Primary Care Respiratory Update

Autumn/Winter 2025 Issue 31

Your members' magazine packed with useful features, clinical updates, educational updates, respiratory news and opinion.

Primary Care Respiratory Society

Greener Respiratory Healthcare

The PCRS Greener Healthcare Initiative sets out to promote practical action that can help to reduce the environmental impact of respiratory healthcare.

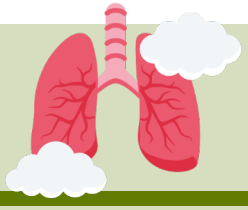
We are pleased to share a suite of new resources that aim to support you to play your part in reducing carbon emissions.

These resources will give you the inspiration, information and practical guidance you need to deliver greener, kinder and more sustainable respiratory care.

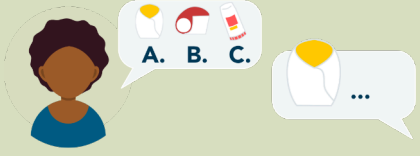
New resources available

Lobbying your local MP on environmental issues

10 ways to implement sustainable greener healthcare



Summary of our white paper for greener respiratory healthcare



"Blanket" switching of inhaler types: Why is this a bad idea?

Webinar: The impact of air quality and respiratory health

Podcast: Air Quality and respiratory disease from the perspective of patients

These resources are available via our greener healthcare campaign webpage

Scan the QR code and take the first steps to greener practice

We are grateful to Chiesi for the provision of funding to support the activities of the PCRS Greener Respiratory Healthcare campaign. The campaign has been solely organised by PCRS and Chiesi has had no input in the content.

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PCRS also offers licencing opportunities for bulk reproduction of this journal.

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Primary Care Respiratory Update

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Opening Editorial

Darush Attar Zadeh, *Chair, PCRS Executive*

In September we celebrated another fantastic PCRS conference. It was wonderful to see colleagues from across all four nations joining together once again, and I am delighted that next year's conference will be chaired by Frances Barrett from Northern Ireland.

It is a huge honour for me to have been elected as Executive Chair of this amazing society. Following on from the brilliant leaders who came before me is no small task, but I feel incredibly proud to represent an organisation that continues to grow stronger each year.

What I love about PCRS is its blend of people. We are made up of clinicians representing different disciplines and committees, patient representatives bringing vital lived experience, and of course the Red Hot Irons team who bring it all together. It really does feel like one united voice — all working to improve outcomes for people living with lung conditions.

During my nine years as a member, I've watched PCRS grow into a respected respiratory society that supports everyday practice, influences national policy, and helps shape education and strategy. The society's 10-year plan captures our ambition: moving more care from hospital into the community, promoting self-care and digital solutions, and shifting from sickness to prevention. At the same time, it highlights our passion for protecting the most vulnerable and being kind to the environment. There is so much innovation and best practice to share, and I know PCRS will continue to play a leading role in this.

Respiratory care goes far beyond the lungs. Initiatives such as **Fit to Care** and **Beyond the Lungs** remind us that comorbidities, mental health, and wider wellbeing are just as important as airway disease itself. Our members are a skilled workforce on a continuous journey to improve care, and that commitment is something I find hugely inspiring.

My passion extends across all of primary care. I would like to see the continued expansion of **Additional Roles Reimbursement Scheme (ARRS)**, with greater involvement from community pharmacy in particular. Pharmacies are often the most accessible health and wellbeing centres in our neighbourhoods, and their role in respiratory health is only just beginning to be realised. Alongside this, closer integration with public health teams will strengthen neighbourhood care and help patients find support when they need it most.

Ultimately, PCRS is about people coming together — patients, clinicians, policy makers and educators — with one shared mission. By keeping patients at the centre and working collaboratively across systems, we can deliver the care they deserve.

It is an enormous privilege to serve as Executive Chair, and I look forward to building on the work of those before me as we continue our journey together.

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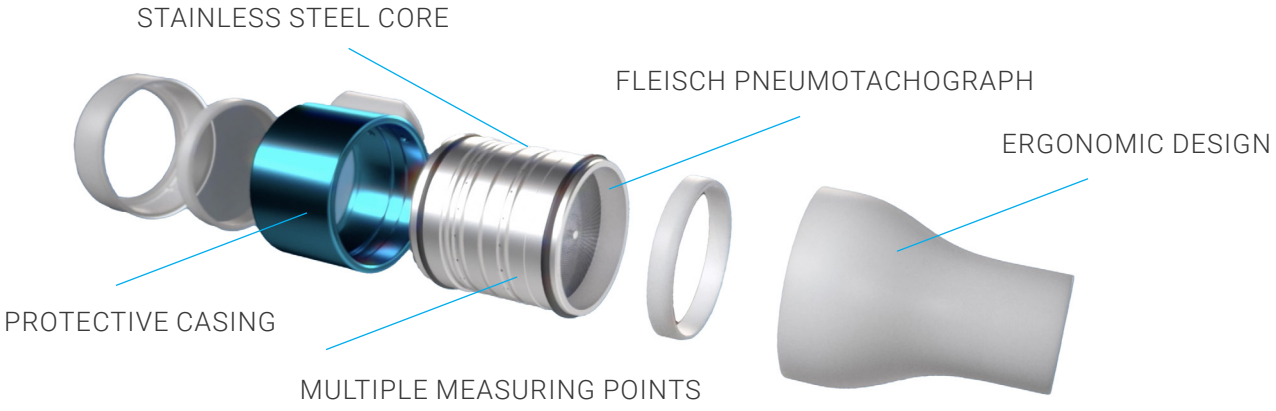

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Reducing winter pressures: How primary care can lead the way and improve lung health

Sarah Elkin, *Consultant, St Mary's Hospital, London*

Introduction

Winter brings predictable surges in respiratory illness and pressure across urgent and emergency care. This paper sets out a practical, primary care-led framework to reduce avoidable demand by acting earlier on respiratory risk. We describe seven interventions:

1. Data-driven risk stratification
2. Personalised self-management planning
3. Maximising vaccination uptake
4. Treating tobacco dependence
5. Smart safe use of chronic obstructive pulmonary disease (COPD) rescue packs
6. Linking with community teams and social prescribers
7. Coordination with community pharmacy.

Each intervention includes concrete 'Actions' for implementation and is supported by real-world case studies. Taken together, these measures offer a replicable approach to anticipatory neighbourhood-based care that can reduce exacerbations and admissions and address health inequalities over winter while improving patient experience and professional collaboration.

The power of primary care

As the cold weather returns, so too does the familiar surge in respiratory illness – and the pressure it brings to an already stretched NHS service. Accident and Emergency (A&E) departments fill up, ambulance call outs spike and hospital beds are pushed to capacity. But what if we could change the story this winter and beyond? Primary care is in a powerful position to prevent many of these winter crises. With smarter proactive approaches to respiratory disease management, we can reduce hospital demand and also deliver more sustainable care closer to home in neighbourhoods.

Intervention 1 – Let data lead the way

Let data lead the way and get ahead by knowing your 'at-risk cohorts'. COPD exacerbations have significant and lasting consequences upon individuals. Even a moderate exacerbation can increase risk of hospitalisation by 21% and the risk of death by 18% in one year.[1] They represent the second most common cause of emergency admission and hospitalisation across the UK.[2] Readmission rates are also high, with 24.4% of patients being readmitted within 30 days of discharge and 43.1% within 90 days.[3] Exacerbations also have systemic effects, with evidence of cardiovascular events following an episode.[4]

The following examples illustrate system searches that can help identify at-risk cohorts.

Condition	Example Search Criteria	Tools / Links
COPD	≥2 courses prednisolone + antibiotics in last 12 months ED attendance/admission	ARDENS COPD risk tool
Asthma	≥1 course prednisolone; SABA overuse (>3 inhalers/year) ED attendance/admission	SPECTRA suspected severe asthma UCLPartners proactive care slides
General (respiratory)	Previous admissions; smokers with long term conditions; recent respiratory discharge	EMIS/SystmOne/QOF searches; local business intelligence (BI) dashboards; HES data

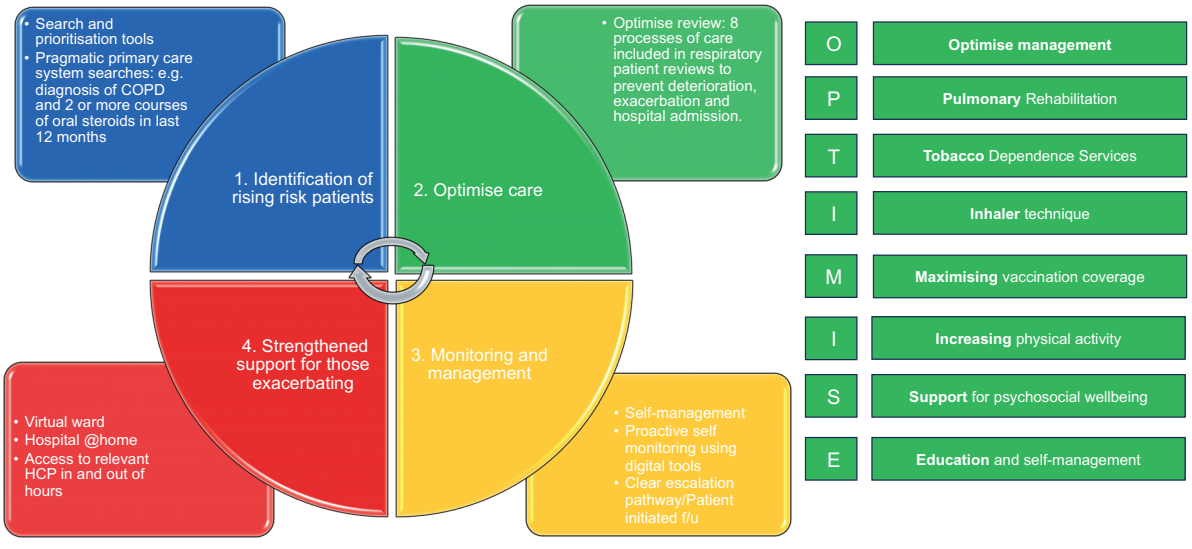
*SABA = Short-acting beta2 agonist, ED = Emergency department, QOF = Quality and Outcomes Framework, HES = Hospital episode statistics

Exacerbation risk search tool: https://future.nhs.uk/connect.ti/NHSatH/view?objectID=57703600
SPECTRA: https://suspected-severe-asthma.co.uk/
UCLP proactive care: https://s42140.pcdn.co/wp-content/uploads/COPD-slide-deck-Version-2.2.pdf
There are other search tools and risk models available in UK.

