdom. Please read the Summary of Product Characteristics before prescribing.

Presentation Pressurised inhalation suspension, in a breath-actuated pressurised aerosol inhaler. **Indications** Regular treatment of asthma where the use of a combination product (inhaled corticosteroid [ICS] and long-acting β2-agonist [LABA]) is appropriate: (i) for patients not adequately controlled with ICS and 'as required' inhaled short-acting β2-agonist (SABA) (ii) for patients already adequately controlled on both an ICS and a LABA. For adults and adolescents aged 12 years and above. **Dosage and administration** For inhalation use. Patients should be shown how to use the inhaler correctly by a healthcare professional. Patients should be given the strength of *flutiform k-haler* containing the appropriate fluticasone propionate dose for their disease severity (note that ***flutiform k-haler*** 50 µg/5 µg per actuation is not appropriate in patients with severe asthma). The appropriate strength should be taken as two inhalations, twice daily (normally morning and evening) and used every day, even when asymptomatic. ***flutiform k-haler*** is not recommended in children under 12 years. Prescribers should be aware that in asthmatics, fluticasone propionate is as effective as some other inhaled steroids when administered at approximately half the total daily microgram dose. Patients should be assessed regularly and once asthma is controlled, treatment should be reviewed and stepped down to the lowest effective dose, or an ICS alone. ICSs alone are first line treatment for most patients. ***flutiform k-haler*** is not intended for initial treatment of mild asthma. For patients with severe asthma the ICS therapy should be established before prescribing a fixed-dose combination product. Patients on ***flutiform k-haler*** must not use an additional LABA. An inhaled SABA should be taken for immediate relief of asthma symptoms arising between doses. Patients should be advised to contact their prescriber when ***flutiform k-haler*** dose counter is getting near zero. **Contraindications** Hypersensitivity to the active substances or to any of the excipients. **Precautions and warnings** ***flutiform k-haler*** should not be used as the first asthma treatment, to treat acute asthma symptoms or for prophylaxis of exercise-induced asthma. It should not be initiated during an exacerbation, during significantly worsening or acutely deteriorating asthma, and should not be stopped abruptly. If a patient experiences serious asthma-related adverse events or exacerbations, they should continue treatment and seek medical advice. Patients should be reviewed as soon as possible if there is any indication of deteriorating asthma control. In case of sudden and progressive deterioration, seek urgent medical assessment. Caution in patients with: pulmonary tuberculosis; quiescent tuberculosis; fungal, viral or other infections of the airway; thyrotoxicosis; phaeochromocytoma; diabetes mellitus (consider additional blood sugar controls); uncorrected hypokalaemia; predisposition to low levels of serum potassium; impaired adrenal function (monitor HPA axis function regularly); hypertrophic obstructive cardiomyopathy; idiopathic subvalvular aortic stenosis; severe hypertension; aneurysm or other severe cardiovascular disorders; unstable or acute severe asthma and other conditions when the likelihood for hypokalaemia adverse effects is increased. There is risk of potentially serious hypokalaemia with high doses of β2-agonists or concomitant treatment with β2-agonists and drugs that can induce or potentiate a hypokalaemic effect. Monitoring of serum potassium levels is recommended during these circumstances. Formoterol may induce prolongation of the QTc interval. Caution must be observed when treating patients with existing prolongation of QTc interval. ***flutiform k-haler*** should be discontinued immediately if there is evidence of paradoxical bronchospasm. Visual disturbance may be reported with corticosteroid use. Systemic effects with an ICS may occur, particularly at high doses for prolonged periods or when combined with potent CYP3A4 inhibitors, but are less likely than with oral corticosteroids. Possible systemic effects include Cushing's syndrome, Cushingoid features, adrenal suppression, growth retardation in children and adolescents, decrease in bone mineral density and cataract glaucoma. Children may also experience anxiety, sleep disorders and behavioural changes. Increased exposure can be expected in patients with severe hepatic impairment. Prolonged treatment with high doses of corticosteroids may result in adrenal suppression and acute adrenal crisis, particularly in children and adolescents or potentially as a result of trauma, surgery, infection or rapid dose reduction. ***flutiform k-haler*** contains a negligible amount of ethanol that does not pose risk to patients. Interactions Co-treatment with CYP3A inhibitors (e.g. ritonavir, atazanavir, clarithromycin, indinavir, itraconazole, nelfinavir, saquinavir, ketoconazole, telithromycin, cobicistat) should be avoided unless the benefit outweighs the increased risk of systemic side-effects. Caution is advised with concomitant use of non-potassium sparing diuretics (e.g. loop or thiazide), xanthine derivatives, glucocorticosteroids, L-Dopa, L-thyroxine, oxytocin, alcohol or other adrenergic drugs, including anaesthesia with halogenated hydrocarbons and digitalis glycosides, β-adrenergic drugs, known to prolong the QTc interval, such as tricyclic antidepressants or MAOIs (and for two weeks following their discontinuation), antipsychotics (including phenothiazines), quinidine, disopyramide, procainamide, antihistamines. **Furazolidone and procarbazine** ***flutiform k-haler*** should not normally be used with β-blockers including those that are used as eye drops to treat glaucoma. Under certain circumstances, e.g. as prophylaxis after myocardial infarction, cardioselective β-blockers could be considered with caution. **Pregnancy and lactation** ***flutiform k-haler*** is not recommended during pregnancy unless the benefits to the mother outweigh risks to the foetus. A risk to the breastfeeding infant cannot be excluded. **Side-effects** Uncommon (<1/100) but potentially serious side-effects: hyperglycaemia, agitation, depression, aggression, behavioural changes (predominantly in children), vision blurred, vertigo, palpitations, ventricular extrasystoles, angina pectoris, tachycardia, hypertension, dyspnoea, peripheral oedema. Please consult the SPC for a full list of side-effects and those reported for the individual molecules. **Legal category** POM **Package quantities and price** One inhaler (120 actuations) 50 µg/5 µg - £14.40 125 µg/5 µg - £28.00 **Marketing Authorisation numbers** PL 16950/0338-39 **Marketing Authorisation holder** Napp Pharmaceuticals Limited Cambridge Science Park Milton Road Cambridge CB4 0GW UK Tel: 01223 424444 For medical information enquiries, please contact medicalinformationuk@napp.co.uk. FLUTIFORM is a registered trademark of Jagotec AG, and is used under licence. K-HALER is a registered trade mark of Mundipharma AG.

UK/FLUT-K-18011 Date of preparation: May 2018

Adverse events should be reported. Reporting forms and information can be found at www.mhra.gov.uk/yellowcard. Adverse events should also be reported to Napp Pharmaceuticals Limited on 01223 424444.

flutiform® k-haler®
fluticasone propionate/formoterol

NAPP
RESPIRATORY

UK/FLUT-K-18020r; Date of preparation October 2018

Contents

Primary Care Respiratory Update

Special features

Regular features

LESS TO TAKE. MORE TO TAKE IN.

The only COPD Triple Therapy delivered in a single daily inhalation.[1]
Improvement in quality of life vs. ICS/LABA.[2]

*The first COPD triple therapy licensed for patients with moderate to severe COPD not adequately treated by an ICS/LABA or a LAMA/LABA

TRELEGY ▼ ELLIPTA

fluticasone furoate/umeclidinium/vilanterol

A combination of ICS/LAMA/LABA (FF/UMEC/VI) administered through a single daily inhalation from the Ellipta inhaler, which is easy to use[1–4]

Trelegy Ellipta FF/UMEC/VI 92/55/22 mcg is indicated for maintenance treatment in adult patients with moderate-to-severe COPD who are not adequately treated by a combination of an ICS and a LABA or a LAMA and a LABA.[1]

COPD, chronic obstructive pulmonary disease; FF, fluticasone furoate; ICS, inhaled corticosteroids; LABA, long-acting β_2-agonist; LAMA, long-acting muscarinic antagonist; OD, once-daily; UMEC, umeclidinium, VI, vilanterol.

References: 1. Trelegy Ellipta SmPC. **2.** Lipson DA *et al. Am J Respir Crit Care Med* 2017; 196:438–446. **3.** Svedsater H *et al. BMC Pulm Med* 2013; 13:72–86. **4.** van der Palen J *et al. NPJ Prim Care Respir Med* 2016; 26:16079.

Trelegy ▼ Ellipta (fluticasone furoate/umeclidinium/vilanterol [as trifenatate]) Prescribing information

Please consult the full Summary of Product Characteristics (SmPC) before prescribing. **Trelegy Ellipta (fluticasone furoate/umeclidinium/vilanterol [as trifenatate]) inhalation powder.** Each single inhalation of fluticasone furoate (FF) 100 micrograms (mcg), umeclidinium (UMEC) 62.5 micrograms and vilanterol (VI) 25 mcg provides a delivered dose of 92 mcg FF, 55 mcg UMEC and 22 mcg VI. **Indications**: Maintenance treatment in adult patients with moderate to severe COPD who are not adequately treated by a combination of an inhaled corticosteroid (ICS) and a long-acting β_2-agonist (LABA) or a combination of a long-acting β_2-agonist and a long-acting muscarinic antagonist. **Dosage and administration:** One inhalation once daily. **Contraindications**: Hypersensitivity to the active substances or to any of the excipients (lactose monohydrate & magnesium stearate). **Precautions:** Paradoxical bronchospasm, unstable or life-threatening cardiovascular disease or heart rhythm abnormalities, convulsive disorders or thyrotoxicosis, pulmonary tuberculosis or patients with chronic or untreated infections, narrow-angle glaucoma, urinary retention, hypokalaemia, patients predisposed to low levels of serum potassium, diabetes mellitus. In patients with moderate to severe hepatic impairment patients should be monitored for systemic corticosteroid-related adverse reactions. Eye symptoms such as blurred vision may be due to underlying serious conditions such as cataract, glaucoma or central serous chorioretinopathy (CSCR); consider referral to ophthalmologist. Increased incidence of pneumonia has been observed in patients with COPD receiving inhaled corticosteroids. *Risk factors for pneumonia include:* current smokers, older age, patients with a low body mass index and severe COPD. Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take Trelegy. *Acute symptoms:* Not for acute symptoms, use short-acting inhaled bronchodilator. Warn patients to seek medical advice if short-acting inhaled bronchodilator use increases. Therapy should not be abruptly stopped without physician supervision due to risk of symptom recurrence. *Systemic effects:* Systemic effects of ICSs may occur, particularly at high doses for long periods, but much less likely than with oral corticosteroids. **Interactions with other medicinal products:** Caution should be exercised during concurrent use of non-selective and selective beta-blockers and when co-administering with strong CYP3A4 inhibitors (e.g. ketoconazole, ritonavir, cobicistat-containing products), hypokalaemic treatments or non-potassium-sparing diuretics. Co-administration with other long-acting muscarinic antagonists or long acting β_2-adrenergic agonists has not been studied and is not recommended. **Pregnancy and breast-feeding:** Experience limited. Balance risks against benefits. **Side effects:** *Common (≥1/100 to <1/10):* pneumonia, upper respiratory tract infection, bronchitis, pharyngitis, rhinitis, sinusitis, influenza, nasopharyngitis, candidiasis of mouth and throat, urinary tract infection, headache, cough, oropharyngeal pain, constipation, arthralgia, back pain. Other important side effects include: *Uncommon (≥1/1,000 to <1/100)* supraventricular tachyarrhythmia, tachycardia, atrial fibrillation; *Not known (cannot be estimated from the available data)* vision blurred; See SmPC for other adverse reactions. **Legal category:** POM. **Presentation and Basic NHS cost:** *Trelegy Ellipta 92/55/22 mcg* - £44.50. 1 inhaler x 30 doses. **Marketing authorisation (MA) nos. 92/55/22 mcg 1x30 doses [EU/1/17/1236/02]; MA holder:** GSK Trading Services Ltd., Currabinny, Co. Cork Ireland. **Last date of revision:** November 2018. UK/TLY/0031/17(1). Trademarks are owned by or licensed to the GSK group of companies. 2018 GSK group of companies or its licensor Trelegy Ellipta was developed in collaboration with Innoviva Inc.

Adverse events should be reported. Reporting forms and information can be found at **www.mhra.gov.uk/yellowcard** or search for MHRA Yellowcard in the Google Play or Apple App Store. Adverse events should also be reported to GlaxoSmithKline on **0800 221 441.**

Discover more at www.trelegy.co.uk

A full list of adverse reactions for Trelegy Ellipta can be found in the Summary of Product Characteristics.

Trelegy Ellipta was developed in collaboration with INNOVIVA

Zinc code: UK/TLY/0011/19 | **Date of preparation:** January 2019

Editor's Round-Up

Dr Iain Small, *Editor Primary Care Respiratory Update*

Welcome to this edition of PCRU. As we finally see the back of winter, we can dust ourselves down in a metaphorical spring clean, and look forward to a host of new learning opportunities that will come our way from PCRS – many of which are highlighted in this journal.

Whilst we are in the mood for "out with the old and in with the new", we have given you an opportunity to learn more about the incoming Chair of PCRS Carol Stonham, who takes over from Noel Baxter later this year. I would like to take this opportunity to acknowledge Noel's hard work over the last three years.

I would urge you to pay particular attention to the COPD consensus paper with Vince Mak as first author. We now have a range of differing guidance on the management of this disease from GOLD and NICE, and the authors, whilst pulling no punches about either organisation, have made a great job of finding a practical solution for primary care, and more importantly our patients. The importance of doing so is highlighted in Alicia Gayle's paper reported in Journal Watch, where there are the usual selection of respiratory nuggets for us to digest, and in particular a Swiss tale with a musical twist.

Do take time to read Bronwen Thompson's Policy Update, and in particular the news about inhalers and their environmental impact. PCRS will be taking an active and balanced view on this issue, on your behalf, as it will affect us all, not necessarily for the better.

Finally, those observant amongst you will have noticed that after much teasing by friends and colleagues, I have eventually persuaded the PCRU team to replace my photo on this editorial. Those of you who know me will appreciate that vanity is not one of my failings, and I am delighted to have a picture that portrays the older, more mature me at long last.

REMEMBER *your* FIRST SUCCESS STORY WITH SERETIDE?

(salmeterol/fluticasone propionate)

LIST PRICE
50%
REDUCED*

Seretide Evohaler 25/250mcg
£29.32

SERETIDE
salmeterol/fluticasone propionate

Seretide Evohaler 25/125mcg list price also reduced by 33% to £23.45.

*GSK list price reduction since August 2018.
For more information on Seretide please go to www.seretide.co.uk

November 2018 Prescribing Information
(Please refer to the full Summary of Product Characteristics (SPC) before prescribing)
Seretide Accuhaler and Evohaler (salmeterol xinafoate and fluticasone propionate) Uses: Asthma: Regular treatment of asthma, where use of a combination product (LABA and ICS) is appropriate, i.e. patients not adequately controlled on ICS and 'as needed' short-acting inhaled bronchodilator or patients controlled on ICS and LABA. Note: Seretide 50 Evohaler and Seretide 100 Accuhaler are not appropriate in severe asthma. COPD: Symptomatic treatment of patients with COPD with a FEV_1 <60% predicted normal (prebronchodilator) and a history of repeated exacerbations, who have significant symptoms despite regular bronchodilator therapy. **Dosage and administration: See SPC for more detail on dosing** Inhalation only. Asthma: *Adults and adolescents ≥12 years*: Seretide Accuhaler- one inhalation b.d. of Seretide 100, 250 or 500 Accuhaler or Seretide Evohaler – two inhalations b.d. of Seretide 50, 125 or 250 Evohaler *Children 4-11 years*: Seretide 50 Evohaler two inhalations b.d. Volumatic or AeroChamber Plus spacer device use recommended. Seretide 100 Accuhaler one inhalation b.d. Maximum licensed dose of fluticasone propionate delivered by Seretide inhaler in children is 100 microgram twice daily. Regularly review patients and reduce dose to lowest that maintains effective symptom control. Where the control of symptoms is maintained with the lowest strength of the combination, patients may be prescribed an inhaled corticosteroid alone stepped down. COPD: one inhalation b.d. of Seretide 500 Accuhaler. **Contraindications:** Hypersensitivity to active substances or excipient; Accuhaler contains lactose monohydrate). **Special warnings and Precautions:** Not for acute treatment of asthma attack, nor initiation in significantly or acutely deteriorating asthma. Advise patients to seek medical attention if symptoms deteriorate. Caution in patients with: Pulmonary infections e.g. TB, fungal, viral; severe cardiovascular disorders, heart rhythm abnormalities, diabetes mellitus, thyrotoxicosis and hypokalaemia. May cause cardia arrhythmias, paradoxical bronchospasm post-dose, hyperglycaemia, β_2 agonist effects and pneumonia. Risk factors for pneumonia include current smoking, older age, low BMI and severe COPD. Systemic effects of inhaled corticosteroids may occur, particularly at high doses for prolonged periods, but much less likely than with oral steroids. Eye symptoms may be due to underlying serious conditions - consider referral to ophthalmologist. Cessation of and dose changes to steroids, transfer from oral steroids and stressful situations require caution. Regularly monitor height of children receiving prolonged treatment with ICS. The dose of ICS should be reduced to the lowest dose at which effective control of asthma is maintained. **Drug interactions:** Avoid betablockers in asthma. Potentially serious hypokalaemia may result from β_2 agonist therapy. Particular caution is advised in acute severe asthma as this effect may be potentiated by concomitant treatment with xanthine derivatives, steroids and diuretics. Avoid concomitant administration with potent and moderate CYP3A4 inhibitors unless benefits outweigh potential risk. **Pregnancy and lactation:** Experience limited. Balance risks against benefits. **Side effects:** *Very Common*: headache, nasopharyngitis. *Common*: oropharangeal candidiasis, pneumonia (in COPD), bronchitis, hypokalaemia, throat irritation, hoarseness/dysphonia, sinusitis, contusions, muscle cramps, traumatic fractures, arthralgia, myalgia. *Serious other - uncommon*: hyperglycaemia, cataract cardiac arrhythmias, angina pectoris. Rare: oesophageal candidiasis, angioedema, respiratory symptoms (bronchospasm), anaphylaxis, Cushings syndrome, cushingoid features, adrenal suppression, growth retardation in children and adolescents, decreased bone mineral density, behavioural changes (predominantly in children), glaucoma, cardiac arrhythmias and paradoxical bronchospasm. *Not known*: depression or aggression (predominantly in children). *Paradoxical bronchospasm*: substitute alternative therapy.

Legal category: POM. **Presentation and Basic NHS cost:** Accuhaler 60 inhalations. *Seretide 100* - £18.00. *Seretide 250* - £35.00. *Seretide 500* - £32.74. Evohaler 120 inhalations. *Seretide 50* - £18.00. *Seretide 125* - £23.45. *Seretide 250* - £29.32. **Product Licence (PL) nos:** 10949/0314-0316, 10949/0337-0339. **PL holder: Glaxo Wellcome UK Limited, trading as GlaxoSmithKline UK**, Stockley Park West, Uxbridge, UB11 1BT. **Last revision:** November 2018. Zinc code: UK/RESP/0333/14(5). Seretide, Accuhaler and Evohaler are registered trademarks of the GlaxoSmithKline Group of Companies. **For the UK, further information is available from Customer Contact Centre, GlaxoSmithKline, Stockley Park West, Uxbridge, Middlesex UB11 1BT;** customercontactuk@gsk.com; Freephone: 0800 221 441

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UK/SFC/0010/18m February 2019

Chair's Perspective

Noel Baxter, *PCRS Executive Chair*

The NHS Long Term Plan (LTP) for England has now been published and following soon after came the new GP contract that has provided more detail about what Primary Care Networks (PCNs) will look like and when they will start to become operational. Both of these publications are very relevant to the respiratory interested clinician particularly in England and the development and implementation process may well provide useful materials and thinking for all three of the other UK countries too.

Ultimately, the inclusion of respiratory disease as a priority disease area is very good news and many of you who have been campaigning for this for many years may well see it as somewhat overdue. I am particularly cognisant of the many passionate respiratory health professionals who have now left the Society or are less active and the non-clinical influencers whose input and impact should now be noted and applauded.

In particular I would want to mention Bronwen Thompson who in the next few months will be retiring from her 17-year reign as Policy Lead for what was the GPIAG to the Society we are today. It is fitting that before her retirement, Bronwen can now see an NHS strategy document that finally appears to be worth more than just the paper it is written on and that often then gets forgotten – of which there have been a few! These two plans represent the culmination of many years of hard work trying to get a seat at the table and influencing the powers that be and interpreting and communicating the many and varied views and opinions of the clinicians she has worked with over that time. This is a fitting legacy and now the baton is passed to others to ensure that we really do now take this opportunity and implement the improvements we have all hoped for, for some time.

I have looked back over the PCRU editions of recent years and note that what we have been campaigning on and working to chimes very much with the respiratory content of the plan. It is clear to me that PCRS is embedded in both the LTP and new GP contract and we have been heard.

Diagnosis is one area that features strongly and linked to that is the need to provide better training and ongoing learning for those who both perform the tests and make these critical decisions for patients with respiratory symptoms. This is also a key priority area identified for the workplan of the Taskforce for Lung Health recently published by a collaboration of 29 organisations who are working together to improve lung health and PCRS will co-lead this workstream.

Wales delivers three times more referrals for pulmonary rehabilitation (PR) than England and as a result of this and its high proportion of rural populations it has also had to be more creative with how to deliver it. Having a Quality and Outcomes Framework (QOF) indicator has certainly been key to this and one of the campaigning successes of PCRS which will now be realised in the 2019/20 QOF year in England is a requirement for referral for people with COPD to PR. We look forward to supporting the new community and primary structures in developing their plans to deliver this high value intervention.

We are pleased to see that primary care networks will be a keystone in integrating services outside hospitals and we will be keen to support the distinct role of general practice within these organisations. PCRS will campaign for appropriate resources and education to sit alongside them. We continue to develop and

communicate our 'Fit to Care' work that will be key to delivering education for better respiratory care with new members of the PCN workforce. Our Respiratory Service Framework and Networked Diagnostics specification will be something our new and emerging PCN clinical directors should be looking to learn from and will be highlighted within the Service development stream of our autumn annual conference. As a society, general practice sits at our core and was the founding part of the organisation we have today. In recent years we have fully established ourselves as an integrated society and our senior leaders are from a wide professional background, a position that will also need to be realised in the new PCNs.

We have recently appointed new members to our Education and Service Development committees having received an unprecedented number of applications from highly experienced and senior members of the respiratory interested community across the UK. We are pleased that we continue to be able to appoint excellent pharmacists, nurses from a wide scope of experience and physiotherapists to sit alongside our GP colleagues.

As many of you will know I have a passionate interest in developing the health system to better treat tobacco dependence. It was therefore very pleasing to see specific recommendations for highlighting the need to identify and treat inpatients, those with mental health conditions and pregnant women who smoke. However, as set out in the Ottawa model, quoted in the document, I would like to stress that it is an absolutely essential element to the model that patients identified and treated for tobacco dependency in secondary care should have their care transferred to the out-of-hospital services.

Here I can see an opportunity of better collaborative working between our PCNs, local authorities and hospitals in delivering a 'Place'-based comprehensive approach to tobacco control. It will be key that the Social Care Green Paper anticipated in the summer of 2019 enables our health and social care colleagues to work together to deliver better outcomes for respiratory illness. Of course, the opportunity to collaborate goes beyond tobacco with obesity, low physical activity, poor mental health, housing and air quality – to name a few – all areas amenable to change through better population-based joint working.

Now and in the coming months PCRS will be working with the NHS in fleshing out and implementing the LTP at both a national and local level and working with our members in the new PCNs to help them finally deliver the better outcomes we know can be achieved.

All that glitters is not GOLD, nor is it even NICE





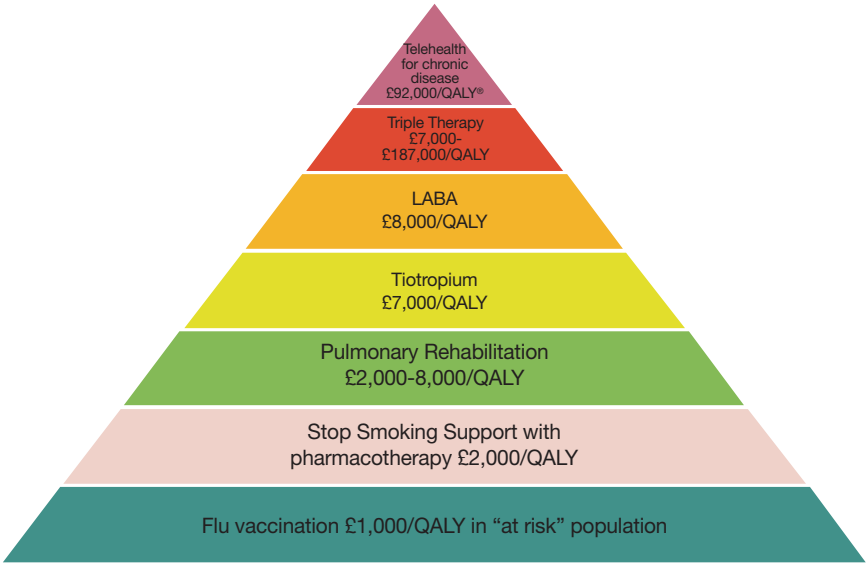

Treatment guidelines for 'All that glitters is not GOLD, nor is it even NICE' is a consensus-based article that sets out a simple treatment pathway based on the predominant characteristics of COPD for an individual – whether symptoms or exacerbations – distilled from current guidelines. The article has been developed by a group of clinicians working with and in primary care, facilitated by integrated care consultant Vince Mak; GPs Duncan Keeley, Noel Baxter and Kevin Gruffydd Jones; practice nurse Carol Stonham; and pharmacist Anna Murphy.

Background

The NICE COPD guideline was first developed in 2004 and partially updated in 2010. Since then, the absence of up-to-date guidance from NICE in a condition which has generated much interest and research in recent years has meant the GOLD COPD strategy (updated every 18–24 months) has gained some traction in the UK. The most recent 2019 GOLD revision was published in November 2018.[1]

NICE finally published an updated guideline in December 2018.[2] At consultation stage in mid 2018, two issues not being covered in the update were identified as omissions, and NICE has decided to add these as a 2019 update for publication in July 2019.[3] A draft guideline covering these two areas was put out to consultation in February. The NICE guideline has had to catch up on 8 years of developments, mainly in pharmacological treatment. Since 2010, the management of COPD has changed dramatically from treatment based on severity of FEV1 impairment to treatment based on clinical characteristics of the patient (so-called 'treatable traits' or phenotypes). In addition, the role of inhaled corticosteroids (ICS) in COPD has been more clearly defined and there has been a decline over recent years in the use of ICS – especially high-dose ICS – in England. This may have been driven more by the London Respiratory Team COPD Value Pyramid and highlighting concerns around the use of high-dose ICS in COPD than any specific guideline (Figure 1).[4]

Figure 1 London Respiratory Team COPD Value Pyramid



The PCRS published our consensus view on how COPD could be managed in primary care[5] based on both the GOLD 2017 and NICE 2010 guidelines, attempting to distil the best elements relevant to a primary care setting. Now that we have two up-to-date sets of guidance, we need to consider if our PCRS consensus view needs modifying.

This consensus article will only focus on pharmacotherapy in both GOLD and NICE to highlight similarities and differences. There is very little controversy in any of the other sections of the guidelines; indeed, there is broad agreement.

Treatment algorithms

GOLD 2019

The latest iteration of the GOLD treatment algorithms has changed dramatically from 2017. GOLD still uses the Refined Assessment Tool that was introduced in 2017 to categorise COPD into four groups (A, B, C and D) based on symptoms and risk of exacerbations (Figure 2). Although it continues to use FEV1 to grade severity, this is not part of the assessment tool.

Now there are two separate algorithms, one for initiation of therapy (Figure 3) and another for follow-up treatment (Figure 4). Initial treatment is based upon which of the four groups the patient falls into at diagnosis.

The treatment options in each group have been greatly simplified since 2017. The groupings can be interpreted as Groups A+B (breathless patients) and Groups C+D (exacerbating patients). Reducing to predominantly breathless and predominantly exacerbating patients, this model can be further simplified to:

Breathlessness: SABA → LABA or LAMA

Exacerbations: SABA → LAMA or LAMA/LABA or ICS/LABA (if eosinophils >300)

Following the initiation, the effect of management should be reviewed to see if they have achieved their treatment goals. Inhaler tech-

Figure 2 GOLD Refined ABCD Assessment Tool

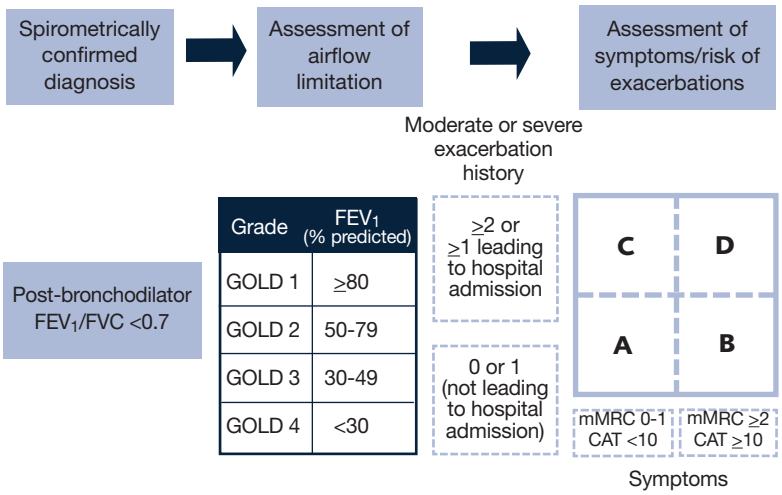


Figure 3 GOLD model for initiation of pharmacological management of COPD

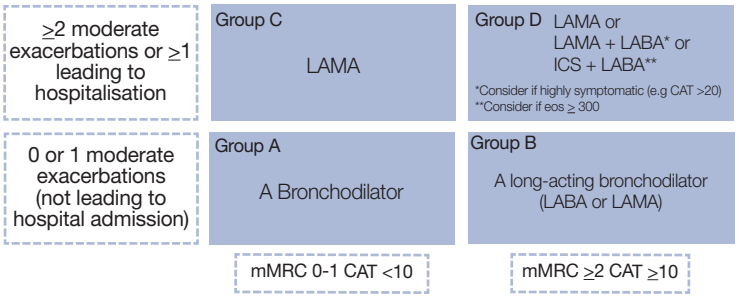
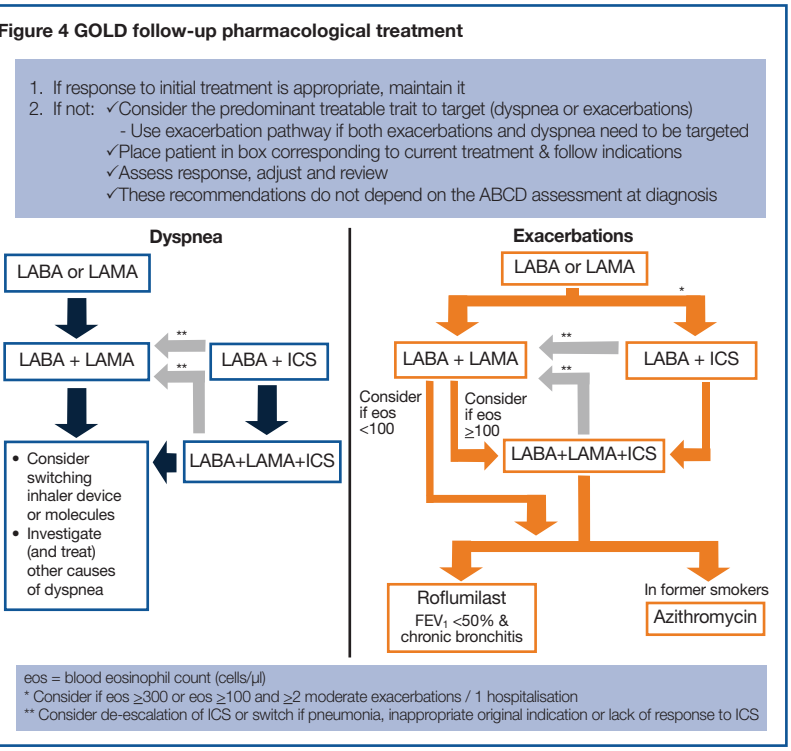


Figure 4 GOLD follow-up pharmacological treatment



nique and adherence should also be assessed along with non-pharmacological interventions. Treatment can then be adjusted, either escalated or de-escalated or a change in inhaler device or molecule as part of a management cycle.

Follow-up treatment is now based on whether the patient has continued breathlessness or frequent exacerbations but not on the patient's GOLD group at diagnosis (even though we can see that GOLD grouping is actually based on symptoms and exacerbations). The new algorithm, even though it is just split into only two treatable patient types, looks very busy as it displays both escalation and de-escalation of treatment within one diagram for both groups. GOLD recommends de-escalation in patients 'who have resolution of symptoms and may require less therapy'. This seems rather odd in a chronic progressive disease, but it seems to be an attempt to withdraw ICS in patients who are not exacerbating. There is no progression to triple therapy for breathless patients, only for those with frequent exacerbations. GOLD does stress that evidence from trials of de-escalation of ICS are limited. The PCRS also provides guidance on stepping down and withdrawal of inhaled steroids in appropriate patients (www.pcrs-uk.org/resource/stepping-down-inhaled-corticosteroids-copd).

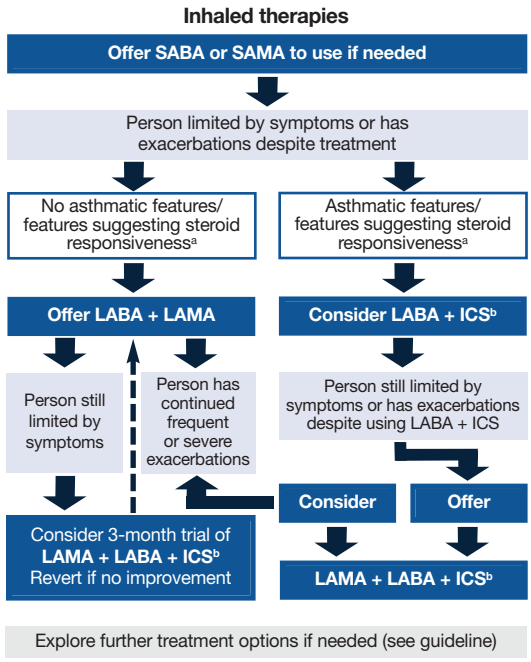
Combining escalation and de-escalation in the one diagram makes it look extremely complicated as it is not immediately obvious what the different coloured arrows represent and they seem to go round in circles (those who are red-green colour blind may also have difficulty). So what started off as a simplified process has become quite confusing to the eye and may limit its application in a primary care audience – especially a non-specialist one.

NICE 2019

NICE published a fairly comprehensive guideline update in December 2018. However, it became clear at consultation of the draft in the summer of 2018 that there were two significant areas not covered in the update – the role of triple therapy (whether in a single inhaler or multiple) and duration of oral corticosteroid treatment. NICE has therefore taken the unusual step of adding these two areas after publication of the 2018 guideline update, and will refer to the version to be published in July 2019, which will include these two new areas, as the 2019 update.

Like GOLD, NICE has abandoned treatment based on severity of FEV1 impairment that was central to the 2010 guidance. Like other guidance, NICE has opted to group COPD into treatable traits, but instead of breathlessness and exacerbations, has opted for the presence or absence of asthma-like features that would suggest steroid responsiveness, and then grouping breathless and exacerbating patients together (Figure 5). These asthmatic features include a previous secure diagnosis of asthma or atopy, high blood eosinophil count (although they do not quantify what high is), or substantial variation in FEV1 over time (at least 400 mL) or diurnal variation in peak expiratory flow (20%). This group may represent COPD-asthma overlap.

Figure 5 NICE inhaled therapies algorithm



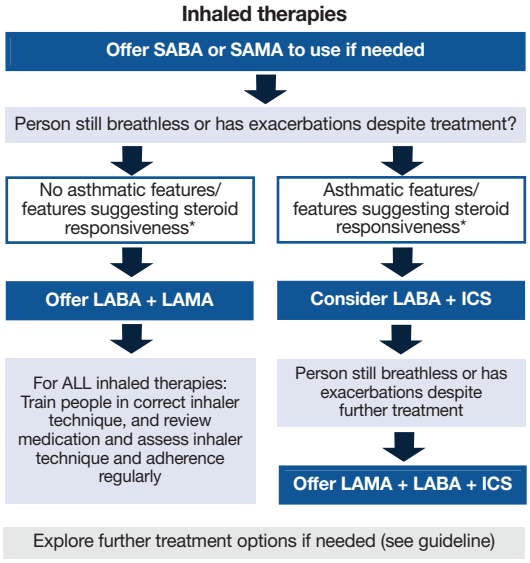
[a] Asthmatic features/features suggesting steroid responsiveness in this context include any previous secure diagnosis of asthma or atopy, a higher blood eosinophil count, substantial variation in FEV1 over time (at least 400ml) or substantial diurnal variation in peak expiratory flow (at least 20%)

[b] Be aware of an increased risk of side effects (including pneumonia) in people who take ICS

A major difference between NICE and GOLD is that, following SABA alone, whether the patient has breathlessness or frequent exacerbations, the first treatment is combined LABA+LAMA as opposed to long-acting bronchodilator monotherapy. The rationale given for this is that, in some studies, LABA+LAMA has additional benefits over monotherapy in terms of symptoms and exacerbations, and combined treatment may be more cost effective than monotherapy in the long run. Thus, there may be an overall cost saving in terms of consultations for exacerbations and hospitalisations. However, the evidence suggests that LABA+LAMA combinations offer limited improvements over monotherapy and we know that many patients are happy on monotherapy.