ACTION **Use searches to identify your at-risk cohorts and flag on your system to enable review.**

Case study: Optimise

Optimise COPD patient identification and management pathway



The winter planning approach led by Lung health@home. The four pilot sites involved in the study, were: Hull University Teaching Hospitals NHS Trust, University Hospital Southampton NHS Foundation Trust, King's College Hospital and Guy's & St Thomas' NHS Foundation Trust, and Cornwall Partnership NHS Foundation Trust. Up to 50% of the cohort did not attend face to face reviews and were reached in different ways , for example community connectors, 'super Saturday' events (cornwall) and through smoking cessation or Drug dependency services. https://future.nhs.uk/NHSatH/view?objectID=259415973.
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Intervention 2 – Personalised self-management plans

Working with patients to co-develop a multi component self-management plan, including agreed actions that are known to decrease exacerbation frequency, reduce hospital attendances and admissions in COPD [5] and asthma. Education is a key part of these plans and should be delivered by healthcare professionals who have a good understanding of lung health. The route to excellence in care for people living with COPD is well established and the instructions are clear:

- treat tobacco dependence
- vaccinate against influenza, zoster (shingles), COVID-19 and pneumonia
- refer for pulmonary rehabilitation (PR)
- co-produce a personalised self-management plan
- optimise treatment for comorbidities

Yet these recommendations are rarely all met. Only a minority of people with COPD receive support to create a self-management plan. Data suggest only 34% have a written action plan.[6] Giving a COPD patient a rescue pack with instructions on when to use it is NOT a self-management plan – it is part of their plan.

- **Ensure your staff delivering COPD reviews are aware of the five fundamentals and know how to explain these to patients.**
- **In winter planning at-risk patients would benefit from receiving a review and development of a self-management plan (Table 1) by staff competent to do so. The optimise approach is more than an annual review it is about addressing factors that are known to increase exacerbations in an at-risk cohort.**
- **Additional tips for winter for people with respiratory conditions are to wrap up warm and avoid going outside when the temperature drops below 2°C. Signposting to the Met Office alerts[7] and, if too cold to walk outside, encourage some exercises inside the home and remind them to do breathing exercises.**
- **People with asthma and COPD should ensure they do not run out of inhalers over the festive season when pharmacies may be closed.**
- **All at-risk babies, children and those with chronic lung conditions should be encouraged to wash their hands regularly and avoid crowded places.**

Table 1. OPTIMISE Framework (O–P–T–I–M–I–S–E) for frequent exacerbation cohort

Element	Assessment/action	Referral/intervention
O – Optimal management	Review prescriptions; consider triple therapy; manage comorbidities	Consider maintenance and reliever therapy (MART) for asthma; step-up per guidelines
P – Pulmonary rehabilitation (PR)	Assess suitability and explain PR benefits	Refer to PR
T – Tobacco dependence	Ask–Advise–Act on smoking status	Refer to cessation services; prescribe nicotine replacement therapy (NRT)/Varenicline as appropriate
I – Inhaler technique	Directly observe technique; device alignment	Train and switch to similar devices where helpful
M – Maximise vaccination	Check and update vaccine status	Offer flu, COVID-19, pneumococcal, respiratory syncytial virus (RSV) (as eligible)
I – Increase physical activity	Advise regular activity tailored to ability	Social prescribing; local activity schemes
S – Support psychosocial wellbeing	Assess anxiety, isolation, financial stres	Refer to wellbeing, social or housing support
E – Education and self-management	Check understanding; reinforce action plan use	Provide written action plans and follow-up

Intervention 3 – Maximise vaccinations

Getting vaccinated against pneumococcal disease and flu can help lower the risk of exacerbations and even death in people with COPD.[8,9] However, vaccination rates in the UK are still not optimal. In 2021–22 only 56% of adults under 65 with long-term breathlessness received a flu vaccine and a similar number (56.8%) had a pneumococcal vaccine.[10] For 2025-26 up to the end of week 45 (09/11/205) 65.1% of over 65 years have received a flu vaccine.[11, 12]

People living in more deprived areas are generally less likely to get vaccinated. Ethnicity also plays a role – for example, black or black British-Caribbean people have some of the lowest flu vaccination rates.[13] Smokers are also less likely to get their vaccines.[14]

People with COPD in particular, should receive all recommended vaccinations in line with the relevant local guidelines. This should include:

- Yearly influenza vaccination,
- SARS-COV-2 (COVID-19) vaccinations,
- One dose of either 21-valent pneumococcal conjugate vaccine or PCV20,
- RSV vaccination, and
- Zoster vaccination to protect against shingles.[15]

They should be considered also, where appropriate, to people with respiratory disease who are considered at risk.

There are many reasons why people might not get vaccinated including concern about side effects, time pressures, confusion about eligibility and lack of social support.[16]

When educating a patient about the flu vaccine, always acknowledge the person's concerns, educate them on simple facts such as the vaccine cannot cause flu (it is not a live vaccine), that benefits for them outweigh the mild side effects (mild aches and fatigue for a few days), encourage them to rest afterwards and keep hydrated. Link the vaccine to their goals of staying out of hospital and offer ease of access.

- **Lead by example and get your flu vaccine and use this for staff communication campaign[17]**
- **Expand clinic hours – offer evening and weekend appointments**
- **Simplify the booking system**
- **Training of local pharmacies to deliver flu and COVID vaccines**

Case study: Blackburn and Darwen

An additional 250 children living in Blackburn and Darwen were vaccinated against flu after the NHS South, Central and West (NHS SCW) immunisation support team identified the reasons why families weren't responding to call-ups. From analysing the operational data, the team was able to identify that the area was highly deprived and also ethnically diverse. Contact centre staff were engaged to call families registered with practices who hadn't taken up the offer of a flu vaccine for their child to understand the reasons why. It soon became apparent that, rather than being worried about the vaccine, the issues were largely logistical. Clinics were only available on weekdays and at limited times. Locations were often difficult to get to, particularly by public transport. Many people, including those whose first language may not have been English, also found the standard letter confusing. The North West regional team used this insight to recommend two simple but effective interventions. Firstly, weekend clinics were arranged in locations with better transport links to increase accessibility for working parents. Secondly, an easy-to-read letter and vaccine benefits leaflet was sent out to over 2000 families in their first language, which was informed by the SCW reporting. The letter also went out from the local GPs in multiple languages. Not only did this format enable recipients to understand the information but, by sending the letter from local GPs, the information was reassuringly also reassuringly coming from someone known to them.

Intervention 4: Offer treatment and support for tobacco dependence

Smoking is strongly linked to an increased risk of respiratory infections, both acute (such as influenza, pneumonia and COVID-19) and chronic (such as chronic bronchitis and COPD exacerbations). Evidence from UK and international research consistently shows that smoking weakens respiratory defences and increases susceptibility to infection.18 Smokers are up to 2–3 times more likely to develop symptomatic flu and related complications such as pneumonia. A 2010 *BMJ* meta-analysis found that current smokers had more than double the risk of community-acquired pneumonia compared with non-smokers.[19] More recent research has also shown that smoking is associated with more severe outcomes from viral infections such as COVID-19. A study published in *Thorax*[20] found that smokers faced higher risks of severe disease and hospitalisation. Children exposed to second-hand smoke are also more likely to develop bronchiolitis, bronchitis and ear infections.[18] Ongoing smoking increases the risk of exacerbation in COPD[21] and is associated with poorer outcomes in asthma.[22]

The mechanisms appear to be:

- Impaired mucociliary clearance – cigarette smoke paralyses and destroys cilia that clear mucus and pathogens from the airways.[18]
- Inflammation and tissue damage – chronic irritation inflames the airway linings, creating easier entry points for bacteria and viruses.[18]
- Reduced immune function – smoking suppresses macrophage and neutrophil activity, weakening the immune response.[20]
- Altered airway microbiome – smokers' airways host more harmful bacteria, increasing the likelihood of infection.[19]

Smoking cessation reduces infection risk within months, as airway cilia begin to recover within weeks.
Effective treatments include combination nicotine replacement therapy (NRT) and Varenicline, both of which can be prescribed in primary care.

Smoking cessation reduces infection risk within months, as airway cilia begin to recover within weeks. Effective treatments include combination nicotene replacement therapy and Varenicline both of which can be prescribed in primary care.

- **Make every contact count – ask, advise and act (Very Brief Advice) at every appointment**
- **Consider embedding smoking services with your flu vaccination programme**
- **Know how to prescribe dual NRT, Varenicline and Cytisine**

Intervention 5: Rescue packs: smart use, not overuse

In patients experiencing exacerbations of COPD, systemic steroids and antibiotics can improve lung function and shorten recovery time including duration in hospital. However, frequent or inappropriate use of rescue packs may lead to adverse outcomes, particularly due to risks associated with systemic oral corticosteroids and growing concern of antibiotic resistance. The side effects of oral corticosteroids are well documented and can include pneumonia, osteoporosis, cataracts, weight gain, sleep disturbances and anxiety.

There is growing evidence that patients are overusing rescue packs, either because they don't understand when to use them or because they equate small changes in their day-to-day condition with an exacerbation. This has potentially harmful consequences for the patient, including antibiotic resistance. A trial of self-management with rescue packs showed increased mortality in the treatment group,[23] so they should only be prescribed with caution and by healthcare workers who understand how to explain usage, side effects and route of escalation.

Previous exacerbation is the largest risk factor for future exacerbations.[24] If a patient has had more than one rescue pack, emergency department attendances with exacerbations or admissions over the last 12 months, they are your 'at-risk' patients. These patients should be reviewed and their care optimised.

- It is essential that individuals are educated on when and how to use the rescue packs and given a number to contact for support should they exacerbate. Do not put rescue packs on repeat prescriptions. Ensure that patients have a contact number to inform someone when they have started their rescue pack, and that they can be seen at the next available urgent appointment. This is because patients with COPD may develop other life-threatening illnesses (eg, heart failure, pulmonary embolism, acute coronary syndrome)
- Use care navigators or reception triage to offer same day appointments with competent clinicians for those rising risk individuals with acute wheeze or worsening cough. Offer respiratory slots during peak days (Mondays in winter). Spread the workload to benefit the patient. If you have a community respiratory team, work with them and ensure patient initiated follow-up is embedded in their service
- If exacerbations are frequent, ensure all appropriate investigations have been done (for example: full blood count, HBA1C, sputum MC&S, CXR +/- HRCT thorax if bronchiectasis suspected) ensure all care is optimised and refer to specialist respiratory services in the community or secondary care for further review, imaging and for consideration of prophylactic antibiotics
- In patients with frequent exacerbations and elevated blood eosinophils, the addition of inhaled corticosteroids to dual bronchodilator (triple therapy) should be prescribed.

Intervention 6: Link with community teams and social prescribers

The wider determinants of health such as deprivation, poor housing and employment status strongly influence the ability of clinicians to deliver care to people. Cold or damp homes, fuel poverty, outdoor pollution, indoor pollution and substance abuse can all be silent contributors to repeated exacerbations. Lack of support, including financial barriers to attending appointments and inability to pay for medication, need to be recognised and support enabled. While it must be acknowledged that structural issues with equity in COPD care cannot be addressed by individual health professionals in their clinical encounters, action can be taken by a wider neighbourhood team to mitigate some harms.