A disappointing change following the consultation in September 2018 is that, if there are continuing symptoms or frequent exacerbations, then a step up to triple therapy can be considered. For breathless patients, this should be for a 3-month trial, although if the patient is chronically breathless, it may be unrealistic to think that they will step down from this. Basically, this is the NICE 2010 recommendations all over again in a different guise. Regardless of severity, as long as you have breathlessness or exacerbations,

Figure 6 Original NICE 2018 inhaled therapies option (note no progression to triple therapy without asthma)



* Asthmatic features/features suggesting steroid responsiveness in this context include any previous secure diagnosis of asthma or atopy, a higher blood eosinophil count, substantial variation in FEV1 over time (at least 400ml) or substantial diurnal variation in peak expiratory flow (at least 20%)

you end up on triple therapy which is the same as in 2010. If a person with COPD has asthma and COPD, they are likely to progress to triple therapy. In the original 2018 version there was no triple therapy option for those without asthmatic features (Figure 6) (which is also wrong as frequent exacerbators will benefit from ICS but may not have asthma). NICE do acknowledge the increased risk of pneumonia in those taking ICS but feel that the benefits outweigh the risks.

The role of eosinophils in determining the use of ICS in COPD

GOLD 2019

GOLD has a whole section on blood eosinophil count predicting the effect of ICS in preventing future exacerbations. GOLD describes a continuous relation between eosinophil count and the effect of ICS starting at 100 cells/µL and plateauing at 300 cell/µL, suggesting that the higher level can be used to identify patients who are most likely to benefit from ICS. But they suggest that ICS are used as an addition to regular bronchodilator treatment in this group rather than as a starting treatment.

NICE 2019

NICE only briefly mentions eosinophils in the context that this might identify patients who have asthmatic features as a guide to who may benefit from ICS. However, they do not address those who may not have asthmatic features but who have frequent exacerbations despite regular bronchodilator therapy, which is the group that GOLD has highlighted. A 'higher blood eosinophil count' is mentioned in the algorithm but there is no guide as to what 'higher' means.

PCRS

The PCRS acknowledges that there is still some debate on the use of eosinophils to determine the use of ICS in COPD and we have published our own second opinion on this topic (www.pcrs-uk.org/resource/second-opinion-use-blood-eosinophil-count-criteria-ics-use).

GOLD or NICE?

We now have two new sets of guidance which still do not have a consensus. The NICE 2019 (draft version in consultation in February) seems to be NICE 2010 in a different guise, with all roads – once again – leading to triple therapy. The consensus view on the role of ICS in COPD is in the reduction of exacerbations and not in the treatment of breathlessness. NICE does recommend that, when using triple therapy for breathlessness, there should be a review after 3 months to check efficacy, but in reality many patients may remain on triple therapy.

Some may argue that the jump straight to LABA+LAMA is a good thing, to go for maximal treatment right from the start, albeit at a cost disadvantage. However, diagnosing patients earlier (which is in the NHS Long Term Plan) will mean that they may not be very symptomatic and may not require combination treatment as there are patients who are managing very well on monotherapy at present. So not having this as an option to initiate and then progress treatment when more symptomatic will seem strange to some.

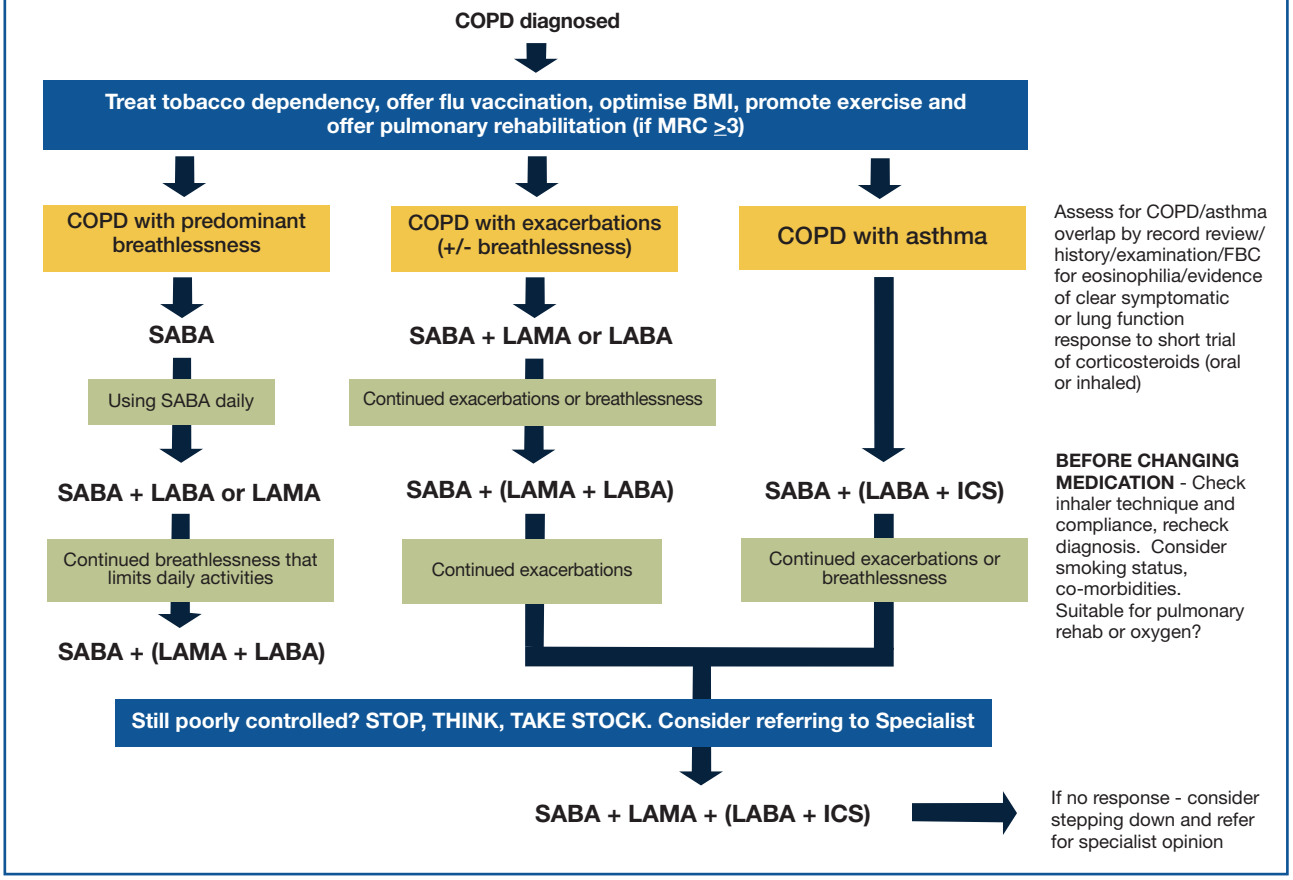
GOLD seems to be a bit more logical in its division into treatable characteristics (whereas NICE just differentiates between people with asthma with fixed obstruction and non-asthmatics). GOLD also has progression of treatment which follows what we generally currently practise, but does not recommend (and in fact discourages) triple therapy in patients with just breathlessness. However, to arrive at this point, you have to interpret the rather confusing follow-up algorithms.

Thus both guidelines lead to an element of confusion, so what should primary care practitioners do?

The solution?

A viable solution (without too much bias) is actually still the PCRS treatment algorithm published in 2017 in the 'Going for GOLD' PCRU article (Figure 7).

Figure 7 PCRS 'Keeping it Simple' approach



The 'Keeping it Simple' approach embraces all three of the treatable traits addressed in GOLD and NICE: breathless patients, patients who have frequent exacerbations, and those who have asthmatic features. There is a common-sense progression of treatment that follows the evidence and at reduced cost compared with NICE. The treatment pathways for all three are a distillation of both GOLD and NICE. The breathless and exacerbator pathways agree with GOLD, and the asthmatic features pathway agrees with NICE. There is no progression of all traits to triple therapy, and there is overarching emphasis on non-pharmacological interventions (smoking cessation, vaccination and pulmonary rehabilitation) and review of diagnosis, inhaler technique, adherence and co-morbidities throughout. The only item missing perhaps is a clear cut-off for eosinophil count, but that is another debate.

Figure 7 combines the good elements of both GOLD and NICE in a single, clear, simple to follow treatment algorithm. Thus, in 2017, the PCRS were able to presage the 2019 guidelines of both GOLD and NICE. Would be it too cheeky to suggest that they saw the light and followed PCRS?

Major differences in the advice on how to manage COPD from reputable guideline providers are a problem for primary care. They reflect limitations in the available evidence and difficulties in its interpretation. This article has outlined what we, as a group of professionals experienced in the management of COPD, consider to be a practical way forward in reconciling this conflicting advice and one that is consistent with the evidence base.

In summary, our view is that the PCRS 'Keeping it Simple' approach may be the most suitable and the easiest one to adopt in a primary care setting.

Acknowledgement
GOLD figures reproduced with permission 2019. Global Initiative for Chronic Obstructive Lung Disease

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Date of Preparation: April 2019 Version 1

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CIRCASSIA

Become a quit catalyst

Tobacco dependency is a long-term relapsing condition that usually starts in childhood

Noel Baxter *Chair PCRS Executive*

Last month we launched our Pragmatic Guide to Tobacco Dependency[1] and I am delighted to be able to alert you to the guide and tell you about our plans to ensure the guide gains a broad reach and help you to take a key role supporting your patients and your colleagues to find their role to help people quit.

The pragmatic guide is a practical, immediately implementable, evidence-based framework to enable healthcare professionals to routinely identify smokers, encourage a quit attempt and support that quit attempt within the real-world context of their own professional sphere. It was developed by an expert group of fifteen individuals[2] (https://www.pcrs-uk.org/tobacco-dependency-guide-contributors) with expertise in supporting smokers to quit in primary, community, acute physical and mental health settings, and in tobacco dependence research, teaching, public health and policy.

The guide is relevant to any health professional working with patients or clients who wants to do better in treating tobacco dependence and for policy and decision makers in the health care system responsible for improved value.

The guide is the product of evidence review, debate about current practice and the environment and synthesis of messages that have been tested subsequently by stakeholders in the health system for the purposes of endorsement and dissemination. Where evidence did not exist, or was not wholly applicable, the decision-making process has been highlighted and a pragmatic solution offered.

[Figure 1] Within the guide we provide advice and information on assessing the level of dependence, the management of tobacco dependency, and how to instigate and support a quit attempt for more information on supporting a quit attempt see (https://www.pcrs-uk.org/resource/instigating-quit-attempt). We provide advice on treatment options for different types of smokers and through examples and case histories we discuss how to ask difficult questions and to make easier what you might anticipate being a difficult conversation.

Included in the guide is information on exhaled carbon monoxide testing (table 1). The expert group also considered and ranked the strength of clinical evidence and the clinical utility of each intervention recommended by current NICE[3] guidance (see Table 2 and 3).

Figure 1: Instigating a quit attempt

Start with Very Brief Advice (VBA) on smoking

ASK : ADVISE : ACT

Using VBA does not depend on the person's readiness to quit and you do not need to assess it before you start

VBA is a simple and powerful approach designed to be used opportunistically in less than 30 seconds in almost any consultation with a smoker. VBA can be a powerful tool and its use as an intervention should be taken as seriously as prescribing a medicine.

For more information on **Very Brief Advice** see https://www.pcrs-uk.org/resource/instigating-quit-attempt

ASK and record smoking status

What it is...

- Are you still smoking?
- Do you smoke at all?
- How's the stopping smoking going?

What it is not...

- Do you want to stop smoking?
- How much do you smoke?
- Why are you still smoking?
- What do you smoke?

It is important not just to ASK but to record smoking status so that if someone says they are smoking they can be given VBA when they are seen again.

ADVISE on how best to stop

What it is...

- Did you know the most effective way to stop smoking is with a combination of support and medication? Both are available on the NHS, and this combination makes you much more likely to succeed in quitting

What it is not...

- You need/have to stop smoking
- If you don't stop it will kill you!

The ADVISE part does not involve advising smokers to stop. Instead it is simply advising HOW best to stop i.e. with behavioural support and medical treatment.

ACT to signpost best available support and treatment

Your patient does not want to take action...

- OK that's fine. If you do change your mind at any time don't forget we are always ready to help you quit

Your patient does want to take action...

- That's great news! All you need to do is book an appointment with my colleague who can give you all the treatment and support you need to help you quit

The ACT part is to direct the smoker to the best available support and treatment to help them quit. Ideally this would be from a stop smoking service or trained stop smoking advisor. If this is not available locally you can recommend that they make a dedicated appointment with yourself or an appropriate member of the practice team. You or they can then go through treatment options provide prescriptions and help support them with a few appointments while they quit.

Table 1: Exhaled carbon monoxide testing

The exhaled carbon monoxide (CO) test[4] detects CO inhaled in the last 12 hours. Higher levels (parts per million) equate with greater inhalation of tobacco smoke assuming the cause is tobacco smoking. It must be noted that the exhaled CO test indicates recent exposure to CO and will not indicate smokeless tobacco use and is not a measure of dependency. The BLF recommend a cut-off of 5 ppm or above as indicated the possibility of smoking and of 10 ppm or above as indicating the patient is a smoker.

Table 2: NICE recommended stop smoking interventions (as of March 2018)

Evidence-based intervention	Details
Behavioural support	Individual or group face-to-face session with a counsellor trained in smoking cessation. Usually combined with pharmacotherapy
Varenicline (oral tablet)[a] (pharmacotherapy)	12–24-week course (usually started 1–2 weeks before target stop date) • **Initial dose**: 500 micrograms for 3 days • **Then:** 500 micrograms twice daily for 4 days • **Then**: 1 mg twice daily for 11 weeks Effectiveness improved when used in combination with behavioural support
Nicotine replacement therapy (NRT) (pharmacotherapy)	NRT products licensed for smoking cessation in the UK include: • Dermal patch • Gum • Lozenge • Mini lozenge • Sublingual tablet • Inhalator • Nasal spray • Oral spray • Oral film Combination of two or more forms of NRT is routinely recommended All forms of NRT are prescribable and OTC NRT has been shown to have relatively poor efficacy Effectiveness improved when used in combination with behavioural support
Bupropion (oral tablet)[a] (pharmacotherapy)	Adults (usually started 1–2 weeks before target stop date): • **Initial dose**: 150 mg for 6 days • **Then**: 150 mg twice daily for 7–9 weeks • **Discontinue** if abstinence not achieved at 7 weeks Elderly: As above but maximum daily dose of 150 mg per day Effectiveness improved when used in combination with behavioural support
e-Cigarettes	Nicotine containing e-cigarettes have been shown to be effective for smoking cessation but none are currently available with a license

[a] Refer to the product information in the British National Formulary for specific information on dosing, drug interactions and side effects;
NRT, nicotine replacement therapy; OTC, over-the-counter

Table 3: The evidence and usability of the interventions

Intervention	Strength of evidence[a]	Improvement in success rates when used appropriately[b]	Clinical utility
Pharmacotherapy plus specialist behavioural support	A	200–300%	A
Pharmacotherapy with HCP endorsement	B	50–100%	B
Behavioural support from a trained stop smoking practitioner	B	Unknown	C
Quitting with the help of e-cigarettes	C	Unknown	D
NRT obtained OTC	D	Unknown	E
Unassisted quit	E	Unknown	E

[a] A defines strongest supporting clinical evidence and E defines the weakest supporting clinical evidence

[b] Assessment of improved success rates complied by Professor Robert West based on combined evidence from peer reviewed publications and NICE Guidance

HCP, healthcare professional; NRT, nicotine replacement therapy; OTC, over-the-counter

Over the course of the next few weeks and months we will be introducing more tools including Twitter chats and community networking, videos, CPD modules, infographics and summary documents to help you to become a quit catalyst.

Do get involved and help this campaign to change the discussion about treating tobacco dependency. We know that our local authority colleagues have been squeezed and that services we were used to having are no longer the same. Whilst we will campaign to keep the right support services for smokers there is effective interventions we can all do as health professionals. It is a duty of care that we have and can make such a difference. Interventions that are known to work such as VBA can be 30 seconds long. If you don't believe it – do the training and have a go. If you want to feel more confident prescribing the right medicines and want to know the right thing to say to make the impact of that prescription go a little bit further then this guide can help you too.

VBA is a simple and powerful approach designed to be used opportunistically in less than 30 seconds in almost any consultation with a smoker. VBA can be a powerful tool and its use as an intervention should be taken as seriously as prescribing a medicine. For more information on Very Brief Advice see (https://www.pcrs-uk.org/resource/instigating-quit-attempt).

References
1. PCRS Tobacco Dependency Pragmatic Guide. 2019 https://www.pcrs-uk.org/resource/tobacco-dependency-pragmatic-guide
2. https://www.pcrs-uk.org/tobacco-dependency-guide-contributors
3. NICE Guidelines https://www.nice.org.uk/guidance/ng92
4. CO testing https://www.blf.org.uk/support-for-you/breathing-tests/exhaled-carbon-monoxide-test

Date of Preparation: March 2019 Version 1

The PCRS Respiratory Conference 2019

19th - 21st September, Telford International Centre

Put the date in your diary!

The must-attend event of the year for all healthcare professionals interested in developing best-practice and integrated respiratory care.

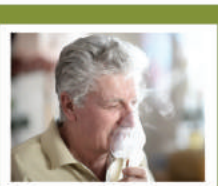
Enhancing • Integrated • Holistic • Life-Learning

The PCRS Respiratory Conference is the UK's leading respiratory conference.

Its aim is to inspire delegates to discover new ways of working with patients and colleagues, helping them to respond positively to the challenges of primary and community care. Attendees will be able create a brighter future for respiratory patients and a level of greater job satisfaction for themselves.







This is a Conference of benefit to all respiratory care professionals and people involved with multi-morbidities and health disciplines involving respiratory care.

Sessions are designed to be of equal interest regardless of where in the UK you are working. The Telford International Centre is an acclaimed conference venue, within easy reach from anywhere in the UK via road, train and air.

Register Now

To register for this event, please visit www.pcrs-uk.org/annual-conference to book your place. Registration rates are discounted if you are a PCRS Member.

Our 2019 Conference Partners

Our 2019 Conference Sponsors

The Primary Care Respiratory Society

Inspiring best practice in respiratory care

Become a PCRS Member - Join Us Today

Supporting you to deliver high value patient-centred respiratory care

It pays to join PCRS if you are a generalist or specialist professional involved in respiratory care in a primary or community setting.

Whether you're the lead for your practice or a specialist integrated care respiratory health professional, PCRS provides its members with a wealth of information, training and most importantly a friendly, welcoming multidisciplinary community of like-minded professionals who can help you to succeed.

PCRS Annual Membership is just £59 including VAT.

Visit us online
https://pcrs-uk.org/join

Benefits of Membership include

- Primary Care Respiratory Update (PCRU) magazine three times a year, packed with practical guidance, clinical updates and much more.
- In Touch, our fortnightly newsletter, making it easy to stay informed and up-to-date with the latest news and advice.
- Huge savings on registration rates for our National Respiratory Conference.
- Professional development support, including access to our clinical leadership programme.
- You will be supported by a friendly and accessible community of like-minded peers who are passionate about all areas of respiratory care.

PCRS is grateful to its corporate supporters including AstraZeneca UK Ltd, Boehringer Ingelheim Ltd, Chiesi Ltd, Circassia, Napp Pharmaceuticals and Novartis UK for their financial support.