- Know how to refer into your warm home schemes
- Utilise your social prescribing link workers or community connectors to support people from more deprived areas and those who are harder to reach or do not engage
- Link with hostels and drug dependency units
- Link in with third sector, local authority and mental health teams
- Co-manage complex patients within a multidisciplinary team (MDT) with specialist input/integrated respiratory teams and extended support

Case study: Cheshire and Merseyside

In 2022, around 468,829 households were estimated to be in fuel poverty in Cheshire and Merseyside. Winter presents significant challenges for this population, particularly as cold temperatures are known to exacerbate respiratory conditions. Graphnet developed a Fuel Poverty Dashboard using the CIPHA (Combined Intelligence for Public Health Action) data platform. CIPHA links health and social care data across Cheshire and Merseyside, supporting NHS and partner organisations to understand and map population health data for service design and improvement. The dashboard stratified the fuel-poor population using factors such as risk of admission, mortality risk and living circumstances (eg, living alone). Identified patients were contacted by phone and booked into a face-to-face clinic session. Clinics were held once a week, with each patient allocated a 30-minute slot. Administrative staff used three days per week for triage and booking appointments. The intervention was delivered collaboratively by the Community Respiratory Team and Family Hub, bringing together clinical, social and community resources to address the combined challenges of respiratory health and living conditions. The intervention decreased ED attendance by 5% and referred 82% of those seen to local authority support services for fuel support. The project has led to high-risk children being reviewed and monitored by the respiratory nurse. Once the patient is stable on medication, care is transferred back to the GP.

Intervention 7: Pharmacy

Make full use of our brilliant pharmacy colleagues. For minor infections and acute symptoms, they can be the first port of call. Neighbourhood pharmacists can also support with stop smoking, deliver vaccines and can demonstrate inhaler technique.

Pharmacies in some areas are actively participating in public health campaigns in collaboration with the Public Health Agency (PHA) and other bodies. These campaigns involve providing advice and information on managing common winter ailments such as coughs and colds, promoting good hygiene practices ("catch it, bin it, kill it"), encouraging eligible people to get their winter vaccines and offering general health promotion messages about staying warm and eating well.

- **Hold a joint GP–pharmacy winter planning meeting via primary care networks (PCNs)**
- **Share campaigns "think pharmacy first this winter"**

Pharmacists can:

- Reinforce self-management for asthma/COPD during prescription dispensing
- Check inhaler technique
- Ensure not overusing rescue packs
- Signpost to flu/COVID vaccines
- Offer support for tobacco dependency

Summary Box – Key Messages

This paper outlines a proactive data-driven approach to reducing winter pressures through improved management of respiratory disease in primary care. It highlights seven practical interventions covering population risk stratification, personalised self-management, vaccination, smoking cessation and collaboration across integrated respiratory teams and pharmacy networks. Drawing on real-world case studies from across England, including the OPTIMISE model and fuel poverty initiatives, the paper demonstrates how integrated anticipatory care can prevent exacerbations, reduce admissions and improve patient outcomes. It emphasises early identification of risk, practical self-management support and coordination between general practice, pharmacy and local authority services. The approach aligns with national priorities for winter resilience and health inequality reduction, offering an evidence-informed framework for sustainable respiratory care in neighbourhood settings.

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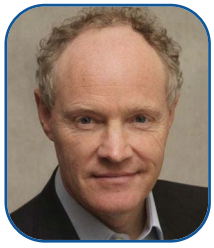
Keeping it Simple: A PCRS consensus on the treatment of COPD in the UK



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In this article the authors review current evidence and guidance for the treatment of Chronic obstructive pulmonary disease (COPD) to bring up to date the Primary Care Respiratory Society (PCRS) consensus approach and algorithm first published in 2017 and then again in 2023 known as 'Keeping it Simple'.

Background

COPD is the second most common lung disease in the United Kingdom.[1] An estimated 2.2% of the adult population are living with a diagnosis of COPD in 2022, equating to more than 1.2 million people.[1] While the prevalence of COPD in the UK is comparable to that of other European countries, we have the 3rd highest mortality rate from the disease.[2] These figures are a stark reminder that we still have some way to go to improve the lives and outcomes of people diagnosed with COPD in the UK.

Over the past decade, the UK has been playing catch up in terms of clinical guidelines for the diagnosis and management of COPD. In an attempt to address this, from a primary care perspective, in 2017 PCRS published a treatment algorithm for COPD in the UK focusing on pharmacotherapy.

'Keeping it Simple' was originally developed as a response to requests from local medicines optimisation teams and prescribers in primary care who wanted more clarity about the most appropriate pharmacotherapy for COPD. The National Institute for Health and Care Excellence (NICE) guideline in use at that time had been published in 2010 using at the latest, 2009 evidence and classifying treatment options based on airflow limitation cut-offs. Whereas, the Global Initiative for Chronic Obstructive Lung Disease (GOLD) had been updating its approach every 18-24 months and at the time was sharing a new approach of differentiating treatment based broadly on whether people with COPD experienced predominantly exacerbations or breathlessness.

The 'Keeping it Simple' approach that was developed, like GOLD, recognised that the evidence supported predominant breathlessness or exacerbations treatment pathways, but PCRS in addition added a third pathway for people with both asthma and COPD.

NICE published a new COPD guide in 2018 with an update in July 2019.[3] This update attended to two significant omissions in the 2018 refresh with regard to the role of triple inhaled therapies and the duration of oral corticosteroid (OCS) treatment. This guideline notably now aligned with the PCRS 'Keeping it Simple' third treatment pathway for people with 'COPD with asthma', with its focus on the presence of asthmatic features as a main 'treatable trait'.

GOLD published for 2023[4] a new pharmacological approach and taxonomy that represented such a material change that it has now prompted PCRS to review 'Keeping it Simple' to ensure that it reflects the current evidence and the practicalities of prescribing within a UK health economy. The GOLD report incorporates the results of recent longitudinal studies and Phase 3 drug trials. These studies are changing how

we view COPD at the most fundamental level and consequently how we approach the treatment of patients. GOLD has a 2025 update which maintains the same key messages as the 2023 guideline, with a few important additions.[5]

2025 GOLD guidelines

Assessment and classification of COPD

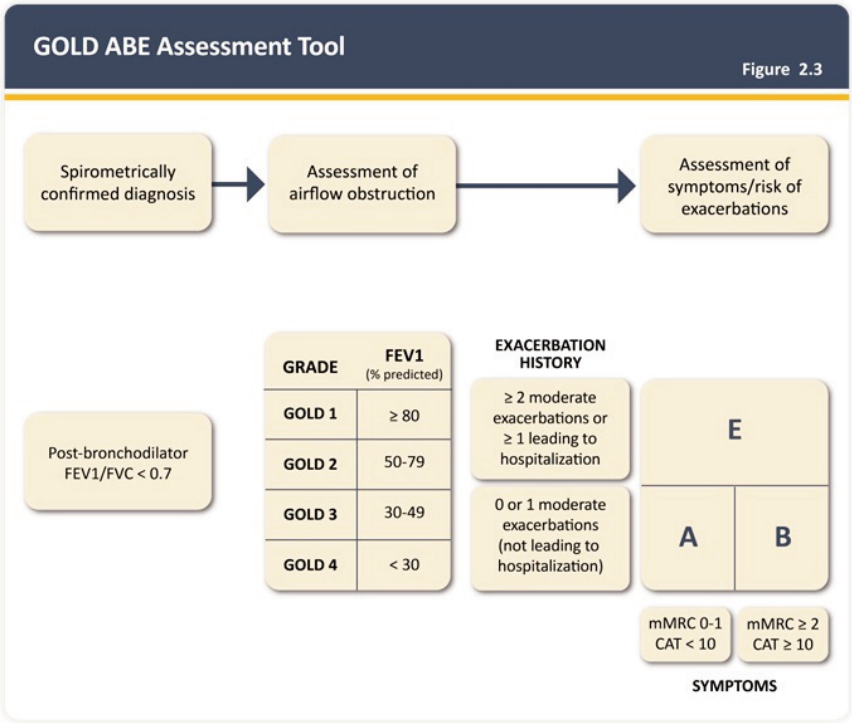
The 2023 GOLD guideline included a major change in the way COPD is assessed and classified. The GOLD Refined Assessment Tool, first introduced in 2017, included spirometric assessment of airflow obstruction and grouping of patients based on symptoms (primarily breathlessness) and recent history of ex- acerbations (as an indicator of future exacerbation risk). The orig- inal model stratified patients into four groups (A, B, C and D) based on high or low exacerbation risk and high or low symptoms. Initial pharmacological treatment was determined on the basis of these groupings. The recommendation for patients with a low exacerbation risk was a bronchodilator for those with a low symptom burden (Group A) and a long-acting bronchodilator (LABA or long-acting muscarinic agent [LAMA]) for those with a high symptom burden (Group B). For patients with a high exacerbation risk, a LAMA was recommended for those with a low symptom burden (Group C) with combination therapy (LAMA + LABA or LABA + inhaled corticosteroid [ICS]) for those with a high symptom burden (Group D).

While the assessment of severity based on spirometric evaluation remained in the 2023 report, the grouping of patients by symptom burden and future exacerbation risk changed (Figure 1) along with the recommended initial pharmacotherapy for each group (Figure 2).

Management of patients with a low risk of future exacerbations. While treatment for patients with a low exacerbation risk and low symptom burden (Group A) remains the same, a monotherapy approach has been abandoned for patients with a low exacerbation risk and high symptom burden (Group B). For these patients, the initial treatment should be LABA + LAMA combination therapy, preferably in a single inhaler. These recommendations are based on the results of Phase 3 clinical trials of several LABA/LAMA combinations which consistently demonstrated improved lung function and health-related quality of life compared with either agent alone and also when compared with a LABA + ICS regimen.[6] Indeed, the 2023 report was very clear that there is no longer a role for the LABA + ICS combination for the initial treatment of patients with COPD at low risk for exacerbations. The recommendation is maintained in the 2025 guidance.

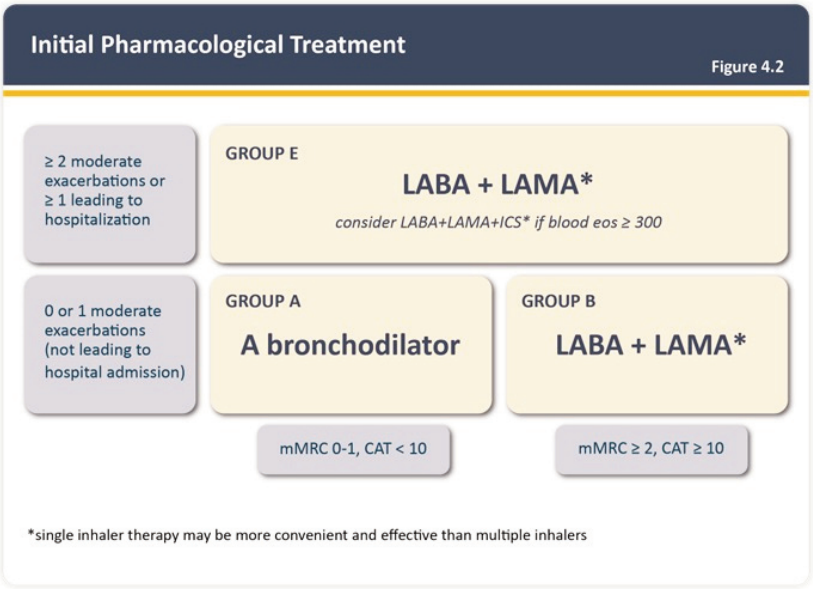
Management of patients with a high risk of future exacerbations. Perhaps the most significant change is that patients at high risk for exacerbations are no longer stratified by symptom burden. Instead, these patients are grouped together as Group E, with initial treatment being a LABA + LAMA combination (Figure 2). For these patients, a more rational approach to ICS use is recommended, guided by clinical factors and blood eosinophil levels. Patients that are unlikely to benefit from an ICS are those with a blood eosinophil count <100 cells/µL. ICS therapy can be considered for patients with a blood eosinophil count between 100 and <300 cells/µL who have had one moderate COPD exacerbation in the previous year. Patients most likely to benefit from ICS therapy are those with a blood eosinophil count >300 cells/µL, a history of hospitalisation for COPD exacerbations, ≥2 moderate exacerbations a year or with a history of, or concomitant asthma. When considering starting an