Charity Number 1098117. Company Number 4298947. Website https://www.pcrs-uk.org
Contact us by phone 01675 477600 or email info@pcrs-uk.org

The PCRS Respiratory Conference 2019

19th-21st September, Telford International Centre

The PCRS Respiratory Conference 2019 aims to update delegates on the latest developments in respiratory care and inspire them with practical ideas they can take back to their practices and teams.

Supported by our conference partners and sponsors, the programme has a strong focus on integrated and multidisciplinary care.

Presentations will tie in with the latest thinking in the NHS Long Term Plan, the new GP contract and new ways of working in community partnerships. It has the patient and holistic care at its heart.

Dr Katherine Hickman, GP and Co-Chair of the Conference Organising Committee, says: "The programme reflects what PCRS is about – integrating multiple disciplines in order to provide first class respiratory care. It also champions the wider primary care team, the physiotherapists, pharmacists, paramedics, occupational therapists, physicians assistants and allied healthcare professionals that are all now integral to patient care.

Last year there was a new and strong pharmacist presence at the conference and the 2019 programme has been designed to appeal to as many different health disciplines as possible. We are hoping the conference will attract all members of the respiratory primary care team and our respiratory colleagues from secondary care.

> **"What an amazing conference! Thank you PCRS once again. So pleased to see a good mix of clinicians, including my fellow pharmacists!"**
>
> Darush Attar-Zadeh,
> Respiratory Lead
> Pharmacist, Barnet CCG

Katherine says what she most looks forward to at the PCRS conference is the opportunity to take back new ideas that can be implemented in her practice. "Many of us currently feel overwhelmed by the pressures of primary care. But if I can learn just one new thing that will make my practice work more efficiently or improve care, such as a relaxation technique that I can teach my patients to use at 3am in the morning instead of phoning 999 – that makes my life and theirs feel more manageable."

Anne Rodman, independent advanced respiratory nurse specialist and Co-Chair of the Conference Organising Committee, says: "I am looking forward to meeting new members and catching up with the rest of the respiratory family. As the only national primary care respiratory conference, this is the one opportunity when we can all get together and there is always a really positive buzz. In challenging times it's great to see people going away re-energised."

Our 2019 Conference Partners

Our 2019 Conference Sponsors

> “Such a valuable one hit update in all aspects of quality care for our respiratory patients. So well organised and slick and really enjoyable with the social aspects too!”
>
> Sarah, practice nurse, Suffolk

The programme

Clinical sessions

As well as focusing on the ‘patient with asthma’ or the ‘patient with COPD’ clinical sessions will look at broader issues such as breathlessness, the frail and elderly patient with co-morbidities and respiratory related allergy. There will be an update on getting asthma management right and reducing patients’ over reliance on short acting beta agonists (SABA).

> “I really enjoyed the workshops and particularly appreciated the one on interpreting spirometry. This is the ideal place for keeping yourself up to date and is an opportunity to look at the new research. It’s all here.”
>
> Ruth, respiratory clinical nurse specialist

- Managing cough and cough as a diagnostic symptom
- Respiratory-related allergy
- Respiratory disease in the context of co-morbidities and ageing
- Debate: NICE vs GOLD COPD – what’s new?
- Journal overload
- SABA guardians – creating the followers SABA over-reliance – the bottom up approach

Service development sessions

These sessions will focus on delivering sustainable change and improvement in respiratory care. They will showcase innovative and exciting new ideas for creating systematic change

Speakers will be discussing the latest thinking on topics ranging from group consultations, the NHS Long Term Plan, how the skills of allied healthcare professionals can be embedded in the respiratory pathway and how to better serve hard-to-reach patients in deprived areas.

- Respiratory service design for the hardly reached and seldom heard
- Respiratory care and the NHS Long Term Plan
- The allied health care professional embedded in the respiratory pathway – making the most of the available skills
- Making time for comprehensive respiratory care using the group consultation
- Respiratory diagnostic service design – the PCRS way
- Best Practice abstracts. These abstracts, which will describe projects in primary care such as a new service, a new way of working or the results of an audit, will give delegates an opportunity to share innovative ideas to take back home and implement in their own practices. Authors of abstracts accepted for the conference will be invited to prepare a poster for display throughout the conference and the authors of a selection of the highest scoring abstracts will have an opportunity for a short presentation and discussion of their work in a dedicated poster discussion session. Best practice / service development abstracts will be also featured in the service development sessions and a small number may be invited to give an oral presentation.

The deadline for submission of abstracts is June 30.

Workshop sessions

This stream provides a series of interactive practical workshops run in conjunction with Education for Health.

> “This is the tenth PCRS annual conference I have been to. It's inspiring and gives you lots of food for thought. I love meeting like-minded people who love respiratory care. You always learn something new when you come here.”
>
> Debbie, cardiorespiratory nurse consultant

A number of new sessions are being introduced this year with a focus on holistic aspects of patient care. Topics include helping patients to change their lifestyles, and how cognitive behavioural therapy, dancing, relaxation, breathing techniques and supported self management can improve the quality of patients' lives. Other workshops will give delegates an insight into using the Right Breathe app to find the right inhaler for patients and help them to use it correctly, the importance of nutrition and sarcopenia, spirometry interpretation and smoking cessation techniques.

- Helping people to change
- Using the Right Breathe App
- CBT in a 10 minute consultation
- Spirometry interpretation
- "Strictly" COPD
- Smoking cessation techniques hands-on session
- Getting your patient moving
- Relaxation and breathing techniques
- Nutrition, sarcopenia and respiratory disease
- Supported self-management

Plenaries

These sessions bring all delegates together to discuss thought-provoking, in depth respiratory issues

- Fit for the future- optimising respiratory care within the next 10 years of the NHS
- Managing breathlessness: the breathing, thinking, functioning approach
- Grand Round: Get moving on diagnosis

> "This is a really enjoyable event and I shall be going away with lots of ideas to take back to the practice and the CCG. This is also an opportunity to mix with colleagues working at the primary/secondary care interface, which is something you never normally get the chance to do."
>
> Simon, GP

> "Thanks PCRS, my first conference and found it so worthwhile. I now have lots of work to do when I get back home. See you next year."
>
> Kathryn, advanced primary care nurse practitioner

Npj Primary Care Respiratory Medicine research stream

npj | Primary Care Respiratory Medicine

The PCRS conference is the only UK event in the academic calendar with a stream entirely dedicated to primary care respiratory research showcasing the cutting edge of respiratory scientific research in primary care. It is a key meeting in the academic calendar for world-leading researchers and early career researchers alike to find out about what is going on elsewhere, share ideas and make new collaborations.

We welcome quantitative and qualitative research across the spectrum, from systematic reviews and database studies through to clinical trials and implementation studies. Abstracts on work in progress and study protocols are also welcome.

The deadline for submission of abstracts is June 30.

Sponsored symposia

Delegates will also be able to attend a series of sponsored symposia developed in conjunction with our pharmaceutical company sponsors.

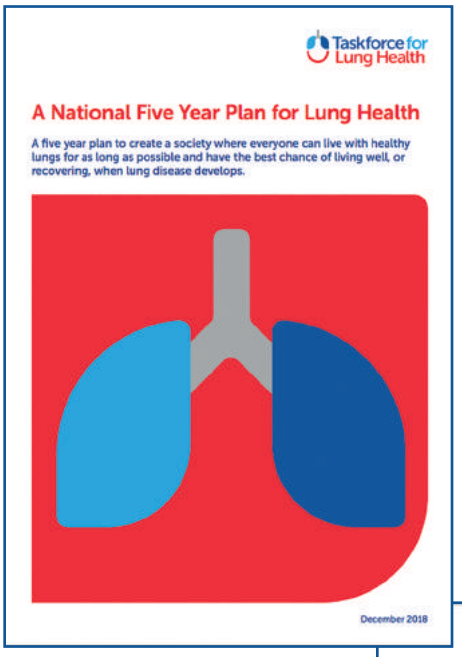
Please check online for details about speakers and updates to the programme at: https://www.pcrs-uk.org/conference-programme

Policy Round-Up

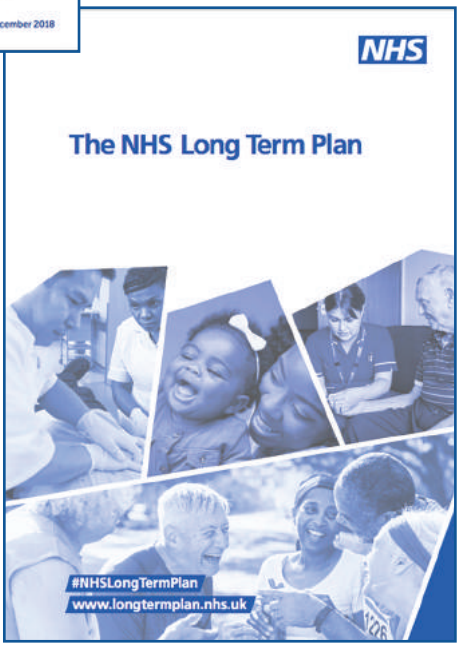
Bronwen Thompson, *PCRS Policy Advisor*

A summary of the latest developments in the UK health services, including any major new reports, guidelines and other documents relevant to primary care respiratory medicine

Getting respiratory disease firmly on the national agenda



A host of things have come together to put respiratory disease higher up the agenda in recent months. The Lung Health Taskforce (LHTF) delivered its 5 year plan to improve the outcomes for people with lung disease in December. The NHS Long Term Plan for England identified respiratory disease as one of its additional three priority areas in January. NICE started work on overhauling the Quality and Outcomes Framework (QOF) for respiratory disease in February. This focus on respiratory disease creates an unprecedented opportunity for some real change in service design, more effective care, and patient outcomes. The respiratory community needs to champion these opportunities both at national and local level.



PCRS has a seat at the table in all three forums, and is able to input a primary and community perspective to discussions.

- NHS Long Term Plan
- At NHS England, work is now being led by the respiratory team to develop specific plans to deliver improvements in areas mentioned in the LTP – measures to improve diagnosis; provide better training for those who deliver respiratory care; better uptake and availability of pulmonary rehabilitation and provide more appropriately resourced respiratory care closer to home.
- We are pleased to see that primary care networks will be a keystone in integrating services outside hospitals and we will be keen to support the distinct role of general practice within these organisations. PCRS will campaign for appropriate resources and education to sit alongside them.
- Lung HealthTaskforce
- The LHTF is moving into implementation phase and looking for synergies with the LTP for England where they have common aims, but will also be looking at how to roll out improvements in respiratory care in the other nations. As a stakeholder, PCRS will be actively involved in shaping the initiatives that are being developed.
- Respiratory QOF
- Last year, NICE conducted its first fundamental review of a disease area in QOF and as a

result the QOF indicators for diabetes from April 2019 will look quite different from those in previous years. They looked specifically at how they could address under-treatment in younger populations and over-treatment in older populations, in order that QOF would stimulate a more tailored approach to groups with different needs. Now NICE is turning its attention to respiratory disease, and is reviewing the indicators for asthma and COPD. We will be encouraging NICE to develop more outcome-focused indicators, and fewer process-oriented ones; to consider more of a quality improvement, and less of a 'tick box' approach; and to build on the work of the National Audit for COPD and asthma, where a great deal of learning has been done about appropriate coding in respiratory disease, and a quality improvement focus.

Tobacco dependency – getting the message across

PCRS published its Tobacco Dependency Pragmatic Guide at a time when there is a significant focus on how best to help people to quit smoking from a range of angles.

ADVISE on how best to stop

What it is...

- **Did you know the most effective way to stop smoking is with a combination of support and medication? Both are available on the NHS, and this combination makes you much more likely to succeed in quitting**

E-cigarettes have been declared more effective than other forms of nicotine replacement therapy (NRT) in helping people to give up smoking, and the UK evidence is that they are used more by older people than young people and children, so are unlikely to be used as a 'gateway' to smoking tobacco.

It is estimated that more than three million people in the UK currently vape and the vast majority of people do so in order to cut down or quit their smoking habit. However, the increasing popularity of e-cigarettes should not mask decades of failure to make good use of effective tools to reduce smoking, and the current failure to provide properly funded, comprehensive, evidence-based smoking cessation services.

It was positive therefore that the NHS Long Term Plan (NHS LTP) for England announced that from 2023/24, all people admitted to hospital who smoke will be offered NHS funded tobacco treatment services. They quote the success of the Ottawa model here, where proactive support is offered to in-patients to quit. An important element of the Ottawa model is the ongoing support for patients when they transition back to home and general practice, so this initiative will have important implications for primary care too.

As primary care has to think increasingly about co-morbidities, rather than single conditions, it is concerning that patients with serious mental illness (SMIs) and co-morbidities have worse outcomes than those who only have SMI – and a large part of that is due to the higher smoking rates in these patients. Extra efforts are therefore needed to support people with SMI to quit smoking and to access appropriate medication and support to do so. This should have wider benefits on their other co-morbid conditions too.

Inhaler devices – what's new?

For patients to get the maximum benefit from their prescribed treatments, they need the right medicines in the right devices. Clinical guidelines tend to focus on the medicines within inhalers, yet all healthcare professionals know that there is not a 'best' inhaler device – only the best inhaler device for an individual patient. Teaching and checking that a patient can use their inhaler is standard good practice, yet we know that many patients may not be getting optimal treatment because of the device they are using, or the way they are using it.

It is therefore very good news that a suite of short videos has been commissioned by the UK Inhaler Group and developed by AsthmaUK, which shows how inhaler devices are to be used correctly. This will be an invaluable resource both to clinicians and patients. These videos have had input from and been checked by both clinicians and manufacturers and follow a standard format. PCRS has endorsed them, and would encourage all healthcare professionals to use them with their patients, and

recommend patients use them as a reminder of optimal technique too. https://www.asthma.org.uk/inhalervideos

Inhaler devices have also been the subject of scrutiny by the NHS Sustainable Development Unit (NHS SDU), which is tasked with ensuring that the NHS is working today in a way that reduces its negative contributions to some key areas of environmental concern, in order that longer term problems are avoided. It is currently focused on four key areas: carbon, air pollution, waste and plastics.

Sustainable Development Unit

The Parliamentary Science and Technology Committee recommended in 2018 that there should be a reduction in the use of metered dose inhalers (pMDIs), since they are responsible for around 3.5% of NHS greenhouse gas emissions due to the propellants they use. pMDIs have therefore been identified as a 'carbon hotspot' in the NHS. They proposed that the NHS should work towards a target that at least 50% of inhalers prescribed should have low global warming potential by 2022. pMDIs currently comprise 70% of dispensed inhalers in England. This would mean increasing the use of inhalers which have propellants with low global warming potential, and inhalers which do not contain propellants at all – i.e. dry powder inhalers (DPIs).

The NHS SDU has subsequently convened an expert working group to consider the recommendations, and has agreed that the NHS should seek to reduce the overall global warming impact of inhalers, but does not consider that this should translate into a specific target for MDIs vs DPIs since this may run counter to patient choice and their individual clinical needs. However, they will encourage the promotion of the global warming properties of different inhalers to raise awareness of the issue of global warming in the context of inhaled treatments.

PCRS has been working closely with the NHS SDU and other respiratory stakeholders. Our prime concerns are to protect the important role that pMDIs play in delivering medicines effectively during respiratory exacerbations – particularly with spacers – and to warn against the blanket 'switching' of patients to alternative devices rather than taking a patient-by-patient approach. The NHS SDU is also looking into recycling schemes for inhalers to reduce the volume of plastic devices that end up in landfill sites, and to minimise the amount of propellant retained in MDIs when discarded by getting patients to exhaust the contents before disposing of them. This in itself is a target for waste reduction by teaching people how better how to recognise when their inhalers are empty. PCRS supports any measures to reduce harm to the environment, and waste, as long as the clinical needs of patients are still treated as paramount.

We have decided to support the SDU position paper, and are cooperating with this agenda.

PCRS working to influence policy in development

The last 10 years have seen a huge shift in getting the primary care voice heard when respiratory policy is being developed. PCRS has placed a high priority on this aspect of its work and will continue to do so. A policy lead on the Executive Committee provides high level leadership, and is supported by a clinical lead for policy – roles currently held by Dr Duncan Keeley and Dr Kevin Gruffydd Jones. There is also a multidisciplinary group of members who meet as the Policy forum, determining the Society's policy influencing priorities each year, and inputting regularly to consultations and to developing PCRS positions on relevant topics as they arise.

Clearly our ability to influence the agenda relies on having representation on a range of committees, and with a range of organisations. This means that many clinicians take time away from clinical work to represent the interests of primary and community care in this way. PCRS currently has representatives working with the following organisations and groups: NHS England respiratory team, Lung Health Taskforce, NICE forum reviewing respiratory QOF, National Audit for COPD and Asthma Programme, NHS RightCare, Public Health England, UK Lung Cancer Coalition, British Thoracic Society, Action for Smoking and Health (ASH). We are very grateful to all the members who support this work and represent PCRS on committees. This shows the huge commitment PCRS has to shaping national level policy and sharing its work with members so that members can cascade the work

down to local level and shape the implementation of that policy in their own healthcare environment.

PCRS is now at a stage where clarity about our position or stance in a wide range of areas is appropriate, and a suite of 'Briefing papers' which set out PCRS stances will be put onto the website in the coming months. To access these, just select the category 'PCRS position' in the search page under the 'Resources' drop down menu.

We are approaching a 'changing of the guard' later this year on the policy front, as Duncan Keeley will step back from his role as executive lead for policy, and Noel Baxter will take over this role when he steps down as Chair of PCRS. Bronwen Thompson will also be leaving her role as policy adviser in the autumn, having worked with PCRS in this capacity for 17 years. Thanks to both Duncan and Bronwen for leading this work and for helping to put PCRS on the map with policy makers and other respiratory stakeholder groups.

In brief ...

Recent work from Asthma UK and BLF

- Asthma UK report, ' The reality of asthma care in the UK', highlighted that basic levels of care are still not being provided to many patients
- Asthma UK report on prescription charges, 'Paying to breathe: why unfair asthma prescription charges must be stopped'; some medical conditions have exemptions from prescription charges, but asthma is not included
- BLF report 'A national five year plan for lung health' – sets out the key areas where improvement in respiratory care and outcomes is needed and contains 39 recommendations for how to achieve this

Respiratory work in development at NICE

- 2019 update to COPD guideline: guidance on use of triple therapy and oral corticosteroids in COPD – due summer 2019
- Lung cancer guideline update – due March 2019
- Lung cancer quality standard – due Dec 2019
- Obstructive sleep apnoea/hypopnoea syndrome and obesity hypoventilation syndrome in over 16s – due in 2020

Respiratory work in development at BTS

- BTS/SIGN asthma guideline update – summer 2019
- BTS bronchiectasis guideline – version for primary care – summer 2019
- BTS guideline on long term use of macrolides – June 2019

Date of Preparation: April 2019 Version 1

Respiratory Education and Training

Respiratory diseases such as asthma and COPD are some of the UK's most common Long Term Conditions.[1]
By developing essential respiratory clinical skills and knowledge, you will be better placed to ensure that your patients with respiratory diseases receive the individual treatment they need.

Education for Health offers a range of nationally recognised qualifications and a variety of study options including interactive eLearning, workshops and validated modules at levels 5, 6 and 7[2]. Our innovative teaching techniques enable you to combine work and professional development, studying at a time and location to suit you.

- Asthma, including Paediatric Asthma
- Allergy
- COPD
- Improving Inhaler Technique
- Interstitial Lung Disease
- Non-Invasive Ventilation
- Spirometry
- Respiratory Assessment, Diagnostics & more

[1]http://www.nice.org.uk/guidance
[2]Level 5 and 6 modules validated by The Open University, Level 7 modules accredited by the University of Hertfordshire

Visit: www.educationforhealth.org/respiratory
Call: 01926 838969
Email: contact@educationforhealth.org

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Journal Round-Up

Each month the Primary Care Respiratory Academy, in partnership with the *Primary Care Respiratory Update* Editorial Board, publishes a series of informative summaries of studies and reviews in areas relevant to respiratory health in a primary or community setting. The summaries can be found online at http://www.respiratory-academy.co.uk/clinical/journal-club/. Below is a selection of those published.

**** Editor's Choice ****

Chronic cough in Swiss bagpipe player
Valeria Schindler, Christoph Gubler, Alexander Turk, et al.
Gut 2018;67:1835. doi: 10.1136/gutjnl-2017-315420

Case studies can reveal interesting considerations for both the diagnosis and management of seemingly common conditions. Chronic cough can be a symptom of many conditions: chronic bronchitis, asthma, allergy, bronchiectasis, postnasal drip or gastro-oesophageal reflux disease (GORD). It can also be a side effect associated with prescribed medicines such as ACE inhibitors. In some cases, a persistent cough may be a symptom of a more serious condition such as lung cancer, heart failure, pulmonary embolism or tuberculosis.

In this unusual case report, published earlier this year, a 34-year-old man presented to the gastrointestinal (GI) clinic with chronic cough. These coughing episodes were exacerbated during periods in which he played bagpipes, as well as the morning after playing. In reviewing the patient's history, airway hyperreactivity was noted. Previous assessments excluded allergic bronchopulmonary aspergillosis and identified no pathological findings on CT.

Bronchoscopy with bronchoalveolar lavage (BAL) and mucosal biopsy showed no pulmonary aetiology, although BAL showed elevated macrophage and bacteria representative of the oral flora. The patient was previously prescribed budesonide and formoterol followed by 8 weeks of PPI therapy, both of which failed to reduce symptoms. After these tests, the patient was referred to the GI clinic who, after an unremarkable endoscopy, performed a high-resolution oesophageal manometry and 24-hour multichannel intraluminal impedance pH test.

The results of these tests demonstrated GORD. Interestingly, testing was also performed during bagpipe playing and two reflux episodes were noticed, which were followed by elevated distal oesophageal acid exposure. It was noted that, during bagpipe playing, abdominal/oesophageal pressure increased to 80–90 mmHg. The patient, rather than choosing pharmacologic intervention, modified his instrument to lower its resistance, and potentially the abdominal/oesophageal pressure. At a 7-month follow-up the patient reported resolution of his cough, and repeat testing showed a 30% reduction in abdominal/oesophageal pressure with the new bagpipe modifications. No reflux episodes occurred during bagpipe playing and the patient's acid exposure was reduced to below the criteria for GORD.

The authors concluded that, in patients who play wind instruments and have an inconclusive pulmonary work-up for cough, GI causes should be considered. This case demonstrates both the need to think more broadly about the potential causes for unexplained patient symptoms, as well as potential strategies for their resolution.

E-cigarette initiation and associated changes in smoking cessation and reduction: the Population Assessment of Tobacco and Health Study, 2013–2015
Kaitlyn M Berry, Lindsay M Reynolds, Jason M Collins, et al.
Tob Control 2019;1:42–9.
doi:10.1136/tobaccocontrol-2017-054108

Tobacco use is the leading preventable cause of death in the USA, responsible for more than 400,000 deaths annually. Fewer than one in 10 smokers successfully quit over the prior year, despite general awareness of the health benefits associated with smoking cessation. Prior studies looking at the role of e-cigarette use in cigarette cessation/reduction have largely relied on the analysis of non-representative samples that are impossible to generalise to the population at large. This study aims to look at the role of e-cigarettes in smoking cessation and changes in smoking intensity in adults in the USA.

The Population Assessment of Tobacco and Health (PATH) study was a large, nationally representative, cohort study designed to collect data on use patterns, risk perceptions, attitudes and health outcomes associated with tobacco products. Data from the PATH study collected in two Waves were used in this study. A sample of 5124 adults were aged 25+ years who were not current e-cigarette users at Wave 1. The study modelled 30-day cigarette cessation and substantial reduction in cigarette consumption as a function of e-cigarette initiation between surveys. Participants were 55% male and predominantly non-Hispanic white (69.8%); 75% of the sample was aged <55 years. Most cigarette smokers were everyday smokers (82.4%) but consumed less than one pack per day (63.7%).

Between Waves 1 and 2, 6.9% of cigarette smokers who were not current e-cigarette users transitioned to former smokers. Cigarette smokers who initiated e-cigarette use between waves and reported they used e-cigarettes at Wave 2 had 7.88-times the odds of 30-day cigarette cessation compared with non-users of e-cigarettes at Wave 2. Cigarette smokers who began using e-cigarettes every day and did not achieve cessation had 5.70-times the odds of reducing their average daily cigarette use by at least 50% between Waves 1 and 2 compared with e-cigarette non-users.

Strengths of the study included: (1) evidence was provided on the association between e-cigarette initiation specifically and cigarette cessation/reduction; (2) the data came from a large, nationally representative survey of the adult population; (3) the analysis was robust to all sensitivity checks conducted. Limitations included: (1) analysis was dependent on self-reported data; (2) the study could not conclude that e-cigarette initiation preceded cigarette cessation or reduction; (3) the conclusions were limited by a relatively short follow-up time.

The study concluded that daily e-cigarette initiators were more likely to have quit smoking cigarettes or reduced use compared with non-users. Less frequent e-cigarette use was not associated with cigarette cessation/reduction. The results suggest incorporating frequency of e-cigarette use for developing a more thorough understanding of the association between e-cigarette use and cigarette cessation.

Matched cohort study of therapeutic strategies to prevent preschool wheezing/asthma attacks
Jonathan Grigg, Anjan Nibber, James Y Paton, et al.
On behalf of the Respiratory Effectiveness Group.
J Asthma Allergy 2018;11:309–21.
doi.org/10.2147/JAA.S178531

Wheezing and asthma attacks affect as many as one-third to one-half of children in the USA and Western Europe at least once in their first six years. Their prevention is an active area of study and debate, but asthma management guidelines offer little definitive guidance for recurrent attack prevention in this age group.

Clinical trials suggest that, for children at high risk of developing persistent asthma who are asymptomatic between wheezing episodes, therapy with daily low-dose or intermittent high-dose inhaled corticosteroid (ICS) reduces attack rates as well as symptom burden during attacks. A 2014 study reported no overall benefit of intermittent therapy with a leukotriene receptor antagonist (LTRA) in preschool wheeze. There is also speculation that administration of an extrafine (EF)-particle ICS could be more beneficial for the youngest children. Overall, the marked heterogeneity from all these studies indicates the need for further investigation.

The aim of this study was to assess the effectiveness of ICS or LTRA for preventing wheeze/asthma attacks in pre-schoolers with recurrent wheeze when added to a short-acting beta agonist (SABA). The study also tested the hypothesis that the use of EF-particle ICS would be associated with better outcomes than fine-particle ICS.

Electronic medical records from the Optimum Patient Care Research Database were used to set up a matched cohort analysis employing four two-way matched comparisons: (1) all ICSs by pMDI vs SABA; (2) LTRA vs SABA; (3) LTRA vs all ICSs by pMDI, and (4) EF-particle ICS vs fine-particle ICSs by pMDI. Children initiating ICS or LTRA were matched 1:4 to those prescribed only SABA. The primary study endpoint was a wheezing/asthma attack, defined according to the American Thoracic Society/European Respiratory Society criteria.

There was no significant difference in the odds of a wheezing/asthma attack during the outcome year between

the matched cohorts in either of the two comparisons between controller therapy and SABA. Neither was there any significant difference in the odds of a wheezing/asthma attack during the outcome year between the matched cohorts in either of the two controller therapy comparisons. The authors highlighted three limitations of their study: (1) the study may represent children on the milder end of the spectrum; (2) they could not ascertain whether children had persistent symptoms or were symptom-free between wheezing/asthma attacks; and (3) the study authors could not assess medication adherence.

In conclusion, this study found no evidence that stepping up therapy, compared with as-needed SABA, reduces wheezing/asthma attacks in a diverse population of preschool children with at least two documented prior wheezing episodes. The fact that antibiotics are frequently prescribed for preschool wheeze (thought to be attributable to viral infections) suggests the need for further attention.

There is a need for better understanding of disease patterns and better targeting of existing therapies, and a 'wait-and-see' approach may be clinically prudent.

The Manchester Respiratory-related Sleep Symptoms (MaRSS) scale for patients with COPD: development and validation
Naimat Khan, Jørgen Vestbo, Adam Garrow, et al.
Intl J Chron Obstruct Pulmon Dis 2018;13:3885–94.
doi.org/10.2147/COPD.S171140

Disturbed sleep is associated with anxiety, depression and pain, and is predictive of exacerbations, emergency hospital visits and poor outcomes in people with COPD. A systematic review recently published by the authors on this paper highlighted a deficiency of validated measures for sleep disturbances. To date, sleep research in COPD has depended on generic PROM that are not specific for people with COPD and that have not been validated. The resulting estimates of prevalence and impact of sleep disturbances have been inconsistent and, in the absence of validation, the meaning of inconsistencies cannot be assessed. Existing instruments have not been developed specifically for patients with COPD, and therefore do not include items of potentially important respiratory significance, which may provide useful effectiveness data for COPD treatments.

The objective of the present study was to develop and test the reliability and validate a new PROM to assess respiratory symptoms-related sleep disturbances specifically in patients with COPD. To do this, two separate studies were performed, each approved by the relevant ethics research committee, and each having obtained signed consent from all participants.

A 26-item list was produced by 36 COPD patients and nine age-matched controls. The cross-sectional study involved 203 COPD patients and 50 age-matched controls. The final unidimensional scale covered breathlessness, chest tightness, cough, sputum production, lack of sleep and medication use. The MaRSS scores significantly correlated with sleep problems.

The findings of this study indicate that the MaRSS addresses the limitations of generic sleep measures highlighted in the authors' previous systematic review. It is more responsive to change due to respiratory-related sleep problems because it focuses on respiratory-related symptoms. This tool opens up the possibility of classifying different phenotypes of patient based on disease-specific characteristics, which may respond to different treatment strategies and targeted sleep-based interventions.

A limitation of this study was that participants were recruited using a single database of COPD patients living in Greater Manchester. However, one of the study's particular strengths was the inclusion on non-COPD control volunteers. More work is needed to confirm the usefulness of the MaRSS in intervention studies, to determine minimum important difference values and establish cross-cultural validity.

The association between recent hospitalised COPD exacerbations and adverse outcomes after percutaneous coronary intervention: a nationwide cohort study
Wei-Chieh Lin, Chang-Wen Chen, Chin-Li Lu, et al.
Intl J Chron Obstruct Pulmon Dis 2019;14:169–79.
doi.org/10.2147/COPD.S187345

Cardiovascular disease is one of the leading causes of death in mild-to-moderate COPD, and accounts for approximately one-third of mortalities in overall COPD patients.

There are many findings highlighting the detrimental impact of COPD exacerbations on patients with concomitant coronary artery disease (CAD), including those suggesting a link between COPD and the development of subclinical coronary atherosclerosis, CAD and myocardial infarction, and findings suggesting that the risk of myocardial ischaemia may be increased following an exacerbation of COPD.

Given the high prevalence of COPD and its potential risks in CAD patients, there has been considerable interest in exploring whether COPD might worsen the prognosis of percutaneous coronary intervention (PCI), given that it is the most commonly used revascularisation procedure. However, outcomes of patients experiencing recent hospitalised exacerbations before PCI have not been studied.

The National Health Insurance Research Database of Taiwan was used in a retrospective cohort study to test the hypotheses that COPD and recent hospitalised exacerbations might be associated with increased risks of hospital mortality and adverse outcomes during the follow-up period after PCI.

The study cohort was comprised of 215,275 adult patients who underwent first-time PCI between 1 January 2000 and 31 December 2012. Of these, 15,485 had COPD. And of these, 2489 had been hospitalised for an exacerbation within one year prior to PCI. The risks of hospital mortality, overall mortality and adverse cardiovascular outcomes after PCI in relation to COPD, and the frequency and timing of recent hospitalised exacerbations within one year before PCI, were estimated.

The study authors found COPD to be associated with increased risks of hospital mortality, overall mortality, ischaemic events, cerebrovascular events and major adverse cardiac and cerebrovascular events (MACCE) during follow-up after PCI. Regarding cerebrovascular events, ischaemic rather than haemorrhagic stroke was the more likely. In COPD patients, recent hospitalised exacerbations further increased the risks of overall mortality, ischaemic events and MACCE following PCI. Patients with more frequent or more recent hospitalised exacerbations had a trend towards higher risks of these adverse events, especially those with two or more exacerbations within one year or an exacerbation within one month before PCI.

The conclusion is a call for integrated care to alleviate COPD-related morbidity and mortality after PCI, especially for those with a recent hospitalised exacerbation.

Effects of community-based pulmonary rehabilitation in 33 municipalities in Denmark – results from the KOALA project
Nina Godtfredsen, Tina Brandt Sørensen, Marie Lavesen, et al.
Intl J Chron Obstruct Pulmon Dis 2019;14:93–100.
doi.org/10.2147/COPD.S190423

In patients with moderate-to-very severe COPD, the beneficial effects of hospital-based pulmonary rehabilitation (PR) on exercise capacity, perception of dyspnoea and quality of life is well documented. However, the evidence is limited for patients with less advanced disease, even more so when the effects of intervention are in a home-based or community-based setting.

Since 2006, it has been recommended in Denmark that all COPD patients with a dyspnoea grade of 3 or above (according to the MRC scale) be offered PR: mild-to-moderate in a primary care setting and severe-to-very severe in hospital-based outpatient clinics. These rehabilitation programmes have been in place in all 98 municipalities in Denmark since 2007. The KOALA database (Boehringer Ingelheim Denmark A/S) was developed and offered to all municipalities to enter data and clinical parameters.

The aim of the non-randomised, real-world study reported here was to analyse the efficacy of community-based rehabilitation in a large COPD patient population on exercise capacity (measured using the 6-minute walking distance test) and health-related quality of life (measured using the 15D questionnaire) as primary endpoints.

Data from 33 participating centres were reported, and included 803 COPD patients who were referred to and participated in PR between October 2011 and August 2012. Of these, 581 completed the full rehabilitation programme of 64 days.

Community-based PR showed statistically significant and clinically meaningful effects of the outcomes (above). These results were almost identical to other recently published studies of community-based multicentre PR from Australia and the UK.

Strengths of the study included: (1) a reflection of current clinical practice, and therefore greater relevance than the selected populations normally recruited to clinical trials, and (2) a large number of participants from many centres. Among the study's limitations were: (1) absence of follow-up visits after completion of the rehabilitation programme; (2) no registration of healthcare utilisation; (3) some missing data on lung function measurements, and (4) no recording of reasons for drop-out during the PR.

The authors concluded that PR is effective when conducted in community-based facilities and that a significant improvement in walking distance of 45 metres is similar to current knowledge regarding PR in a less intensive setting. There is also a positive effect on quality of life, most notably in patients with the largest symptom burden.

Disease awareness in patients with COPD: measurement and extent
Ilaria Baiardini, Paola Rogliani, Pierachille Santus, et al.
Intl J Chron Obstruct Pulmon Dis 2019;14:1–11.
doi.org/10.2147/COPD.S179784

Patient awareness of COPD is poorly investigated, and no validated questionnaires are available. The greater the patient awareness of the disease and its management, the more likely their active engagement will be, resulting in better COPD care. While patient education is essential for successful management, the concept of 'awareness' can be extended beyond information and knowledge of the diagnosis and disease fea-

tures. It could also include domains that establish the full awareness of the disease, its consequences and burden, as well as the understanding of the need for a therapeutic regimen.

The aims of this study were two-fold: (1) to develop a tool for measuring different dimensions of a COPD patient's awareness (Disease Awareness in COPD Questionnaire, DACQ) and (2) to validate the tool in patients participating in the Satisfaction and Adherence in COPD Treatment (SAT) study.

DACQ comprises 20 statements (generated by physicians and experts in health psychology and based on patients' input and literature search), grouped into four domains, that gauge the COPD patient's knowledge, acceptance and perception of COPD, and their awareness of treatment needs. SAT study patients were asked to complete the questionnaire with the study items.

DACQ provides both a total score and specific scores about (1) the mastery of a correct knowledge on COPD characteristics, (2) the level of subjective view on necessity and role of COPD therapy, and (3) how the patient perceives COPD in terms of features and consequences, and (4) the individual acceptance of thoughts and feelings related to COPD. DACQ was easily understood by patients and showed good reliability in terms of internal consistency.

These findings highlighted that, while the patients' knowledge about COPD is satisfactory, their acceptance and perception of the disease need to be enhanced. This incomplete awareness of patients cared for in a specialist setting provides the basic data for developing strategies for improving disease awareness in COPD patients.

Effect of theophylline as adjunct to inhaled corticosteroids on exacerbations in patients with COPD
Graham Devereux, Seonaidh Cotton, Shona Fielding, et al.
JAMA 2018;320:1548–59
doi:10.1001/jama.2018.14432

Chronic obstructive pulmonary disease (COPD) remains a growing global health concern, with exacerbations being associated with high morbidity and mortality. Research continues to explore novel, optimal therapeutic options for COPD patients to aid the improvement of COPD management and outcomes. Theophylline has long been used to treat COPD; however, high blood concentrations have been related to adverse effects. Recent data have highlighted a potential role for low-dose theophylline in combination with inhaled corticosteroids (ICS), demonstrating up to a 10,000-fold increase in the anti-inflammatory effects of ICS therapy. Despite this, the evidence to support the clinical relevance of low-dose theophylline has not been fully established.

In this double-blind, placebo-controlled, randomised study, researchers aimed to investigate the clinical effectiveness of low-dose theophylline in combination with ICS therapy in patients with COPD and frequent exacerbations. The clinical trial recruited 1,578 participants across 121 UK primary and secondary care sites, all of which had COPD with a forced expiratory volume in the first second (FEV1)/forced vital capacity (FVC) ratio of >0.7 and at least two exacerbations in the previous year. Patients were randomised into two groups: treatment group (n=791) who received low-dose theophylline (200 mg) either once or twice a day for 1 year or placebo group (n=787).

The results demonstrated that the addition of low-dose theophylline to ICS therapy did not significantly decrease the number of recorded exacerbations (moderate to severe) in adults with COPD. A total number of 1,727 exacerbations were recorded in the theophylline group and 1,703 exacerbations were recorded in the placebo group. Based on these findings, the researchers concluded that low-dose theophylline as an adjunctive therapy to ICS was not clinically effective in the prevention of COPD exacerbations.