Figure 1. The GOLD ABE Assessment Tool[5]



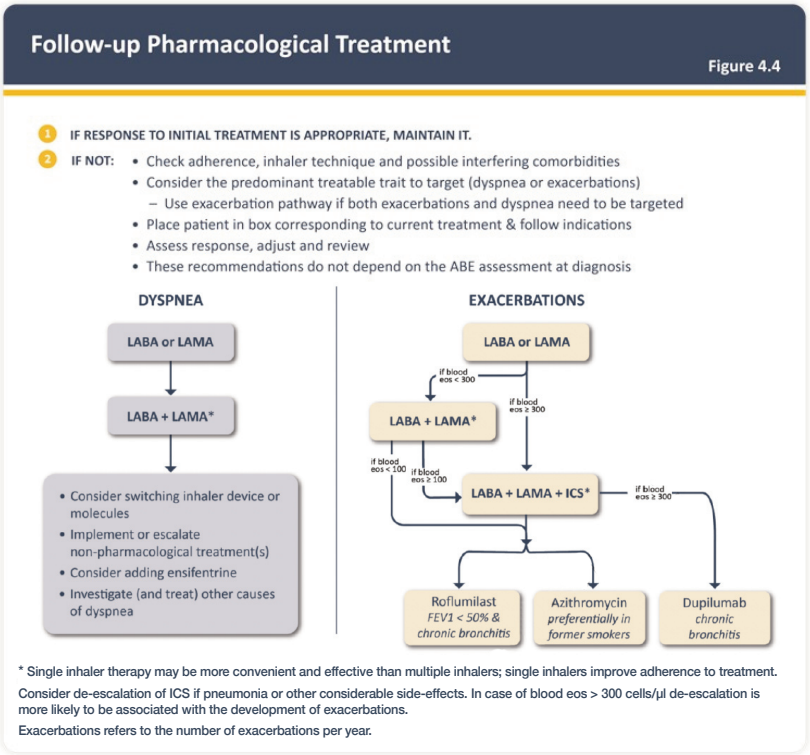
CAT, COPD Assessment Test; MRC, Medical Research Council; FEV1, forced expiratory volume over 1 second; FVC, forced vital capacity.

Figure 2. Initial pharmacological treatment of COPD[5]



CAT, COPD Assessment Test; ICS, inhaled corticosteroid; LABA, long-acting bronchodilator; LAMA, long-acting muscarinic agent; MRC, Medical Research Council.

Figure 3. GOLD follow-up pharmacological treatment[5]



CAT, COPD Assessment Test; eos, eosinophils; FEV_1, forced expiratory volume over 1 second; ICS, inhaled corticosteroid; LABA, long-acting bronchodilator; LAMA, long-acting muscarinic agent; MRC, Medical Research Council.

ICS, blood eosinophils are not the only useful factor. There are known harms of ICS use, including an increased risk of pneumonia and of mycobacterial infection. Patients with a history of recurrent pneumonia and those with a previous mycobacterial infection should not routinely be started on ICS as the harms may well outweigh the benefits. These fundamental changes to the classification and initial treatment of patients with a high risk of future exacerbations reflect the findings of the ECLIPSE study. This study showed that eosinophil count, an indicator of underlying inflammation, was a better predictor of response to ICS therapy than was a high symptom burden.[7]

Management of patients with ongoing symptoms or exacerbations. The rational approach to the use of ICS therapy based on evidence of an underlying inflammatory process, greatly simplifies both the approach to initial treatment and the follow-up treatment decisions (Figure 3). The first step for any patients with ongoing symptoms or repeated exacerbations is to review and optimise their current treatment regimen – check inhaler technique, consider whether any comorbid conditions are present or require review. Next steps depend on whether the patients have ongoing breathlessness or repeated exacerbations, regardless of their initial grouping.

Patients with ongoing breathlessness who were receiving bronchodilator monotherapy can be escalated to combination LABA + LAMA therapy. For those already on combination therapy, switching to an alternative device or molecule can be considered alongside a focus on treatment optimisation, non-pharmacological management, and investigation of alternative causes of breathlessness.

Patients with ongoing exacerbations can be escalated to triple therapy including an ICS if elevated eosinophils to >300 cells/µL, or to roflumilast (for those

with an FEV_1 <50% and chronic bronchitis) or azithromycin (preferentially in former smokers). The 2025 report has added dupilumab for consideration in patients on triple therapy, with an eosinophil count above 0.3 and chronic bronchitis. This is based on the results from 2 phase III trials (BOREAS and NOTUS).[8,9] Dupliumab is currently under review by NICE. However, the reliance on elevated blood eosinophils as the single biomarker for ICS initiation in exacerbating patients has its critics, not least because the question remains as to when to assess for eosinophils as a patient with a recent exacerbation who has received oral steroids (prescribed or via their emergency pack) may not meet the 300 cells/µL cut-off.

2019 NICE guidelines

So where are we with NICE guidance? Initial therapy for all patients with COPD remains single bronchodilator therapy with a short-acting bronchodilator (SABA) or short-acting muscarinic antagonist (SAMA) (Figure 4). Patients limited by symptoms or exacerbations can then be treated more aggressively if asthmatic features are present.

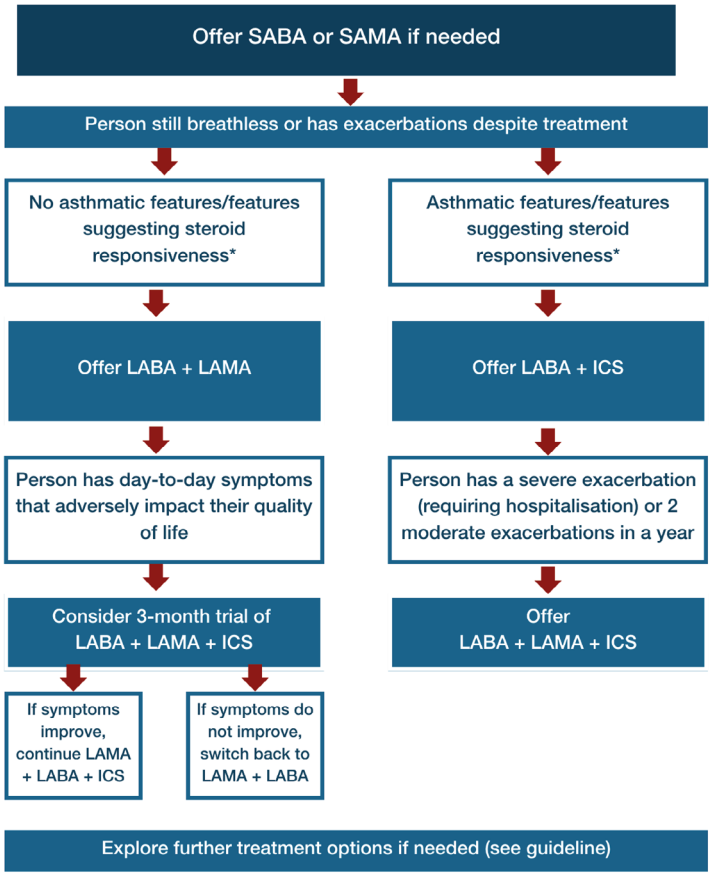
This is the first and major difference from the 2025 GOLD guidelines. Whereas GOLD focuses on symptoms and future exacerbation risk as the 'treatable traits' guiding pharmacotherapeutic decision making, NICE has continued to focus on the presence of asthmatic features as the main 'treatable trait'.

Management of patients with asthmatic features. For patients with features suggestive of an asthmatic component (secure diagnosis of asthma or atopy, higher blood eosinophil count, substantial variation in FEV_1 over time or substantial diurnal variation in peak expiratory flow), a combination LABA + ICS can be considered. A limitation here is that the cut-off for 'higher eosinophil count' is not specified although it is generally accepted as >300 cells/µL. Triple therapy with the addition of a LAMA can subsequently be offered for patients who experience a severe exacerbation (requiring hospitalisation) or who experience 2 moderate exacerbations within a year.

Management of patients without asthmatic features. Patients without asthmatic features can be offered a LABA + LAMA and, if symptoms continue to impact their quality of life, a 3-month trial of triple therapy with LABA + LAMA + ICS can be considered. This approach differs from the 2023 GOLD report as it still allows for a trial of treatment with ICS even in the absence of a single point of evidence of underlying inflammation – blood eosinophils >300 cells/µL required by GOLD.

Unfortunately, the 2019 update did not address the concern around including an option for a 3-month trial of triple therapy for patients with ongoing breathlessness but no evidence of an increased risk for future exacerbations. As we have seen from the ECLIPSE study,[7] ongoing breathlessness is not a good indicator for response to ICS therapy and it was for this reason that the 2025 GOLD update elected to require elevated eosinophils as a marker of underlying inflammation as a pre-requisite for ICS initiation. Allowing triple therapy as an option for patients with ongoing breathlessness is concerning as it is unlikely to prove benefit in relieving their breathlessness and may cause a delay in seeking alternative causes for their chronic breathlessness. This approach will mean that a proportion of patients will be escalated to triple therapy and receive an ICS from which they will gain no clinical benefit and which may place them at increased risk for

Figure 4. NICE inhaled therapies algorithm[3]



* 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 FEV_1 over time (at least 400ml) or substantial diurnal variation in peak expiratory flow (at least 20%)

pneumonia. While the NICE 2019 update recommends that patients whose symptoms do not improve after a 3-month trial of triple therapy should step down to a dual bronchodilator regimen without an ICS, whether this is feasible and currently part of routine practice is unclear.

Updating the PCRS 'Keeping it Simple' approach

On reviewing the latest approaches from GOLD and NICE and reflecting on the latest evidence at the time of writing, the authors, representing PCRS, have reached a new consensus on the management of patients with COPD in the context of UK primary care and have updated the 'Keeping it Simple' algorithm (Figure 5). Indeed, the recent updates to the GOLD and NICE guidance reflect the approach, laid out by PCRS in the original 2017 document, to initial and follow-up pharmacological management of COPD. PCRS guidance on treatment decision-making considers both the treatable traits described in the 2025 GOLD guidance – breathlessness and exacerbations – as well as the asthmatic component which is a significant feature in the NICE guidance.

In the 2025 update, the three treatment groups remain the same and reflect the different clinical needs and likely underlying pathology associated with these treatable traits. Patients with an asthmatic component will require ICS and this should form a part of their initial treatment regimen.