Secondhand exposure to aerosols from electronic nicotine delivery systems and asthma exacerbations among youth with asthma
Jennifer Bayly, Debra Bernat, Lauren Porter, et al.
Chest 2018 (ePub ahead of print)
doi:10.1016/j.chest.2018.10.005

E-cigarettes are continually rising as a favourable option for smoking cessation. However, a deep understanding of their long-term safety is still lacking. Recently, interest has grown in the impact of secondhand aerosol exposure to patient health, particularly in those affected by respiratory disease.

To address this question, this study examined the relationship between secondhand electronic nicotine delivery system (ENDS) aerosol exposure and asthma exacerbations in the young. Using data collected from the 2016 Florida Youth Tobacco survey, researchers analysed participant asthma status and exposure to secondhand ENDS aerosol. Analyses were restricted to those aged 11–17 years old with a self-reported diagnosis of asthma (n=11,830).

The results demonstrated that of those surveyed, 21% of those with asthma reported an asthma exacerbation within the previous 12 months. In addition, 33% of those surveyed reported secondhand exposure to ENDS aerosol. After controlling for demographics, tobacco product use (including ENDS) and secondhand tobacco smoke exposure, the association between secondhand ENDS aerosol exposure and asthma exacerbations remained significant.

Based on these findings, the researchers concluded that such exposure may be related to an increase in asthma symptoms in asthmatic patients between the ages of 11 and 17. However, although compelling, the researchers did emphasise that the findings only demonstrated an association as opposed to a causal relationship. Despite this, they emphasised the importance of counselling asthmatic youths on the potential risks associated with ENDS aerosol exposure.

Concomitant diagnosis of asthma and COPD: a quantitative study in UK primary care
Francis Nissen, Daniel Morales, Hana Mullerova, et al.
Br J Gen Pract 2018;68(676):e775–e782
doi:10.3399/bjgp18X699389

An accurate diagnosis of asthma and chronic obstructive pulmonary disease (COPD) is essential for the treatment of patients, reducing the frequency and severity of exacerbations and improving the overall quality of life.

The differential diagnosis of asthma and COPD relies on clinical presentation, triggering factors and demonstration of airflow obstruction. The existence of asthma–COPD overlap syndrome (ACOS) is controversial, with some guidelines, for example, classifying asthma with chronic airways obstruction as COPD. Studies looking at unblended populations of patients with asthma and patients with COPD keep the diseases distinct, and the prevalence of a concomitant diagnosis varies greatly in different studies.

The aim of this quantitative study in UK primary care was to quantify concomitant prevalence and to determine the extent of possible misdiagnosis and missed opportunities for diagnosis.

UK electronic health records of diagnosed populations of only those patients with asthma and patients with COPD from two previous validation studies were used to define the prevalence of concomitant asthma and COPD.

Patients with validated asthma and patients with validated COPD were identified from the UK Clinical Practice Research Datalink (CPRD) in separate validation studies, and confirmed with GP questionnaires. Data for asthma were collected for two years from December 2013, and for eight years from January 2004 for COPD. The prevalence of concurrent asthma and COPD was based on CPRD coding, GP questionnaires and additional requested information.

The study found that concurrent asthma and COPD diagnosis affects a minority of patients with either asthma (14.8%) or COPD (14.5%). The conclusion is that asthma may be over-recorded in people with COPD in electronic health records.

Safety of benzodiazepines and opioids in interstitial lung disease: a national prospective study
Sabrina Bajwah, Joanna Davies, Hanan Tanash, et al.
Eur Respir J 2018 (ePub ahead of print)
doi: 10.1183/13993003.01278-2018

Chronic breathlessness is a near-universal symptom of advanced fibrotic interstitial lung disease (ILD). Guidelines recommend the use of benzodiazepines (BZDs) and/or opioids for symptomatic management; however, recent studies have suggested a link between the use of these therapies and increased hospital admission or death in patients with chronic obstructive pulmonary disease (COPD). This study is the first to examine the association of BZDs and opioids with these adverse outcomes in patients with fibrotic ILD.

The study included 1,603 patients, all starting long-term oxygen therapy (LTOT). BZDs were used by 196 (12%) patients, opioids by 252 (16%), and both by 59 (4%). There was no difference in baseline lung function between patients taking BZDs or opioids, compared with non-users.

Neither BZD nor opioid treatment had any significant association with hospitalisation rates. This was true even when looking at high-dose versus low-dose therapies. In general, opioids seemed to be associated with increased mortality, but this association disappeared when looking at adjusted risks for each dose level. BZD treatment was associated with increased mortality, in a dose-dependent fashion.

In summary, opioid treatment was not associated with an increased risk of hospitalisation or death in advanced fibrotic ILD patients. High-dose BZD treatment was linked to increased mortality. However, the authors postulate that this could be confounded by the increased use of BZDs at the end of life, to relieve terminal anxiety-related breathlessness. Overall, the use of BZD and opioids in fibrotic ILD was lower, suggesting that this patient group may be currently undertreated and could benefit from holistic management of symptomatic breathlessness.

Covel pharmacist-led intervention secures the minimally important difference (MID) in Asthma Control Test (ACT) score: better outcomes for patients and the healthcare provider
Michela Tinelli, John White and Andrea Manfrin
BMJ Open Respir Res 2018;5:e000322
doi: 10.1136/bmjresp-2018-000322

By 2025, an estimated 400 million people worldwide will be suffering from asthma, with a cost of €72 billion annually to the 28 countries of the European Union.

The long-term goals of asthma management, according to the Global Initiative for Asthma (GINA), are to achieve good symptom control and to minimise the risk of exacerbation, and therefore a key priority is the development of a simple and effective intervention for improving asthma control.

A previous cluster randomised controlled trial (C-RCT) in Italy (n=1263) has previously measured the effectiveness and cost-effectiveness of an innovative pharmacist-led intervention. Its primary outcome was asthma control, as assessed using the Asthma Control Test (ACT) score (ACT ≥20 representing good control) and its secondary outcomes were (1) the number of active ingredients, (2) adherence and (3) cost-effectiveness compared with usual care. The key results showed that (1) the intervention was effective (median score 19 before the intervention, 20 at 3 months post-intervention and 21 at 6 months post-intervention) and (2) the intervention was cost-effective – the probability of the intervention being more cost-effective than usual care was 100% at 9 months.

The aim of the study was to measure the impact of this intervention on the minimally important difference (MID) in asthma control (ie, looking at the proportion of patients reaching a three-point improvement in the ACT score). It also looked at the benefits of reaching clinical MID in terms of health outcomes for the patient and economic savings for the healthcare provider. For this study, a subset of the former study was used (n=816).

In demonstrating a MID in the ACT, an improvement in patients' health outcomes and a reduction of costs to the NHS, the pharmacist-led intervention explored in this study promotes a shift in the approach to good asthma control.

What is the impact of GOLD 2017 recommendations in primary care? A descriptive study of patient classifications, treatment burden and costs
Alicia Gayle, Scott Dickinson, Kevin Morris, et al.
Int J Chron Obstruct Pulmon Dis 2018;13:3485–92.
doi: 10.2147/COPD.S173664

The Global Initiative for Chronic Obstructive Lung Disease (GOLD) classification of chronic obstructive pulmonary disease (COPD) patients has undergone several changes over the past few years. In 2013, it was overhauled to focus on symptoms and exacerbation history, in addition to airflow limitation. The recent 2017 report went one step further and uses only symptom and exacerbation frequency to guide treatment.

This population-based study uses the Clinical Practice Research Datalink (CPRD) to examine whether a cohort of COPD patients could be classified into the new GOLD criteria based on their primary care records. It also evaluates the treatment cost implications of doing so.

A total of 19,268 patients were included. When GOLD 2017 grading was applied, there was a significant shift towards less severe grading compared with GOLD 2013. Under GOLD 2013, only 46% of patients were classified as GOLD A or B; with 2017 criteria, this increased to 86%. Most patients moved from group D to B (65%) and from C to A (74%).

Regarding treatment, 32% of all patients were prescribed triple therapy, including 22% of GOLD A and 43% of GOLD B patients. Total costs for all study patients under current therapy were estimated to be £8,614,020 per year. If the GOLD 2017 recommended treatments were applied, this could be reduced to £6,141,361 – a 29% decrease.

The findings of this study suggest that reviewing and reclassifying patients using medical records is possible in clinical practice. Revising therapy recommendations based on the new classification may reduce inappropriate prescribing of inhaled corticosteroids (ICS) and improve clinical outcomes.

Abbreviations

CAD = coronary artery disease

COPD = chronic obstructive pulmonary disease

DACQ = Disease Awareness in COPD Questionnaire

EF = extra fine

ICS = inhaled corticosteroid

LTRA = leukotriene receptor antagonist

MACCE = major adverse cardiac and cardiovascular events

MaRSS = Manchester Respiratory-related Sleep Symptoms scale

MRC = Medical Research Council

PATH = Population Assessment of Tobacco and Health

PCI = percutaneous coronary intervention

pMDI = pressurised metered dose inhaler

PR = pulmonary rehabilitation

PROM = patient-reported outcome measures

SABA = short-acting beta-agonist

SAT = Satisfaction and Adherence in COPD Treatment

Date of Preparation: April 2019 Version 1

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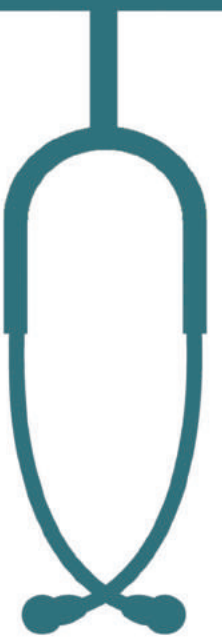

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Carol Stonham: respiratory champion and trailblazer

Respiratory nurse practitioner Carol Stonham will achieve two PCRS firsts when she takes over from Dr Noel Baxter as Executive Chair in September.

She will become both the first female and the first nurse leader, reflecting the changing and progressive outlook of PCRS.

"My election to the lead role demonstrates what PCRS is all about. It's about us being a multidisciplinary team, non-hierarchical, and all working together. It's also about us not always doing what we've always done and demonstrates the strides forward that PCRS has made in recent years," says Carol.

Carol's passion for respiratory care began when she moved from a job in accident and emergency into general practice 28 years ago. As a practice nurse in Minchinhampton, Gloucestershire, she took on responsibility for asthma and gained considerable expertise working alongside Mike Thomas, Professor of Primary Care Research at the University of Southampton, who was then a GP with an academic interest in asthma.

She completed an asthma diploma, became involved in primary care asthma research projects, went to research meetings, (not at that time usually attended by practice nurses) and published papers jointly with Mike. Mike at that time worked part time as a clinical assistant with a chest consultant at the local hospital and shared the specialist experience he gained with Carol, enabling them to treat respiratory patients at a high level in the practice.

"Mike would teach me as he went along so I learnt a massive amount. It allowed us to do things that just wouldn't happen in other practices. It enabled us to improve the care that was being provided in the practice and improve the lives of our patients. I was fortunate to be given a lot of opportunities that other practice nurses would not normally have had," recalls Carol.

In the meantime as a practice nurse Carol was also managing the other long term conditions in the practice and was eventually appointed lead nurse of the growing practice nurse team.

She qualified as a nurse practitioner, completed the nurse prescribing course and did a masters in respiratory enabling her to practise at an advanced level. Not one to sit still, and, as a Queen's Nurse, she went on to complete a leadership course at the Queen's Nursing Institute, which she describes as "massively enlightening". She also picked up leadership skills from another GP colleague who shared books, tools and tips from leadership courses that he was doing. "We would run through things together so I was doing the courses by proxy," she says.

With increasing experience under her belt it was a natural progression for Carol to take on a leadership role outside the practice. Mike Thomas used to take Carol along to educational and research meetings of the General Practice Airways Group, (the forerunner of PCRS). At that time the organisation did not allow nurses to join as members.

But by 2005 the General Practice Airways Group had begun to recognise the expanding role of practice nurses in respiratory care and Carol was asked to join a small group of respiratory interested nurses in a working party formed to look at how nurses could become more involved in the organisation. This became the Nurse Committee and Carol stepped up as Chair when Steph Wolfe completed her term of office. Carol progressed to Nurse Lead and went on to be elected PCRS Vice Chair three years ago.

With her increasing role in PCRS, Carol's clinical interest in respiratory continued to develop and she began to do small pieces of work for Gloucestershire CCG, which at that time had no practice nurse representation. The CCG then began to ask her to take on more and more projects.

Two years ago Carol decided she needed a change of direction and left her practice to take up a portfolio career. Now she is the primary care

representative on the Gloucestershire CCG's Respiratory Clinical Programme Board, working one day a week as respiratory champion. In this role she teaches both nurses and GPs and motivates, inspires and drives quality improvement in respiratory care across the whole county of Gloucestershire.

She also maintains a part time clinical role running a primary care locality-based specialist asthma clinic based around FeNO. "I really enjoy this work because I love the patient contact and it also keeps me in touch with my clinical skills," she says.

Her achievements have been recognised with an MBE for services to nursing and healthcare in the 2016 Queen's New Year's Honours List, a Queen's Nurse title for high standards of practice and patient centred care and a Long Service Award from the Queen's Nursing Institute.

What will having a female nurse leader for the first time mean for PCRS? "I don't think the professional background of the person in the Chair should make any difference," says Carol. "This is because the Chair represents the whole membership which is increasingly welcoming in all members of the multi- disciplinary team. We are working to ensure that all the different members of the primary care and community team are represented on all the PCRS committees across board. It won't make a drastic change in the direction of the organisation because decisions are never made by one person. Our ethos of working as a team very much reflects how general practice and community care should work."

Carol hopes that as PCRS Executive Chair she will inspire other members to take on leadership roles. For her, the role represents a huge personal and professional opportunity. "In the same way that other people have encouraged and supported me in my development as a clinician and a leader I hope to also inspire and support other people to build confidence to lead and also to nurture members' enthusiasm to provide high quality respiratory care," she says.

Dr Katherine Hickman, GP and Respiratory Lead for Leeds and Bradford CCGs, will become Vice Chair of PCRS in September. This will ensure there is both a nurse and a GP in the top PCRS leadership roles.

Date of Preparation: April 2019 Version 1

PCRS-UK News Round-Up

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AFFILIATED GROUP LEADERS NETWORKING EVENT – 19 SEPTEMBER 2019

Are you interested in setting up a new group or want to get some inspiration for an existing group? Come along to our networking event on 19th September 2019 from 16.45–18.15 hours which takes place immediately prior to the PCRS annual conference. We'll provide refreshments and share some key learning points as well as introducing existing and aspiring group leaders to other affiliated leaders and their deputies. This is an ideal opportunity to quiz other passionate and inspiring group leaders and learn more about how to get the most out of your group and what PCRS can do to support you.

PCRS RESPIRATORY LEADERSHIP PROGRAMME

"The diversity of practitioners who come to the meetings means I always learn something new and feel enriched by spending time with people who are all striving to make steps to progress services for respiratory patients", said Clare Cook of the PCRS Respiratory Clinical Leadership Programme. If you want to make improvements to the quality of care for people with respiratory disease in your area then do consider participating in the respiratory clinical leadership programme where you will be able to develop your skills in a safe and supportive environment. Find out more at https://www.pcrs-uk.org/respiratory-clinical-leadership-programme

NEW COMMITTEE MEMBERS

Earlier this year we recruited a number of members to the PCRS Education and Service Development committees. We are delighted to welcome Val Gerrard, Nurse Practitioner; Siobhan Hollier, Clinical Specialist Respiratory Physiotherapist; Vikki Knowles, Respiratory Nurse Consultant; Emma Lambon, Practice Nurse; Ren Lawlor, Senior Lecturer Adult Nursing; Oonagh Potts, Nurse Practitioner / Nurse Manager; Frances Barrett, Respiratory trainer/ respiratory nurse specialist; Dominika Froehlich-Jeziorek, Pharmacist; Katherine Hickman, GP; Deborah Leese, Clinical practice pharmacist; Victoria McKelvie, Respiratory Nurse Specialist; Stuart Shields, GP/Clinical Commissioner. You can find out more about who is represented on the committees via the PCRS website – see https://www.pcrs-uk.org/education-committee and https://www.pcrs-uk.org/service-development-committee

A logical choice

of maintenance treatment to help prevent exacerbations of COPD

Maintenance treatment in adult patients with moderate to severe chronic obstructive pulmonary disease (COPD) who are not adequately treated by a combination of an inhaled corticosteroid and a long-acting β_2-agonist or a combination of a long-acting β_2-agonist and a long-acting muscarinic antagonist (for effects on symptoms control and prevention of exacerbations see section 5.1 of the SPC).[1]