- Patients with **predominant breathlessness** as their major clinical feature and without asthma will not benefit from ICS therapy and their treatment should focus on bronchodilation; SABA plus LABA or LAMA with progression to LABA + LAMA depending on the impact of their breathlessness on their daily activities. In this update, this pathway does not change.
- Previously, patients who were **predominantly exacerbating** would start on a SABA in addition to a single bronchodilator, either a LAMA or LABA. In this update, PCRS now recommends that the starting point for this group is dual therapy with LAMA+LABA in a single inhaler device in addition to SABA.

ICS (triple therapy) can be used in addition to dual bronchodilation in the predominantly exacerbating group if they continue to experience exacerbations, particularly if these are events that require hospitalisation.

Adding ICS is most likely to give benefit if eosinophils are >300 cells/μL and unlikely to produce benefit if <100 cells/μL. In this update, PCRS now recommends that when deciding to add ICS, attention should be paid to eosinophil levels. The index test should have been taken at a time when the patient is not exposed to oral corticosteroids or unwell with an exacerbation.

A trial of mucolytics can be considered for people with cough productive of sputum but only continued if there is clear symptomatic improvement. Routine use to prevent exacerbations is not recommended. A diagnosis of bronchiectasis should also be considered for people with COPD who have significant mucus production.

- For patients who have **COPD with asthma**, initial therapy in this update has changed to LABA+LAMA+ICS in a single inhaler device with SABA for rescue bronchodilation.

The new position follows the GOLD 2023/2025 approach i.e. when an inhaled corticosteroid (ICS) is indicated, this should be prescribed as a long-acting beta2 agonist (LABA)/long-acting muscarinic antagonist (LAMA)/ICS triple inhaler rather than as part of dual LABA/ICS therapy—this is because LABA/LAMA/ICS triple therapy has demonstrated superior efficacy in reducing exacerbations and lowering mortality compared with dual LABA/ICS therapy.

At each stage, medication optimisation should be undertaken including checking the patient's inhaler technique and their adherence.[10] In the case of any patient with COPD requiring ICS, there should be careful consideration of whether a specialist review is required. People with asthma and COPD who have poor control may benefit from biologic therapies and a referral is required to consider this.

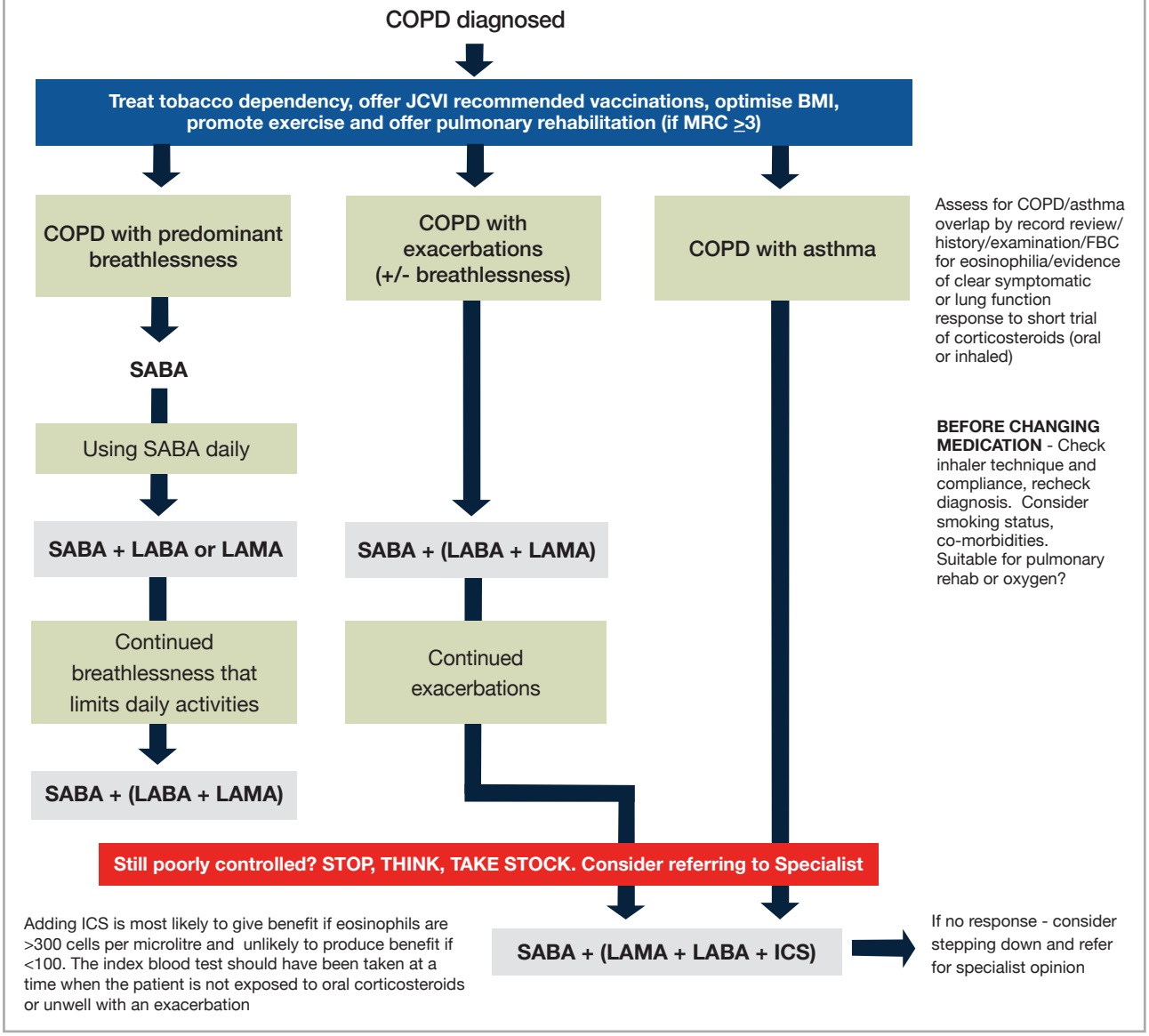
PCRS recommends the use of single inhaler devices where dual or triple therapies are indicated.[11]

In addition, ongoing monitoring of patients should include reviewing for comorbidities (especially alternative causes of breathlessness[12]) and whether pulmonary rehabilitation has been offered and attended as well as treating tobacco dependency.[13] Vaccinations should be offered according to current nationally recommended programmes which would currently include immunisation against influenza annually, SARS-CoV-2 and pneumococcus. The UK Joint Committee on Vaccination and Immunisation (JCVI) has recently approved the Respiratory Syncytial Virus (RSV) vaccination for older adults to reduce the risk of lower respiratory tract infections and exacerbations from patients with COPD.[14]

Conclusion

The 'Keeping it Simple' algorithm seen in Figure 5 describes the 2025 update of the PCRS consensus approach to treating COPD. Overall, both GOLD and NICE appear to be catching up with the pragmatic recommendations PCRS first made in 2017. Steroid stewardship, both oral and inhaled, remains relevant to avoid exposing patients to treatments that will not benefit them and which may in fact place them at risk for side effects. Looking back over the last decade, we have come a long way in our understanding of the heterogeneity of COPD and this has informed how best to manage patients according to the treatable traits that are most significant for them. While a cure for COPD remains elusive and treatment is largely reactive to clinical presentation, there is much we can do to ensure patients receive treatments that relieve their most impactful daily symptoms, optimise their lung function and reduce their risk for life-threatening exacerbations.

Figure 5. PCRS Keeping it Simple approach 2025



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Antibiotics and sputum

Primary Care Respiratory Society (PCRS) position statement

The Primary Care Respiratory Society (PCRS) advocates that:

- **All healthcare professionals have a duty to maintain antibiotics stewardship;**
- **Healthcare policy makers need to invest in ways to ensure antibiotics are prescribed appropriately;**
- **Antimicrobial stewardship should be a measure of quality of healthcare service provision;**
- **Commissioners should prioritise measures that improve decision-making regarding antibiotic prescribing;**
- **Research into all respiratory infection especially tuberculosis (TB) and multidrug-resistant TB (MDR-TB) should be supported;**
- **There should be increased public awareness and education around antimicrobial resistance (AMR) and the risks associated with this; and**
- **There should be further research and development of guidelines on the best practice in prescribing antibiotics and the importance of sputum for managing respiratory infection in primary care setting.**

Sputum and antibiotic prescribing

- **Antibiotic prescribing in respiratory infection should be guided by clinical assessment and the available diagnostic tools, taking into consideration the risk of antibiotic resistance and the overall clinical picture.**
- **Microbiology culture and sensitivity (M C and S) is not routinely recommended unless it is a moderately severe community-acquired pneumonia.**
- **In the case of COPD exacerbation, antibiotics should be considered if there is a considerable change in the colour and amount of sputum. Consider the use of point of care CRP testing to support the decision and use previous results of sputum M C and S to guide treatment.**
- **Bronchiectasis should be suspected in patients with daily productive sputum. Send sputum for M C and S diagnosis before starting antibiotic treatment and before starting prophylactic antibiotic treatment. Do not delay antibiotic therapy awaiting the results and change accordingly if the results are different.**
- **If TB is suspected, early morning sputum on 3 CONSECUTIVE DAYS should be sent for acid-fast bacilli C and S and specialist molecular and sensitivity tests.**
- **In palliative care there are multiple causes of increased sputum production. A purulent, thick or green sputum could be considered as infective and treated according to the overall clinical picture.**

Background

Antibiotics are crucial for managing infectious diseases and preventing complications like pneumonia or sepsis. However, antimicrobial resistance (AMR) poses a growing global health threat, contributing to over 3 million deaths annually.[1] While resistance can occur naturally, the misuse and overuse of antibiotics significantly accelerate this process, rendering treatments less effective or ineffective.[2] Patients with resistant infections face higher mortality risks within 30 days compared to those with antibiotic-sensitive infections.[3] This increases the spread of disease, severe illness and mortality rates.[1] In England, the UK Health Security Agency (UKHSA) reported a 12.8% rise in antibiotic-resistant infections, from 59,171 in 2018 to 66,730 in 2023. Deaths from severe antibiotic-resistant infections also rose by 27.9% between 2019 and 2022. Addressing AMR requires urgent efforts to promote responsible antibiotic use and develop effective strategies to combat resistance.[3]

AMR imposes significant financial and operational burdens on healthcare systems and national economies. It drives the need for more expensive and intensive treatments and reduces productivity by extending hospital stays for patients and increasing caregivers' demands.[1] Notably, data indicate that individuals living in more deprived communities are 42.6% more likely to experience antibiotic-resistant infections compared to those in the least deprived areas, highlighting the unequal impact of AMR on vulnerable populations.[3]

72% of most antibiotics are prescribed in general practice in England, compared to 20% in hospital inpatient and outpatient settings, making it critical to address antimicrobial overuse in general practice to effectively combat AMR.[3] Acute respiratory tract infections (RTIs) are the most managed condition globally in primary care, though the majority of RTIs are viral. Current UK guidelines for respiratory diseases advocate selective antimicrobial prescribing strategies for most patients.[4–8] Evidence shows that, for RTI in patients without underlying lung disease (e.g. asthma, chronic obstructive pulmonary disease (COPD)), antibiotics yield minimal benefit, reducing illness duration by less than one day in a typical course.[9,10]