Trimbow®

beclometasone/formoterol/
glycopyrronium (87/5/9 mcg)
Extrafine formulation

Inspired logic

Chiesi

Prescribing information can be found overleaf

UK-TRI-1900078 Mar 2019

Prescribing Information

Trimbow 87/5/9 Pressurised Metered Dose Inhaler (pMDI) Prescribing Information Please refer to the full Summary of Product Characteristics (SPC) before prescribing. **Presentation:** Each Trimbow 87/5/9 pMDI delivered dose contains 87micrograms (mcg) of beclometasone dipropionate (BDP), 5mcg of formoterol fumarate dihydrate (formoterol) and 9mcg of glycopyrronium. This is equivalent to a metered dose of 100mcg BDP, 6mcg formoterol and 10mcg glycopyrronium. **Indication:** Maintenance treatment in adult patients with moderate to severe chronic obstructive pulmonary disease (COPD) who are not adequately treated by a combination of an inhaled corticosteroid and a long-acting beta$_2$-agonist or a combination of a long-acting beta$_2$-agonist and a long-acting muscarinic antagonist (for effects on symptoms control and prevention of exacerbations see section 5.1 of the SPC). **Dosage and administration:** For inhalation in adult patients (≥18 years). 2 inhalations twice daily. Can be used with the AeroChamber Plus® spacer device. BDP in Trimbow is characterised by an extrafine particle size distribution which results in a more potent effect than formulations of BDP with a non-extrafine particle size distribution (100mcg of BDP extrafine in Trimbow are equivalent to 250mcg of BDP in a non-extrafine formulation). **Contraindications:** Hypersensitivity to the active substances or to any of the excipients. **Warnings and precautions:** Not for acute use in treatment of acute episodes of bronchospasm or to treat COPD exacerbation. Discontinue immediately if hypersensitivity or paradoxical bronchospasm. *Deterioration of disease:* Trimbow should not be stopped abruptly. *Cardiovascular effects:* Use with caution in patients with cardiac arrhythmias, aortic stenosis, hypertrophic obstructive cardiomyopathy, severe heart disease, occlusive vascular diseases, arterial hypertension and aneurysm. Caution should also be used when treating patients with known or suspected prolongation of the QTc interval (QTc > 450 milliseconds for males, or > 470 milliseconds for females) either congenital or induced by medicinal products. Trimbow should not be administered for at least 12 hours before the start of anaesthesia as there is a risk of cardiac arrhythmias. Caution in patients with thyrotoxicosis, diabetes mellitus, phaeochromocytoma and untreated hypokalaemia. Increase in pneumonia and pneumonia hospitalisation in COPD patients receiving ICS observed. Clinical features of pneumonia may overlap with symptoms of COPD exacerbations. Systemic effects of ICS may occur, particularly at high doses for long periods, but are less likely than with oral steroids. These include Cushing s syndrome, Cushingoid features, adrenal suppression, growth retardation, decrease in bone mineral density, cataract, glaucoma and more rarely, a range of psychological or behavioural effects including psychomotor hyperactivity, sleep disorders, anxiety, depression and aggression. Use with caution in patients with pulmonary tuberculosis or fungal/viral airway infections. Potentially serious hypokalaemia may result from beta$_2$-agonist therapy. Formoterol may cause a rise in blood glucose levels. Glycopyrronium should be used with caution in patients with narrow-angle glaucoma, prostatic hyperplasia or urinary retention. Use in patients with severe hepatic or renal impairment should only be considered if benefit outweighs the risk. Consider referral of patients reporting blurred vision or visual disturbances to an ophthalmologist as causes may include cataract, glaucoma or rare diseases such as central serous chorioretinopathy. **Interactions:** Since glycopyrronium is eliminated via renal route, potential drug interactions could occur with medicinal products affecting renal excretion mechanisms e.g. with cimetidine (an inhibitor of OCT2 and MATE1 transporters in the kidney) co-administration, glycopyrronium showed a slight decrease in renal excretion (20%) and a limited increase in total systemic exposure (16%). Possibility of systemic effects with concomitant use of strong CYP3A inhibitors (e.g. ritonavir, cobicistat) cannot be excluded and therefore caution and appropriate monitoring is advised. *Related to formoterol:* Non-cardioselective beta-blockers (including eye drops) should be avoided. Concomitant administration of other beta-adrenergic drugs may have potentially additive effects. Concomitant treatment with quinidine, disopyramide, procainamide, antihistamines, monoamine oxidase inhibitors (MAOIs), tricyclic antidepressants and phenothiazines can prolong the QTc interval and increase the risk of ventricular arrhythmias. L-dopa, L-thyroxine, oxytocin and alcohol can impair cardiac tolerance towards beta$_2$-sympathomimetics. Hypertensive reactions may occur following co-administration with MAOIs including drugs with similar properties (e.g. furazolidone, procarbazine). Risk of arrhythmias in patients receiving concomitant anaesthesia with halogenated hydrocarbons. Concomitant treatment with xanthine derivatives, steroids or diuretics may potentiate a possible hypokalaemic effect of beta$_2$-agonists. Hypokalaemia may increase the likelihood of arrhythmias in patients receiving digitalis glycosides. *Related to glycopyrronium:* Co-administration with other anticholinergic-containing medicinal products is not recommended. *Excipients:* Presence of ethanol may cause potential interaction in sensitive patients taking metronidazole or disulfram. **Fertility, pregnancy and lactation:** Should only be used during pregnancy if the expected benefits outweigh the potential risks. Children born to mothers receiving substantial doses should be observed for adrenal suppression. Glucocorticoids and metabolites are excreted in human milk. It is unknown whether formoterol or glycopyrronium (including their metabolites) pass into human breast-milk but they have been detected in the milk of lactating animals. Anticholinergic agents like glycopyrronium could suppress lactation. A risk/benefit decision should be taken to discontinue therapy in the mother or discontinue breastfeeding. A decision must be made whether to discontinue breastfeeding or to discontinue/abstain from therapy. **Effects on driving and operating machinery:** None or negligible. **Side effects:** *Common:* pneumonia (in COPD patients), pharyngitis, oral candidiasis, urinary tract infection, nasopharyngitis, headache, dysphonia. *Uncommon:* influenza, oral fungal infection, oropharyngeal candidiasis, oesophageal candidiasis, sinusitis, rhinitis, gastroenteritis, vulvovaginal candidiasis, granulocytopenia, dermatitis allergic, hypokalaemia, hyperglycaemia, restlessness, tremor, dizziness, dysgeusia, hypoaesthesia, otosalpingitis, atrial fibrillation, electrocardiogram QT prolonged, tachycardia, tachyarrhythmia, palpitations, hyperaemia, flushing, hypertension, cough, productive cough, throat irritation, epistaxis, diarrhoea, dry mouth, dysphagia, nausea, dyspepsia, burning sensation of the lips, dental caries, aphthous stomatitis, rash, urticaria, pruritus, hyperhidrosis, muscle spasms, myalgia, pain in extremity, musculoskeletal chest pain, fatigue, C-reactive protein increased, platelet count increased, free fatty acids increased, blood insulin increased, blood ketone body increased, cortisol decreased. *Rare:* Lower respiratory tract infection (fungal), hypersensitivity reactions, including erythema, lips, face, eye and pharyngeal oedema, decreased appetite, insomnia, hypersomnia, angina pectoris (stable and unstable), ventricular extrasystoles, nodal rhythm, sinus bradycardia, blood extravasation, paradoxical bronchospasm, oropharyngeal pain, pharyngeal erythema, pharyngeal inflammation, dry throat, angioedema, dysuria, urinary retention, nephritis, asthenia, blood pressure increased, blood pressure decreased. *Very rare:* thrombocytopenia, adrenal suppression, glaucoma, cataract, dyspnoea, growth retardation, peripheral oedema, bone density decreased. *Frequency not known:* psychomotor hyperactivity, sleep disorders, anxiety, depression, aggression, behavioural changes, blurred vision. (Refer to SPC for full list of side effects). **Legal category:** POM **Price and Pack:** £44.50 1x120 actuations. **Marketing authorisation (MA) no:** EU/1/17/1208/002 **UK Distributor:** Chiesi Limited, 333 Styal Road, Manchester, M22 5LG. **Date of Preparation:** Jan 2019. AeroChamber Plus® is a registered trademark of Trudell Medical International.

Adverse events should be reported. Reporting forms and information can be found at www.mhra.gov.uk/yellowcard or search for MHRA Yellow Card in the Google Play or Apple App Store. Adverse events should also be reported to Chiesi Limited on 0800 0092329 (UK) or PV.UK@Chiesi.com.

Reference: 1. Trimbow Summary of Product Characteristics, Chiesi Limited. Available at: www.medicines.org.uk/emc/product/761.

Trimbow®

beclometasone/formoterol/
glycopyrronium (87/5/9 mcg)

Second Opinion

Your respiratory questions answered...

Question

Can you direct me to finding information regarding FEV1 QOF? Our practice is trying to pass this to the healthcare assistant (HCA) to perform FEV1 testing through a handheld COPD-6 and she is not trained to undertake spirometry. Is there any evidence to stop this as I think this is unsafe?

A concerned nurse

Answer

The good news is FEV1 is being removed from QOF so there will be no requirement to record annual FEV1 on people with an established diagnosis of COPD that has been confirmed with quality assured post-bronchodilator spirometry. As the correlation between symptoms in COPD and lung function is poor QOF have retired this indicator. We are treating the symptoms not the lung function results. That said there may be times when spirometry is indicated after diagnosis – accelerated symptoms, non-response to treatment, or if the diagnosis is in doubt for example.

It does bring into question the roles of the various team members in respiratory care. The ARTP spirometry certification process only applies to diagnostic spirometry so was never intended to cover the annual FEV1 when it was a necessity. However, anyone involved in the care of respiratory patients should have received training appropriate to their involvement in care. There is also something here regarding delegation of tasks.

Fit to Care is a document produced by PCRS to allow healthcare professionals to assess their level of involvement with respiratory patients, the knowledge and skills recommended for the differing levels of involvement and the training required to underpin this. All HCPs should be appropriately trained, competent and confident in their role. It is really useful to demonstrate training needs and negotiate funding and time for training.
You can find it at https://www.pcrs-uk.org/resource/fit-care

The Nursing & Midwifery Council (NMC) have regulations around delegation and accountability so if you are responsible for the HCA within the nursing team that might also be worth considering.
https://www.nmc.org.uk/globalassets/sitedocuments/nmc-publications/delegation-and-accountability-supplementary-information-to-the-nmc-code.pdf

Dr Duncan Keeley describes the role of microspirometry in his article on the role of peak flow and microspirometry and there is a supporting wall chart in the same issue of PCRU to describe microspirometry.
https://www.pcrs-uk.org/sites/pcrs-uk.org/files/pcru/2017-Spring-Issue-11.pdf

Carol Stonham
Vice Chair and Nurse Lead, PCRS

Delivering Excellence Locally

Featuring initiatives led by PCRS members around the UK, supported by PCRS programmes and tools

Primary care teams benefit from innovative multidisciplinary respiratory education


Francesca Robinson PCRS Communications Consultant, talks to **Dr Emily Heiden**, Respiratory Registrar and Clinical Fellow in the Research and Innovation Department in Portsmouth

A new approach to respiratory education has shown that primary healthcare professionals benefit significantly from inter-professional education delivered by a multidisciplinary team.

This was the finding of a review of delivering education to healthcare professionals during an integrated care project called Mission ABC (Modern Innovative Solutions Improving Outcomes In Asthma, Breathlessness and COPD).

Run by Professor Anoop Chauhan and the Research and Innovation Department at Queen Alexandra Hospital, Portsmouth, this initiative brought specialist multidisciplinary clinicians into primary care to identify patients with asthma, COPD and breathlessness symptoms and give them a holistic assessment. It significantly improved the outcomes of over 400 patients.

It was a priority that secondary care respiratory expertise remained in GP surgeries following completion of the project and that educational activities were accessible and relevant for all healthcare professionals in primary care.

All the primary healthcare professionals attending Mission ABC clinics were offered mentorship clinics, where they followed patients on their journey as they were reviewed by the multidisciplinary specialist team. They also attended education events which reflected the structure of the clinics and provided multidisciplinary respiratory teaching. Common themes identified by training needs analyses of the primary care team and feedback from the mentorship clinics, influenced the content of the educational events.

All the educational activities were well attended by a wide variety of healthcare professionals and self-reported understanding and confidence to manage respiratory conditions subsequently improved.

Dr Emily Heiden, Respiratory Registrar and Clinical Fellow in the Research and Innovation Department in Portsmouth, said the mentorship clinics gave GPs and practice nursing staff opportunities to discuss issues identified with each patient. This stimulated professional interaction.

"The meetings were more educational than we first envisaged and the practice staff were always engaged in the discussions regarding patient management. We hadn't expected them to be quite as successful and interactive as they were," she said.

Education events held in the form of carousel clinics, which reflected the Mission ABC clinics, enabled the primary healthcare professionals to receive education in sessions, moving around in small groups (up to a maximum of eight), discussing topics from the perspective of different members of the multidisciplinary team. The format of the small groups enabled the different healthcare professionals to integrate and relax together. This stimulated professional discussions and was particularly helpful for those who might have otherwise felt less confident about asking questions.

Dr Heiden describes the feedback from the educational events as amazing. "People made comments such as 'I have learned more from this morning than from all the other respiratory updates I've attended in recent years put together'. Most people said they felt they benefited because the learning was based around their needs rather than a pre-determined agenda. They enjoyed learning in small groups where they could ask questions and also said they benefited from attending the mentorship clinics because they could ask questions both of the patient and the multidisciplinary specialists."

The potential financial challenge of delivering the model of education was overcome with the use of pharma sponsorship,

thereby the events could be easily replicated in the future to provide ongoing education for healthcare professionals.

The team has also developed an educational toolkit for other surgeries to benefit from the learning. In addition they have developed a Mission ABC website, which is currently being updated to include resources for both patients and healthcare professionals. It will include videos explaining how to perform a respiratory examination and consultation, how to perform and interpret spirometry and FeNO testing and different aspects of respiratory physiotherapy.

In addition a senior research nurse has developed a physical Asthma toolbox for primary care which contains all the essential educational tools to run an asthma review such as airway models, placebos and In-check devices.

"This project was also really eye opening and educational for me as a hospital trainee with a predominantly hospital-centric view of the world," says Dr Heiden. She explains: "I had never previously undergone any GP training and it was really interesting to work in primary care to see their approach to problem solving; it made me realise how privileged we are in hospital when we are able to diagnose and treat patients with all the resources available to us.

"It also made me understand just how important high quality healthcare professional education and training is with the ever increasing demands to see more patients with complex medical conditions. This creates an even greater need for busy healthcare staff working in a highly time pressurised environment to undertake continued professional development."

Date of Preparation: April 2019 Version 1

Community pharmacy training programme set to improve asthma care

Fran Robinson PCRS Communications Consultant talks to **Darush Attar-Zadeh** PCRS member and Respiratory Lead Pharmacist at Barnet CCG

A structured clinical session which enables community pharmacists to support patients with asthma to change their behaviour and improve control of their condition is being tested in North West London.

The initiative, by the North West Local Practice Forum of the Royal Pharmaceutical Society, follows a similar project in which pharmacists reported improvements in their understanding of key indicators of medication-related respiratory management after they were given training in COPD.

Community pharmacy teams see asthma patients frequently in a context of medication discussions. This makes them ideally placed to help improve these patients' understanding of the role of different inhalers for managing their condition optimally and reduce their over-reliance on short-acting beta agonists (SABAs).

In order to upskill their knowledge, the pharmacy teams will undergo three training sessions covering clinical aspects of asthma, issues around unwarranted variation and the Asthma Right Care social movement. In addition they will be given a pack signposting them to PCRS, the Primary Care Respiratory Academy and other educational resources to study in their own time.

The effectiveness of the training and the impact on patients will be assessed with pre- and post-training questionnaires. A key measure will be the change in awareness of the relationship between the number of SABA inhalers prescribed per year and the number of breathless episodes experienced by a patient each week.

A total of 25 community pharmacies have signed up for the project which will run between May and October. They will complete questionnaires on around 250 customers identified as having asthma.

During the structured sessions pharmacists will have conversations with patients on issues such as whether they are a smoker, or live with a smoker, what medication they are on, including the brand and dose, and whether they have a personal asthma action plan (PAAP).

During discussions about the PAAP the pharmacist will check whether the patient understands the medication they are taking, that they know to take their inhaled steroids regularly and

to only use SABA for occasional symptom relief. They will use the Asthma Right Care slide rule to help the patient understand what over-reliance on SABA means.

Pharmacists will also be expected to give patients inhaler technique coaching and to signpost patients to the Right Breathe website to watch videos about their inhaler devices to enable them to practise at home.

The sessions will also give patients the opportunity to ask questions outside of primary care practice. Some patients may prefer to open up to the community pharmacist and raise issues or concerns they may not have thought about when seeing the asthma nurse, GP or practice based pharmacist.

Darush Attar-Zadeh, PCRS member and Respiratory Lead Pharmacist at Barnet CCG, says: "In North West London we have a very good network of community pharmacists who have been keen to be involved in previous years in various educational projects whether glaucoma, Parkinson's, lung cancer or COPD. These have all been very successful.

"Pharmacists are already offering patients an inhaler technique service but we are hoping to show with this audit that with the right training, they can do a lot more to empower patients to understand their medicines and improve their self-management."

One of the challenges of implementing this project is that busy pharmacists may find it difficult to find the time to release support staff to do the audit. They are hoping that targeted Medicines Use Reviews and New Medicine Service payments will make it worth their while. Many will be able to hand over the task of completing the questionnaire to their pre-registration pharmacist as part of their requirement to conduct an audit.

"We have allocated the pharmacies 15 minutes to cover all aspects of the questionnaire. If they have more time we have given them some other things to do such as to ask whether patients have had their inhaler technique checked, whether they have had a flu vaccination, how many courses of oral steroids they have been prescribed and how many A&E visits they have had in the last 12 months.

"It is an ambitious project because there is so much information that we are hoping to gather from the audit. But based on past educational initiatives with our pharmacists we are expecting it to be very successful. The idea is to highlight that community pharmacy can do a lot more to help patients manage their asthma and that we can utilise all the skills of the multidisciplinary team," says Darush.

Other members of the team who have been involved in developing the project are Stephanie Bancroft, Usha Shah, Amira Giurguis, Christine Heading, Natalia Nisiobedzka, Suhrab Sayfi, Afifa Rasoli, and Fatema Mamdani.

Date of Preparation: April 2019 Version 1

SUMMER MEETING 2019

FIRST ANNOUNCEMENT

Thursday 13th and Friday 14th June • The Renold Building, University of Manchester

The programme for the annual BTS Summer Meeting will offer a wide range of topics to interest and stimulate all members of the respiratory health care team, providing excellent opportunities to learn, discuss and network.

Main symposia

- Year in Review (Cough, pneumonia and cystic fibrosis)
- Joint BTS/ARTP symposium: MDT case presentations
- Joint BTS/BSTI symposium: rare lung disease
- COPD: find them, treat them, do it better
- The MDT management of malignant airway obstruction
- The good, the bad and the ugly - improving outcomes in occupational lung disease
- Self-management and pulmonary rehabilitation in COPD: are we blurring the boundaries?
- How to manage acute pulmonary embolism: a practical approach
- TB or not TB, that is the question
- Politics and persuasion: developing a service in the NHS
- Difficult asthma: perspectives of clinicians and patients
- Oxygen - supply and demand
- Respiratory research - the how, why and when
- It is critical to care?
- Pleural disease - putting the research into practice
- Clinical Grand Round

The progamme will also include:

- Two half-day Mini Short Courses on "Interstitial lung disease and sarcoidosis: and "An update on sleep in 2019"
- The 2019 Summer Meeting Guest Lecture
- BTS Abstract Prizes in two catergories: "Improving quality and exellence in patient care" and "Innovation in service delivery and/or education and training in respiratory".

Full programme and conference registration available now on the BTS website.

Great savings with early bid rates available for bookings received before 23:59 on Monday 6th May 2019

Affiliated Groups

Working together to make a real difference in respiratory care

PCRS Affiliated Groups connect colleagues who are passionate about developing respiratory care together in your local area.
If there isn't a group near you, why not create your own?

PCRS is here to help you with

- **Support and resources** to help you get started and develop a new group.
- **An affiliation scheme** offering enhanced credibility and support for your group from a national network.
- **A regular newletter,** packed with ideas to help support your group.
- **An annual meeting** for Group Leaders to support personal and collective respiratory development in your area.
- **Free PCRS membership** for leaders of an affiliated local group.

Be part of a thriving respiratory care network

We're here to help you with improving respiratory care for patients We know it can be daunting and frustrating – especially when facing budget cuts, juggling workloads and trying to keep up with the latest developments.

PCRS has around 50 affiliated local groups in the UK, including nursing groups, primary care groups sharing knowledge about clinical developments and multi-disciplinary communities of practice driving service improvement in a local area.

Affiliated Group Leaders Networking Event

19th September 2019, The International Centre, Telford

Find out about our affiliated groups by visiting
https://pcrs-uk.org/affiliated-groups

PCRS is grateful to Atlantic Pharma and Circassia Pharmaceuticals plc for the provision of sponsorship through funding to support the activities of the Affiliated Group Leaders programme. The programme has been solely organised by PCRS

Affiliated Groups

Are you ready for the digital era?


Carol Stonham Vice Chair and Affiliated Groups and **Tricia Bryant**, PCRS Operations Director discuss how digital technology can support affiliated groups

A growing number of organisations and companies are embracing modern technology to communicate and streamline their operations. Video-meetings, teleconferences, mobile phone apps such as WhatsApp, online message groups, social media and other types of virtual communication are growing in popularity to help facilitate communication, engagement and reduce costs.