Despite this, 80% of the prescribing of oral antibiotics for acute RTIs were prescribed often as a precaution.[8] In children, evidence strongly suggests that antibiotics such as amoxicillin are clinically ineffective for uncomplicated RTIs unless pneumonia is suspected.[11] Furthermore, patients prescribed antibiotics for RTIs in primary care have an increased risk of developing bacterial resistance to those antibiotics, particularly within the month following the course, with effects that can persist for up to a year. This not only escalates resistance to first-line antibiotics but also creates a need for second-line antibiotics within the community.[12]

There have been studies that have looked at the cause and relationship of the antibiotics prescribing for RTIs:

- Around 13% of patients in general practice who initially received antibiotics for RTIs are inclined to re-consult their general practitioner (GP) and receive a repeat prescription because of persisting symptoms, particularly for lower RTIs which typically last up to 28 days.[9,13,14]
- Consultation behaviour and prior antibiotic repeats were the main factors associated with repeat antibiotic prescriptions. Of the antibiotics prescribed, 50% were antibiotics in the same class.[15]
- Other studies have highlighted that clinicians working longer hours were 4–5 times more likely to prescribe antibiotics. This was also associated with GP practices with burnout symptoms, greater job dissatisfaction and turnover intentions.[15]
- Qualitative studies have also shown that GPs often find guidelines less usable in clinical situations and are pressured to prescribe antibiotics by patients, parents and certain settings.[16]

The UK AMR National Action Plan 2024–2029 has set an ambitious goal to reduce total antibiotic use in human populations by 5% from the 2019 baseline.[17] Achieving this target requires enhanced antimicrobial stewardship in primary care through the following strategies:[17]

- Clinicians providing clearer safety netting for patients when not prescribing antibiotics would instil confidence in patients returning appropriately which may warrant the prescribing of antibiotics.[11]
- Implementing local policies to support practices to help reduce antibiotic prescribing for RTIs.[18]
- Changing clinicians' behaviours surrounding prescribing antibiotics and understanding the long-term effects of using antibiotics.[16,19] NHS England has developed resources to support and educate clinicians in primary care on the risks of AMR.[20]
- Training to support primary care professionals to target the use of antibiotics to reduce AMR through Future Learn.[21]
- The use of delayed antimicrobial prescribing in RTIs is safe and effective for most patients including those in high-risk groups. This showed that it was less likely to lead to poorer symptom control and longer symptom duration than immediate antibiotic prescribing.[22]
- Improving the diagnostic coding for RTIs when prescribing antibiotics to highlight prescribing that falls in line with current guidance.[19]
- Improving public awareness, perceptions and understanding through better campaigns and patient resources to help the public understand about the lack of benefit of antibiotics for most RTIs and addressing concerns about illness duration and severity.[16,23]
    - Treat Antibiotics Responsibly, Guidance, Education and Tools (TARGET) produced by the UK Health Security Agency (UKSHA) in collaboration with the Royal College of General Practitioners (RCGP) have provided tools and resources for primary care such as:
        - Clinical audits to review antimicrobial prescribing – for example, repeat and long-term prescribing of antibiotics in COPD.[24]
        - Webinars to support clinicians having conversations with patients about delayed antibiotic prescribing or why antibiotics may not be appropriate for them and how to improve the prescribing of antibiotics in RTIs.[25,26]
        - Patient-facing material to be used to help facilitate conversations with patients during consultations regarding their RTI.[27]
- Engaging teams to be involved in public health campaigns such as World Antimicrobial Resistance Awareness Week.[28]
- The use of C-reactive protein (CRP) point of care testing

(POCT) in primary care has been shown to enhance the quality of the antibiotic prescribing decisions for patients with RTIs alongside good patient and clinician acceptability and cost-effectiveness.[29,30]

All the steps above will help to reduce the consultation rates, AMR and overprescribing of antibiotics. Nevertheless, a 10% reduction of antibiotics in RTIs in primary care may have a slight increase in the incidence of treatable pneumonia and peritonsillar abscess. However, these numbers are still very small, with the incidence rate of 1.1 more cases of pneumonia each year and 0.9 more cases of peritonsillar abscess each decade based on an average practice size of 7000 patients.[18]

Key issues

Tuberculosis (TB)

TB is a major contributor to AMR. Multidrug-resistant tuberculosis (MDR-TB) arises when TB bacteria become unresponsive to isoniazid and rifampicin, the two most effective first-line TB drugs. While MDR-TB remains treatable and curable with second-line drugs, these alternatives are often costly, have toxic side effects, and may lead to further drug resistance in some cases, therefore limiting further treatment. The number of MDR-TB cases increased in 2023 compared with 2022, thus posing a critical public health threat. In 2022, only around 40% of those with drug-resistant TB accessed necessary treatment.[1,3]

Safety concerns

Beyond concerns related to AMR, certain respiratory infections necessitate the use of fluoroquinolone antibiotics due to the specific nature of the causative organisms. The Medicines and Healthcare products Regulatory Agency (MHRA) has issued safety alerts to clinicians, emphasising the risks associated with fluoroquinolones, which can lead to disabling, potentially long-lasting, or irreversible side effects in patients. As a precaution, patients are now provided with information leaflets detailing these potential side effects.[31]

Prophylactic antibiotics

Antibiotics such as azithromycin, used for prophylaxis in exacerbations, should be prescribed under specialist guidance as they require a comprehensive patient assessment to ensure efficacy and safety. Beyond its antimicrobial properties, azithromycin has demonstrated anti-inflammatory and immunomodulatory effects, making it a potential treatment strategy for various chronic inflammatory airway conditions.32 Any prophylactic antibiotic should be annually reviewed as part of the patient's COPD review to ensure it is still effective and if it can be stopped with the advice of the specialist.[33]

Rescue packs

Rescue packs, initially recommended by NICE for COPD patients at risk of exacerbations, have frequently been overused without sufficient monitoring and patient education. Furthermore, they are often inappropriately prescribed for other respiratory conditions, also lacking adequate oversight. Rescue packs, which contain prednisolone and antibiotics, should be carefully assessed and prescribed only for COPD patients most likely to benefit – those at risk of frequent exacerbations (at least two per year) and capable of recognising early signs of exacerbation. Antibiotics should be initiated in COPD patients presenting with increased dyspnoea, sputum volume and sputum purulence, or with increased sputum purulence plus one of the other symptoms. GOLD recommends considering CRP testing to help identify patients most likely to benefit from antibiotic therapy.[33] Further information is available in the Appropriate use of Rescue Packs article which can be found in the November 2020 Primary Care Respiratory Update.[34,35]

PCRS position

For healthcare professionals

- Healthcare professionals have a duty to maintain antibiotics stewardship through their own prescribing practice, patient education and campaigning for a change to reduce unnecessary antimicrobial prescription.
- Healthcare policy makers should invest in ways to ensure that antibiotics are prescribed for the right person and the right indications. This could be through public education about the risks of AMR, provision and availability of methods for accurate and early diagnosis and improving access to the right treatment and follow-up. This could be for COPD and RTI through diagnostic hubs, availability of point of care testing and improving access to education programmes and healthcare appointments for treatment and follow-up.
- Antimicrobial stewardship should be a measure of the quality of healthcare service provision.
- Commissioners should prioritise measures that improve decision-making regarding antibiotic prescribing including early and accurate diagnosis of common respiratory conditions, availability of a rapid testing tool to support the decision to prescribe and guidelines to support this.
- Support research into TB and MDR-TB.

Sputum and antibiotic prescribing

• Please see Introduction on page 15.

Policy recommendations

- Public awareness and education about AMR and the correct indications of antibiotics as well as the risks associated with the overuse of antibiotics including AMR, microbiome, etc.
- Research and development of guidelines on the best practice including point of care CRP testing and sputum colour chart, particularly in primary care.

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COPD prevention and treatment: The role of triple therapy tobacco dependence, pulmonary rehabilitation and vaccinations

Darush Attar Zadeh, *PCRS Executive Chair*

Chronic obstructive pulmonary disease (COPD) is a preventable and treatable condition that remains a major cause of morbidity and mortality worldwide. The impact on patients, families and healthcare systems is huge, yet many exacerbations, hospitalisations and disease progression can be prevented if the fundamentals of care are delivered consistently, including early and accurate diagnosis.

Inhaled triple therapy (inhaled corticosteroids/long-acting β2 agonists/long-acting muscarinic antagonists; ICS/LABA/LAMA) has a clear place in the management of some patients, particularly those with eosinophilia and frequent or severe exacerbations. But inhaler escalation is not the only answer, and inhaler technique, adherence and device choice reviews are equally important.

The most important triple therapy, one that every COPD patient can and should benefit from, is treating tobacco dependence, referral to pulmonary rehabilitation (PR) (where appropriate) and ensuring vaccinations are up to date. Alongside this, NICE[1] and GOLD[2] also highlight the importance of self-management and comorbidity care. These interventions reduce exacerbations, improve quality of life and ultimately save lives.

Triple Therapy: Getting the Balance Right

Treating Tobacco Dependence: the Cornerstone of COPD Care

Stopping tobacco use is the single most effective intervention for slowing disease progression in COPD. It improves symptoms, reduces exacerbations and extends life expectancy. Yet many patients are only asked about smoking status and not offered evidence-based Very Brief Advice (VBA) and signposted to more intensive support.

PCRS: How to become a Quit Catalyst

ASK – Do you smoke?

ADVICE – Did you know the best way to stop is with a combination of support and treatment which is available on the NHS?

ACT – Signpost to support available if interested

https://www.pcrs-uk.org/resource/current/become-quit-catalyst

Every consultation should include a clear supportive conversation about stopping tobacco, with access to evidence-based treatment. This means behavioural support combined with licensed pharmacotherapy such as combination nicotine replacement therapy, varenicline, cytisinicline (cytisine, belnifrem) or

bupropion, depending on patient preference and suitability. 'Swap to Stop' schemes using vapes as a harm reduction tool should also be considered. Too often, 'willpower' alone is relied on, yet evidence shows quit rates are far higher with structured support and treatment.

We should also recognise that tobacco dependence is a long-term relapsing condition, not just a 'bad habit'. Offering help at every stage, celebrating small steps and never closing the door to future quit attempts are all essential.

Pulmonary Rehabilitation (PR): Improving Quality of Life and Outcomes

PR remains one of the most cost-effective interventions in COPD. It improves exercise tolerance, reduces breathlessness, enhances quality of life and lowers hospital admissions. Despite this, referral rates remain far too low.

Patients often see PR as 'just exercise', but it is much more. Education, peer support and self-management skills are built into every programme, helping patients gain confidence in living with COPD. Referring early,not just after hospital admission, is key. Every clinician should think: "Has my patient been offered PR?"

The way PR is promoted is important

ASK – How has breathlessness impacted on your life?

ADVICE – PR helps you breathe easier, feel better, build confidence, reduce breathlessness and fatigue, lower your risk of flare-ups, and even get back to doing more (including work if relevant) – I strongly recommend it

ACT – Signpost accordingly

- https://www.ipcrg.org/clinicaltopics/PR
- https://www.pcrs-uk.org/resource/current/communicating-benefits-pulmonary-rehabilitation
- https://www.pcrs-uk.org/resource/current/breathing-thinking-functioning-model-support-management-breathlessness

Barriers remain, including access, waiting times and patient motivation/knowledge. Digital and home-based programmes can help increase reach, but awareness among clinicians is still a big hurdle.

Note: If a person isn't eligible for PR or waiting times are long, increasing safe levels of activity/movement should be encouraged. The scale of breathlessness infographic may help during consultations https://www.ipcrg.org/resources/search-resources/scale-of-breathlessness-infographic

Vaccinations: Reducing Exacerbations and Protecting Lung Health

Respiratory infections are a leading trigger for COPD exacerbations. Vaccinations against influenza, pneumococcal disease, COVID-19 and respiratory syncytial virus are vital in protecting this vulnerable group.

Uptake remains variable, but every review provides an opportunity to check vaccination status. Discussing vaccines as part of routine COPD care helps normalise their role as disease-modifying interventions, not just seasonal extras.

Promoting vaccination uptake example

ASK – Great news, you qualify for a flu vaccination

ADVICE – Vaccines can help protect lung health and reduce lung attacks

ACT – Signpost or offer vaccine

Top Tip: If a smoker: did you know you're 5× less likely to get flu and 2× less likely to get pneumonia if you're a non-smoker

Self-Management: Empowering Patients

Supporting patients to take control of their condition is fundamental. Self-management includes correct inhaler technique, personalised action plans and guidance on when and how to use rescue packs if prescribed. Patients who understand their COPD and feel confident responding to worsening symptoms are less likely to present in crisis. These are simple but powerful interventions that reduce admissions and improve patient confidence in day-to-day life.

Comorbidities: Don't Miss the Bigger Picture

COPD rarely exists in isolation. Cardiovascular disease, osteoporosis, anxiety and depression are common and can worsen symptoms and outcomes. A quick screen during reviews – checking cardiovascular risk3, mental wellbeing and bone health – ensures we are treating the whole patient, not just their lungs.

See the PCRS Beyond the Lungs resource for further information on this: https://www.pcrs-uk.org/resource/current/beyond-lungs

Patient and Clinician Aids

Simple tools can help keep the fundamentals of COPD care front of mind during busy consultations.

- **PCRS/AstraZeneca Ltd COPD Risk Slider:** An excellent visual reminder for clinicians, ensuring the basics such as tobacco dependence support, vaccinations and PR are consistently covered.
  https://www.pcrs-uk.org/resource/current/copd-risk-slider
- **IPCRG Visual Wheel**: A patient-centred aid that highlights key discussion points in COPD reviews, making it easier for patients to understand and engage with their care.
  https://www.ipcrg.org/copdwheel
- **CardioPulmonary risk template** can be requested at: population-health@astrazeneca.com

These resources can support conversations, improve adherence to guidelines and ensure no patient misses out on the proven interventions that make the biggest difference.

Bringing It All Together in Primary Care Practice

The fundamentals of COPD care are simple but are too often overlooked. At every review, clinicians should ask about the five fundamentals and practise using the 'Ask, Advise and Act' model so it becomes part of routine care. By prioritising these steps, we can reduce exacerbations, slow disease progression and give patients the best possible quality of life.

Inhaled triple therapy has a role in some patients, but the true 'triple therapy' that all patients should receive is tobacco dependence treatment, pulmonary rehabilitation, and vaccinations.

Key Practice Points

- **Ask, Advise, Act at every review** – tobacco dependence support, vaccination status and PR should be considered as routine fundamentals, not optional extras.
- **Triple therapy is more than inhalers** – inhaled triple therapy has its place, but every COPD patient should be offered the 'true triple therapy': stop smoking support, PR (if eligible) and vaccinations. If the patient is not eligible for PR, increased activity should certainly be encouraged.
- **Keep the basics front of mind** – simple visual tools such as the PCRS COPD Risk Slider and the IPCRG Visual Wheel can help ensure the fundamentals are consistently delivered in everyday practice.

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What else could it be? Alpha-1 antripsin deficiency

Vincent Mak, *Consultant Physician* and **Neil Jackson,** *PCRS patient reference group member*

Introduction

Alpha-1 antitrypsin deficiency (AATD) is a hereditary condition caused by one of many mutations in the SERPINA1 gene, resulting in reduced levels or absence of the alpha-1 antitrypsin (AAT) protein. AAT is produced in the liver and plays a vital role in protecting lung tissue from damage by neutrophil elastase, an enzyme released during inflammation (as a response to smoking tobacco or cannabis).

When AAT is absent or dysfunctional, the balance between the proteases and their inhibitors is disturbed. Over time, this predisposes individuals to premature emphysema and, in some cases, liver disease due to the accumulation of misfolded protein in hepatocytes.

Although AATD is one of the most common inherited metabolic disorders in northern Europe (affecting around 1 in 2000–5000 people), it remains underdiagnosed. Fewer than 10% of affected individuals are thought to have been identified, partly because many individuals may not have symptoms, or they overlap with common conditions such as COPD and asthma.

AATD: key points for primary care professionals

by Vince Mak

Q1: In a patient with an established diagnosis of COPD or emphysema, when should we suspect AATD and how do we test for it?

Suspicion should be raised in the following situations:

- Early onset disease: COPD or emphysema diagnosed before age 45–50 years.
- Minimal smoking history: significant emphysema in a patient with <10 pack-years of smoking.
- Atypical distribution on imaging: basal predominance (in contrast to the usual apical pattern of smoking-related emphysema).
- Family history: relatives with emphysema, liver disease or known AATD.
- Unexplained liver disease: especially in adults with coexistent lung disease.

Testing:

1. Serum AAT level – a simple blood test, but levels can be misleading if taken during an acute illness (as AAT is an acute phase reactant).
2. If levels are low or borderline, order genotyping for the SERPINA1 alleles (used to be phenotyping, which detected the specific mutated protease inhibitor (Pi) protein) eg, MM, ZZ, SS or combination. Many labs now offer reflex testing if the levels are low.
3. Interpret results in context – remember that the 'protective threshold' for AAT is about 0.6 g/L; patients with levels below this are at significantly increased risk.

Most guidelines recommend that all patients with COPD or emphysema should be tested at least once for AATD, regardless of smoking history.

Q2: How important is a smoking history in contributing to emphysema in AATD?

Smoking is critically important.

- In AATD, the deficiency of protective anti-elastase activity means that cigarette smoke accelerates lung tissue destruction far more than in the general population.
- A smoker with ZZ genotype may develop severe emphysema in their 30s or 40s, whereas a never-smoker with the same genotype might remain relatively well until much later in life.
- Even heterozygotes (eg, MZ, MS) have a higher risk of COPD if they smoke.

Key clinical message

Absolute smoking cessation is the single most effective intervention in all forms of AATD. It is vital to emphasise this to patients and provide robust smoking cessation support.

Q3: Are there any other signs, symptoms or investigations we should do in a patient with AATD?

Respiratory:

- Presenting symptoms may mirror COPD: breathlessness, cough and wheeze.
- Asthma-like features are sometimes seen, but airflow limitation is usually less reversible.

Hepatic:

- Because abnormal AAT protein accumulates in hepatocytes, patients are at increased risk of liver disease, including cirrhosis and hepatocellular carcinoma.
- Consider simple liver function tests at baseline, especially if symptoms suggest hepatic involvement.

Other features:

- Some patients develop panniculitis (painful skin nodules, rare but characteristic).
- Family history may reveal relatives with unexplained emphysema or liver disease.

Investigations:

- Spirometry (as for any COPD patient) to detect obstruction, and gas transfer to detect emphysema.
- Chest CT if available: panacinar emphysema, typically lower lobe-predominant, is highly suggestive.
- Liver ultrasound and bloods may be appropriate if liver involvement is suspected.

Q4: How do we treat a patient with AATD and emphysema?

There is no specific treatment for AATD. Core management is standard COPD care, but with additional considerations:

- Smoking cessation (tobacco and cannabis) should be the highest priority.
- Vaccination: influenza and pneumococcal vaccination should be up to date.
- Optimised inhaled therapy: bronchodilators and inhaled corticosteroids according to usual COPD guidelines.
- Pulmonary rehabilitation.
- Oxygen therapy: if hypoxaemia develops, assess according to standard criteria.
- Lung volume reduction procedures and transplantation are other options for treatment, as in other cases of severe COPD.
- Augmentation therapy: intravenous AAT replacement is available in some countries for patients with severe deficiency (usually ZZ, SZ or Null genotypes) and airflow obstruction despite optimal care. The NHS does not commission this since there is limited trial evidence that it is effective in improving meaningful outcomes such as lung function, quality of life or exacerbations. However, patients may be enrolled in clinical trials or specialist programmes.
- Liver disease management involves standard hepatology referral; no role for AAT augmentation.

Q5: When should I refer a patient with AATD?

Referral to secondary or tertiary care is appropriate in several situations:

- Confirmed deficiency (especially ZZ, SZ or Null alleles).
- Young patients with COPD.
- Consideration of lung volume reduction or transplantation.
- Consideration of augmentation therapy (specialist centres only).
- Evidence of liver disease requiring hepatology assessment.
- Family testing and genetic counselling with confirmed homozygous genotypes or severe deficiency.

In practice, most patients with a confirmed AATD genotype benefit from at least one specialist consultation to guide long-term follow-up.

Q6: How should I counsel a patient with AATD?

Counselling is a critical aspect of care. Patients often feel anxious when first told they have a genetic condition.

Points to cover:

- Nature of the condition: "This is a hereditary condition where your body makes less of a protective protein

called alpha-1 antitrypsin. That makes your lungs and liver more vulnerable to damage."

- Absolute smoking avoidance.
- Avoid occupational dust/fumes if possible.
- Moderate alcohol use to protect the liver.
- Family implications: offer testing to first-degree relatives.
- Monitoring: regular lung function tests and liver checks if needed.
- Refer patients with homozygous disease for genetic counselling
- Support resources: direct patients to the Alpha-1 UK Support Group or other charities for peer support.
- Reassure patients that with modern care, many live full and active lives, particularly if they do not smoke.

The chances of an individual passing on carrier status or AATD to their children are shown in the table.

	Partner normal (MM)	Partner carrier (eg, MZ, MS, etc)
Patient with AATD (ZZ, SS, etc)	All children will be carriers No children will have AATD	Each child has a 1 in 2 chance of having either AATD or being a carrier
Partner carrier (eg, MZ, MS, etc)	No child with AATD Each child has a 1 in 2 chance of being a carrier	Each child has a 1 in 4 chance of having AATD Each child has a 1 in 2 chance of being a carrier

Summary for primary care

- Test all COPD and emphysema patients once for AATD — especially if young, non-smokers or with unusual patterns.
- Smoking cessation/avoidance is the most important intervention.
- Consider liver involvement.
- Treat as per COPD guidelines.
- Refer confirmed cases to a respiratory specialist for further guidance.
- Counsel patients and families sensitively and signpost to support.

With these steps, primary care has a vital role in reducing the impact of this genetic condition and supporting patients to maintain long and active lives.

What does AATP mean for the patient?

Let's hear from Neil Jackson (a PCRS patient representative)

Q1: What is thebackground and story around my being diagnosed with AATD?

It's winter 2008/09. I'm 45, a year off cigarettes. My habit was 20–30 a week, often for cannabis, not heavy but probably risky because of how I smoked. After a Christmas cold I developed a cough and wheeze that wouldn't shift. My wife pushed me to visit the GP. He confirmed the wheeze, ordered bloods, chest X-rays and mentioned diabetes, thyroid issues and high liver enzymes despite my barely drinking.