Innovative apps and video chat services can help teams to share files, hold online meetings, engage in projects and collaborate on-the-go with geography no longer a barrier to participation and engagement.

Of course, there is still nothing like the personal touch of a face-to-face meeting where colleagues and peers can get together in a friendly environment which has dedicated time allocated; but there are occasions where it is not possible – for example, due to lack of funding, geography, time restrictions – to be able to meet in person. This is where technology can really help. Setting up a virtual meeting is much easier, less time-consuming and could be an opportunity for your members to receive updates on important topics in between face-to-face meetings and to support local learning.

Online collaboration platforms, for example Slack.com also help users to share information without additional email burden and collaborate on projects. Many of these platforms offer a free version that would be more than suitable for affiliated groups and some also offer free calls using VOIP technology. All that users require to participate is an internet connection and access to the app being used.

For videoconferencing, all participants require to be able to join in with video conferences is a computer connected to the internet along with webcam and speakers. Additionally it may be necessary to register on the video conference software (e.g. Skype, Zoom, eVoice etc).

PCRS is embracing the digital path and has already invested in new technology to support the PCRS website, online collaboration platforms and video-conferencing and as members you will have the opportunity to share these experiences and new services.

Using this technology may help existing affiliated groups to increase their activity and member engagement without increasing substantially the costs of the group. Anyone wanting to discuss how to go about using the technology please give us a call and we can share our experiences.

It's important with any new technology to practise before you 'go live'. Make sure you get used to the systems and their functionality before you share more widely with your group and provide simple instructions to the group when sharing the technology. You may experience some teething problems at the beginning but if you persevere you will find that the technology can really help you to sustain your groups and keep them engaged.

For those PCRS members who do not have a local PCRS affiliated group (check if you have a group near you at https://www.pcrs-uk.org/affiliated-groups-map) we are planning to establish the first PCRS virtual affiliated group with our first videoconference later in the Summer when we plan to invite an expert to discuss a topical clinical issue (for example, 'Managing conflicting COPD guidance – the PCRS approach' or 'Managing tobacco dependency in primary care'). Each virtual meeting will last one hour and participants will receive a copy of the slides to share locally as well as hearing from the expert.

If you'd like to sign up to a videoconference please email us at info@pcrs-uk.org providing your email address and any suggestions for clinical topics you would like covered at the virtual meeting.

Date of Preparation: April 2019 Version 1

3 minutes to better inhaler technique!

A new, definitive series of short videos from Asthma UK in collaboration with the UK Inhaler Group.

Created for patients with conditions including asthma, COPD and cystic fibrosis.

Help your patients:

- Get their inhaler technique right between appointments
- Manage their symptoms better
- Need fewer emergency appointments

Show them to your patients

www.asthma.org/inhalervideos

Created by Asthma UK in collaboration with the UK Inhaler Group and respiratory patients.

Your essential guide to spirometry

What is spirometry?

Spirometry is used to measure lung volumes and air flow. Alongside clinical assessment, it is an essential tool used in the diagnosis, assessment and monitoring of Chronic Obstructive Pulmonary Disease (COPD)[1], may contribute to the diagnosis of asthma and detect restrictive respiratory conditions.[2]

Who should undertake spirometry?

Poorly performed spirometry is misleading and potentially harmful. Spirometry should only be undertaken by healthcare professionals who are trained and certified as competent (certificated) in performing and/or interpreting the tests.[3,4,5] Regular updates and quality audits are fundamental to ensuring the quality of spirometry testing.

Association for Respiratory Technology & Physiology
http://www.artp.org.uk/

Association for Respiratory Technology & Physiology

The ARTP spirometry certification is now the recognised competency assessment qualifications for all practitioners performing spirometry. The courses are based on the competency assessment framework, "Quality Assured Spirometry" which sets out the minimum competency standards for healthcare professionals performing spirometry

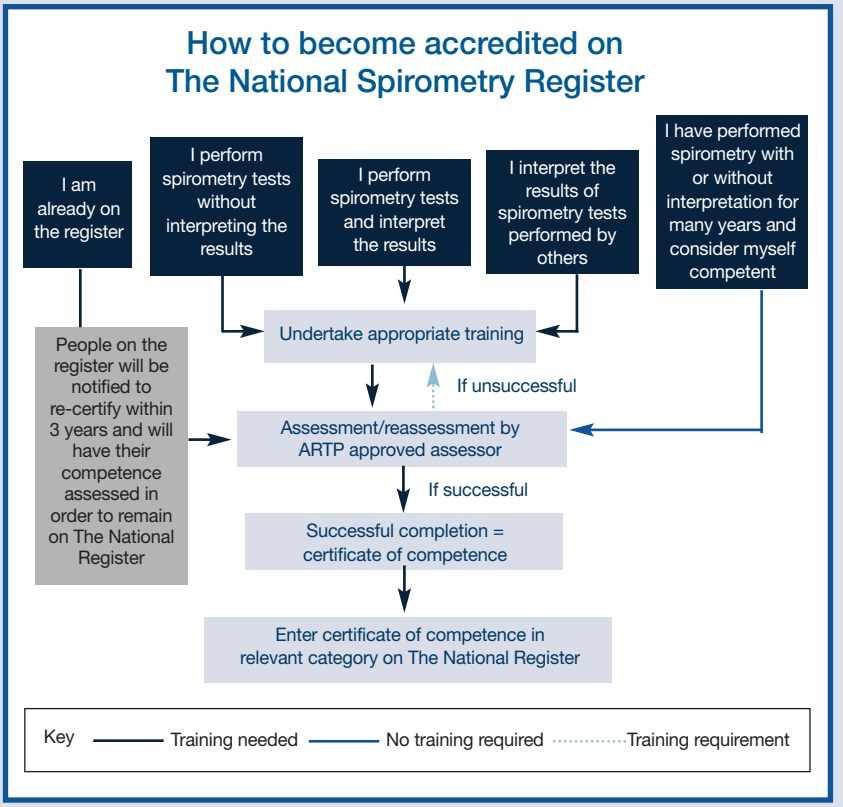
Institute for Clinical Science and Technology
https://www.clinicalscience.org.uk/5-steps-to-the-artp-register/

The Institute of Clinical Science & Technology

A primarily online course, endorsed by PCRS, as appropriate and relevant to primary care healthcare professionals. The course is administered by the Institute of Clinical Science and Technology (ICST), the ARTP's training partner. ICST also host the certification process and the National Spirometry Register. The online course is supported by a half day practical skills workshop for the Full and Foundation levels run by ARTP accredited trainer/assessors.

Diagnostic Spirometry: National Register of certified professionals and operators

1. The National Register (https://artp-register.org.uk/) is the list of practitioners and operators who have demonstrated their competence in spirometry. A National Register will enable transparency within the NHS and to the public about the competence of healthcare professionals to perform and/or interpret spirometry. This list already exists and many healthcare professionals are already on it after undertaking training in recent years.
2. The National Register is not mandatory. However PCRS believes having a national certification programme and register represents the best way to ensure quality and consistency. We expect that introducing the scheme will raise the quality of diagnosis of respiratory disease because it will ensure that all practitioners involved in spirometry have their skills assessed and are certified as competent.
3. The Care Quality Commission (CQC) has indicated that they will check on the quality of spirometry by looking at whether practices are delivering spirometry in line with the standards document. They will take into account whether they are on the National Register in assessing their competence.



CQC expects practices to be able to demonstrate

- How they ensure spirometry equipment is cleaned and maintained according to the manufacturer's guidance (KLOE S3 – reliable systems, processes and practices).
- That all staff who perform spirometry tests or interpret results are competent (KLOE E3 - staff skills, knowledge and experience). They can demonstrate this if the staff are on the National Register.

How to join the register

There are several different routes you can take in order to join the National Register. The most suitable route for you depends on whether you need training or consider yourself competent at performing and/or interpreting spirometry, or whether you are already on the register and are applying for re-certification.

For more information visit
https://www.clinicalscience.org.uk/5-steps-to-the-artp-register/

PCRS has produced a series of Frequently Asked Questions about the register – see https://www.pcrs-uk.org/spirometry-assessment-certification-and-national-register-faqs

What are the training options?

1. The Association of Respiratory Technology and Physiology (ARTP) spirometry course (http://www.clinicalscience.org.uk/5-steps-to-the-artp-register/step-two-the-course/), developed in conjunction with PCRS, is a blended learning programme which comprises online training, and a half day practical skills workshop. PCRS has endorsed this course and recommends it as appropriate and relevant to primary care practice. The course is administered by the Institute of Clinical Science and Technology (ICST), the ARTP's training partner.

2. The training can be undertaken at 3 levels
    1. **Full** – both performing and interpretation
    2. **Foundation** – performing only
    3. **Interpretation** – interpreting only

3. There is an online element for all three levels, and a half day practical skills workshop for Full and Foundation, but not for Interpretation only. The workshops will be run by individuals who are ARTP accredited trainer/assessors. These may be respiratory physiologists, specialist respiratory nurses, primary care nurses/nurse practitioners, physiotherapists, or GPs.

4. The costs of the ARTP training are:
    1. **Full certificate** (blended/online) – £500
    2. **Foundation certificate** (blended/online) – £500
    3. **Interpretation certificate** (online only) – £450

    This cost includes assessment and entry onto the register.
    You can see a full table of costs at https://www.clinicalscience.org.uk/artp-spirometry-programme-purchasing/.

5. There are still other training options in spirometry from other individuals and organisations which provide training. All of them should be aiming to prepare healthcare professionals to deliver spirometry to the standard set out in the NHSE document 'A guide to performing quality assured diagnostic spirometry', and to be successful when they undergo assessment to join the National register. PCRS supports the availability of a range of training routes. If you choose an independent training provider, you will still need to sign up to be assessed for certification by ARTP, in order to join the National register.

    If you choose to receive training from independent training providers, you will need to find out the cost from them.

6. If CCGs or other groups are planning to train groups of healthcare professionals, there may be special arrangements for group training from training providers. Consult with individual training providers.

7. If your practice is providing spirometry in-house, it will probably be the practice that funds your training. If you are involved in a spirometry service that your CCG or other organisation is running, it is likely that they will fund you. In some instances, quality improvement money has been used – either from local budgets or Sustainability Transformation Partnerships (STPs) or national funds.

Recertification

1. If you are already on the National register, you will be called to undergo reassessment and recertification every three years.
2. You may choose to have some refresher training at this point, or you may wish simply to register for recertification without training.
3. The costs of recertification are:
    1. Re-certification (Full) – £150
    2. Re-certification (Foundation) – £150
    3. Re-certification (Interpretation) – £150
4. For more details, see https://www.clinicalscience.org.uk/spirometry-re-certification/

Types of spirometry testing[4]

- **Baseline testing** Used to investigate lung function where diagnosis has not been established.
- **Post-bronchodilator testing**
  - **Investigative**: To diagnose obstructive conditions where baseline spirometry shows an obstructive pattern
  - **Monitoring**: To monitor clinical progress in diagnosed asthma and COPD
- **Reversibility testing** May help to differentiate asthma from COPD.

What equipment is required to conduct spirometry?[4,6]

- Spirometer (must meet ISO standard 26783).
  - Small hand-held meters which provide digital readings (but no visual display) are a cheap option which may be useful as a screening tool to identify people with abnormal readings who should be assessed by full diagnostic spirometry[5]
- One-way disposable mouthpieces and nose clips
- Bacterial and viral filters (selected patients with any risk of infection)
- Accurate height measures – calibrated according to manufacturer's instructions
- Short-acting bronchodilators for reversibility testing and suitable means for delivery (volumatic/nebuliser)

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Calibration, verification and maintenance of spirometry equipment[3-6]

Verification of spirometry test equipment should be performed using a certificated 3 litre syringe and following the manufacturer's recommended procedures. For a device to be within calibration limits it must read +/- 3% of true.[4]

Verification should be verified prior to each clinic/session or after every 10th patient (whichever comes first).

A calibration log should be maintained.

Spirometers should be cleaned and service/maintenance processes carried out regularly according to the manufacturer's instructions and in line with local and national guidance for infection control and equipment maintenance.

Calibration should be carried out as per manufacturer's instructions or if there is a discrepancy of more than 3% during verification

What measurements are undertaken using spirometry?[3]

- **Relaxed or slow vital capacity (VC)**
  The volume of air that can be slowly expelled from the lung from maximal inspiration to maximum expiration
- **Forced vital capacity (FVC)**
  The volume of air that can be forcibly expelled from the lung from maximal inspiration to maximum expiration
- **Forced Expiratory Volume in 1 second (FEV_1)**
  The volume of air that can be forcibly expelled from maximum inspiration in the first second
- **FEV_1/FVC ratio**
  The FEV_1/FVC ratio is the FEV_1 expressed as a percentage of the FVC (or VC if that is greater). i.e. the proportion of the vital capacity exhaled in the first second. It distinguishes between a reduced FEV_1 due to restrictive lung volume and that due to obstruction. Obstruction is defined as an FEV_1/FVC ratio less than 70%
- **Forced Expiratory Volume in 6 seconds (FEV_6)**
  The volume of air that can be forcibly expelled from maximum inspiration in six seconds. This measurement is sometimes used as an alternative for FVC. Similarly FEV_1/FEV_6 is sometimes used instead of FEV_1/FVC.

Abnormal spirometry is divided into restrictive and obstructive ventilatory patterns.

- Restrictive patterns appear in conditions where the lung volume is reduced e.g. interstitial lung diseases, scoliosis. The FVC and FEV_1 are reduced proportionately
- Obstructive patterns appear when the airways are obstructed e.g. due to asthma or COPD. The FEV_1 is reduced more than the FVC

Predicted normal values can be calculated and depend on age, sex, height, mass and ethnicity. FEV_1 is often expressed as a percentage of the predicted value for any person of similar age sex, and height with adjustments for ethnic origin. FEV_1 %predicted is used to classify the severity of COPD. National and international guidelines use the levels of FEV_1 <80%, <50% or <30% predicted to define moderate, severe or very severe disease.

Common errors in spirometry testing[4]

- **Poor seal around mouthpiece**
- **Hesitation or false start**
- **Early termination of exhalation: a 'short blow' which has not achieved the full FVC**
- **Poor intake of breath**
- **Poor forced expiratory effort**
- **Cough during procedure**
- **Incorrect data entered into the spirometer prior to testing**
- **Spirometer not calibrated and verified**

Contraindications to spirometry testing[3-6]

Absolute

- Active infection e.g. AFB positive TB until treated for 2 weeks
- Conditions that may cause serious consequences to health if aggravated by forced expiration e.g. dissecting/unstable aortic aneurysm, pneumothorax, recent surgery (abdominal, thoracic, neurosurgery, eye surgery)

Relative

- Suspected respiratory infection in the last 4-6 weeks requiring antibiotics or steroids
- Undiagnosed chest symptoms e.g. haemoptysis
- Any condition which may be aggravated by forced expiration e.g. prior pneumothorax, history of myocardial infarction, stroke or embolism in the last 3 months, previous thoracic, abdominal or eye surgery
- Perforated ear drum
- Acute disorders such as nausea and vomiting
- Confusion, communication problems

Adjusting Caucasian reference values to other ethnic groups

The BTS/ARTP guidelines suggest that for Japanese, Polynesian, Indian, Pakistani and African patients, and those of African descent, reference values multiplied by a factor of 0.90 should be used[6]

The guidance provided here has been adapted from the following resources and publications:-

1. National Institute for Health and Care Excellence. Management of chronic obstructive pulmonary disease (COPD) in adults in primary and secondary care (partial update) 2010 http://www.nice.org.uk/CG101
2. BTS/SIGN British guideline on the management of asthma - https://www.brit-thoracic.org.uk/standards-of-care/guidelines/btssign-british-guideline-on-the-management-of-asthma/ Last accessed 25/03/2019
3. Spirometry PCRS-UK opinion Sheet Number 1, version 5. 2012. Available at https://www.pcrs-uk.org/resource/Opinion-sheets/spirometry-opinion-sheet
4. A guide to performing quality assured diagnostic spirometry. 2013 Primary Care Commissioning. Available at http://www.pcc-cic.org.uk/article/guide-quality-assured-diagnostic-spirometry
5. Mark L Levy, Philip H Quanjer, Booker Rachel, Brendan G Cooper, Stephen Holmes & Iain R Small. Diagnostic Spirometry in Primary Care: Proposed standards for general practice compliant with American Thoracic Society and European Respiratory Society recommendations. A Primary Care Respiratory Society UK (PCRS-UK) document, in association with the Association for Respiratory Technology & Physiology (ARTP) and Education for Health. *Prim Care Respir J.*2009;18:130–147. http://dx.doi.org/10.4104/pcrj.2009.00054
6. Guidelines for the measurement of respiratory function. Recommendations of the British Thoracic Society and the Association of Respiratory Technicians and Physiologists. Respir Med 1994; 88: 165–194

Further Information for Patients
http://patient.info/health/spirometry-leaflet
http://www.artp.org.uk/en/patient/lung-function-tests/pretest-info.cfm

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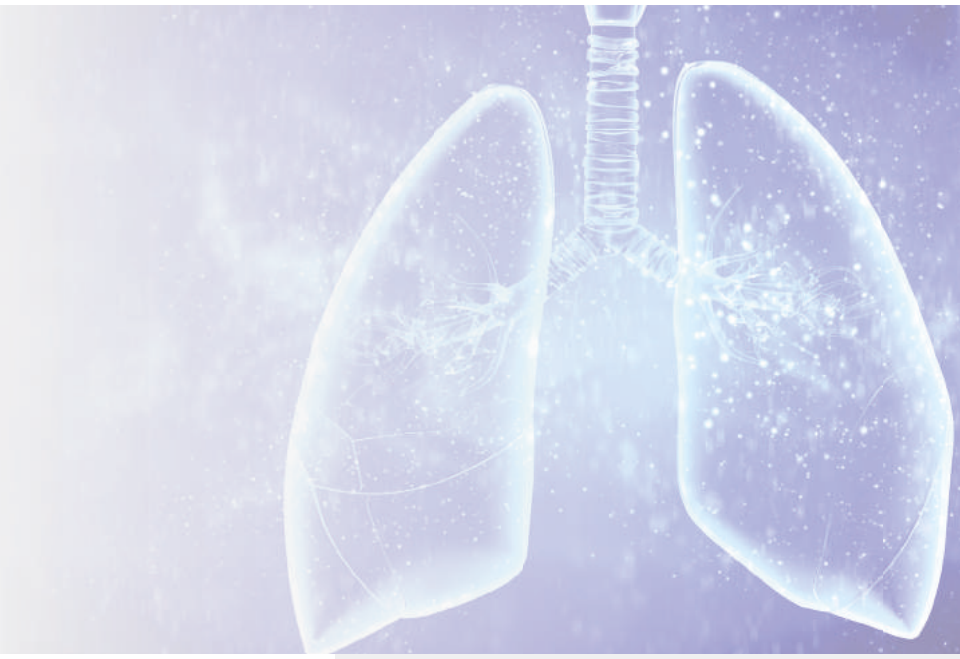

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