X-rays showed nothing except very large lungs (I'm 6'6" and needed three plates). After being referred for spirometry, I was told not only did I have COPD (something I'd never heard of) but, worse, it was emphysema – something I thought only coal miners got. With a newborn son at home, I felt I was on borrowed time. The stigma of a 'smoker's disease' a year after quitting felt cruel.

The consultant explained that because I was young for emphysema, they'd test for something with a Star Trek name. Weeks later, after a holiday tag with my GP, I was told I had the PiZZ form of alpha-1 antitrypsin deficiency (AATD), the worst of the common types.

It's been a steep learning curve, and now I know only too well what AATD is. My GP admits I know more than he does now, but we continue to learn together.

Despite the shock, I consider myself lucky. My diagnosis was unusually fast – just three months from first consultation to confirmation. Most 'Alphas' wait seven years, often misdiagnosed with asthma.

Q2: What impact has it had on me and my lifestyle?

Exercise was never my strength – I'm tall, thin and unsporty – but by my late thirties it was harder still. Breathlessness, fatigue and malaise crept in. Living at the top of a Georgian townhouse meant 90 steps daily. I measured my fitness by whether I could beat the ceiling light timer to the next switch.

Eventually, I had terrifying dyspnoea attacks: minutes of drowning-in-sand suffocation. They convinced me exercise was unsafe. I stopped pushing myself, avoided going out and narrowed my life to home where I felt safe with my wife and newborn son. My world shrank. I leaned more on my wife while trying to look like a normal 40-something.

Q3: What have I done/need to do to manage it effectively?

The first step was acceptance. Denial didn't suit me. I forced myself to learn about AATD, where it hits, and what I could do. Pulmonary rehabilitation (PR) initially worried me – I expected to be the youngest there – but encouragement from other patients persuaded me. I went and was an instant convert.

I discovered exercise wasn't the risk but the remedy. Dyspnoea doesn't come from exercise; it comes from lack of it. By building muscle tone, I eased strain on my body. The hardest part was ignoring my brain's warnings to rest and doing the opposite. But, over time, movement reduced the breathlessness and restored some hope.

AATD is incurable and progressive, but it needn't mean surrender. With knowledge, rehabilitation and persistence, I found a way to push back and live actively. Maybe not doomed after all.

Q4: What support do Alphas need from primary care?

At diagnosis, patients often can't hear much – "progressive and incurable" is overwhelming. Be ready to follow up and explain things in stages. Point them to the Alpha-1 UK Support Group, but know it may take time before they can absorb information.

If you're not fully confident in the genetics, don't wing it. Too many patients hear confusing things like "you're just a carrier, you'll be fine" (not always true) or myths such as "it only passes through the female line". Use proper pheno- or genotyping, not just serum levels, which can fluctuate. Make sure patients understand results, risks and what they mean for their family. Arrange genetic counselling, but don't force it on day one; family guilt and resistance can complicate matters. Sometimes full testing isn't even needed if parental genotypes make the child's status clear.

Create self-management plans and ensure patients understand them. Remind them it's not an instant death sentence. With support, exercise and strict avoidance of smoking, many can live long, rewarding lives.

Check patients annually with spirometry and regularly with liver scans – even carriers. Vaccinate them (and their families) against pneumonia, flu and COVID. Provide an antibiotic rescue pack for exacerbations, with clear instructions on when and how to use it. Be mindful when prescribing – their livers are vulnerable. Even routine drugs like terbinafine can be risky. Encourage patients to ask about contraindications.

PR should be arranged as early as possible, with repeats if needed. If available, refer to local "Healthwise" schemes or similar exercise programmes. Personally, my subsidised weekly circuits session has been the single biggest boost to my health, resilience and mental outlook.

Refer patients to NHS Alpha-1 clinics but stay involved – don't abandon them. Clinics can be far away and intimidating, but with GP support alongside, patients can manage much better.

Finally, empower them to be vigilant – Alphas are their own canaries in the coal mine. They need to know they can alert you to changes and be heard quickly. With consistent support, Alphas can expect a decent future.

Using exercise to improve quality of life: A COPD athlete's story

Russell Winwood, *the COPD athlete*

Introduction

My name is Russell Winwood; I'm 59 years old and have been living with severe COPD for the past 14 years. Nowadays I live very well with my COPD, but it hasn't always been like this. My journey to this point has had its ups and downs; however, I have learnt that every step has been an opportunity to learn more about my disease.

My breathless journey started when I was diagnosed with asthma at the age of 10. So, it's fair to say I have had a lifetime of experience of not being able to breathe like most people do.

Diagnosis

Over the years my breathlessness had become very severe and would make me exhausted; it was a challenge to go to work most days. By 2011 I had thought this didn't feel like my asthma anymore; this felt much worse.

I decided to make an appointment with my doctor and told him what was happening. He said it was just my asthma getting worse. I told him I felt something else was going on and insisted he refer me to a specialist. Reluctantly he agreed and referred me to a respiratory physician. After my initial spirometry at the respiratory doctor's clinic, I was sent for spirometry at the respiratory department of our local hospital. Two weeks after the spirometry test, I returned to my respiratory doctor where he told me I had very severe COPD. I was then sent to the transplant unit of our local hospital to be assessed for a double lung transplant.

I wasn't sick enough at this time to be put on a transplant list but was told if I declined any further to go back to them immediately. What to do now? The reality was I had had COPD for many years but just didn't realise it. Lung function doesn't drop to 24% (FEV1% predicted) overnight. I knew nothing about this disease and Dr Google had told me when researching severe COPD that I would not have long to live. My disease was end stage.

Living well with COPD

This is where my COPD journey really started, I was 45 years old with school-aged children, and I was not ready to give up on life. With the support of my wife, Leanne, I dragged myself out of being depressed and decided to be proactive. At that time there wasn't a pulmonary rehabilitation (PR) programme near me, so I had to work things out for myself.

My wife Leanne and I realised there were some tools I could use to hold off the progression of my COPD. Take my medication as prescribed, learn about my disease, exercise and healthy eating. Every day I would go for a slow walk and a short distance. Each week I would increase the speed and distance.

Gradually I built my exercise tolerance and my fitness. Over time I was able to return to cycling and, eventually, swimming. I was very slow, but it gave me a sense of purpose and hope.

I developed a mantra – 'Never Let Your Disease Define You'. This mantra is not something I think about every now and then; this is how I live my life every single day. In 2016 I had an article published in the *European Medical Journal* entitled '*The Four Pillars of Living Well with COPD*'. Those pillars are Knowledge, Medication, Exercise and Nutrition. For a COPD patient, living by these pillars will give you the best chance of living well with COPD.

Since my diagnosis back in 2011 this mind set I live by has allowed me to complete three Ironman events and over 15 marathons all over the world. These days I think more people know me as 'COPD Athlete' – the name of my website – rather than Russell Winwood. Over the years I have dedicated many hours to COPD advocacy and fundraising. COPD has a lot of stigma associated with it and we need more advocates to help change the way people think about this disease. The most important intervention aside from medications is PR and exercise, yet these are such underutilised resources. Since my initial diagnosis, my lung function has increased to 30–35% (FEV1% predicted) and I am certain exercise has been a big factor in this.

When I look back at the previous 14 years there is no denying the significant role exercise has played in maintaining my great quality of life. My goal after being diagnosed with COPD was to see my kids grow up and get married, to have grandchildren that I can play with, continue to travel and to run a marathon when I'm 70. So far, I'm achieving my goals. I'll have to wait another 10 years to see if I can run a marathon at 70, but that's my goal and I'm determined to get there.

COPD Baton Pass

In 2022 Dr Ruth Barker and I started a conversation about how we can raise more awareness of COPD and the importance of being active to help manage the disease. After six months of talks we created an event called the **COPD Big Baton Pass**. The event was an opportunity to share knowledge from healthcare professionals and patients about the importance of pulmonary rehabilitation and exercise maintenance.

2025 marks the third year of the event which is broadcast live around the world over a 24-hour period via the Vimeo platform. Last year the COPD Baton Pass event was viewed in over 40 countries, with over 4,000 views of the content produced by healthcare professionals and patients. This year we will see a greater amount of content than the previous two years as the event grows in popularity.

The event is open to anyone involved or living with COPD.

For more information go to our website www.copdbatonpass.org

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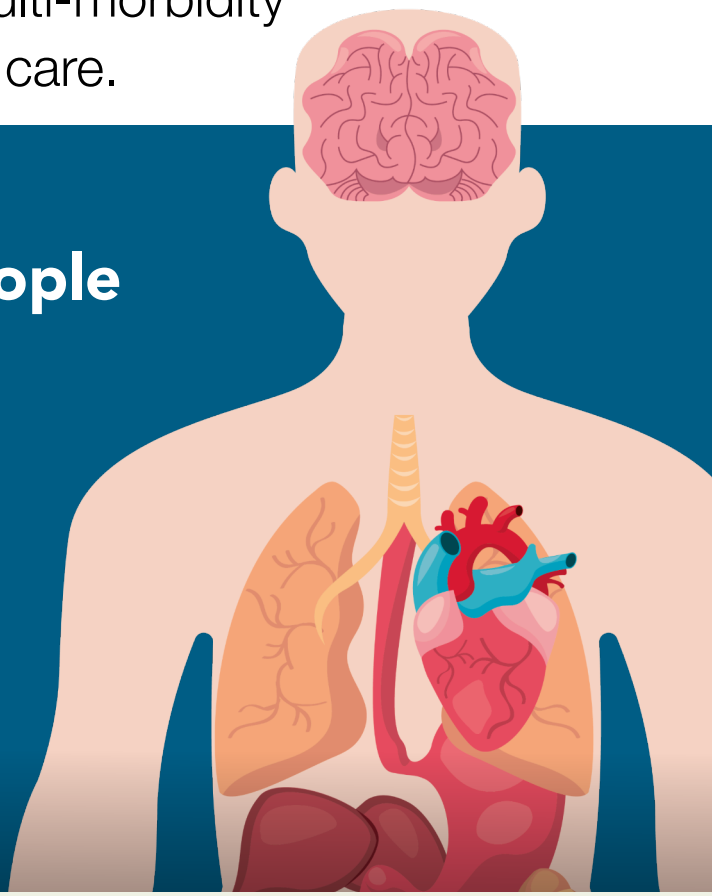

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Point of Care Testing (POCT) of C-reactive protein (CRP) (Update)

Primary Care Respiratory Society (PCRS) position statement

Point-of-care testing of C-reactive protein (CRP) for the acute assessment of worsening symptoms in people known to have COPD can safely reduce the use of antibiotics and could help improve the diagnostic approach towards someone presenting in such a crisis. New high-quality evidence has emerged since the last NICE COPD update and we encourage re-opening and review of the current guideline to enable clinicians and system leaders to understand whether and how to implement this promising diagnostic aid.

PCRS advocates that:

- **Patients with acutely worsening symptoms and known diagnosis of COPD should receive antibiotics only when there is confirmed evidence of a COPD exacerbation and/or a bacterial infection. (They may also require steroids in line with global guidance).**
- **Sputum purulence is as accurate at predicting the presence of bacterial pathogens as point-of-care C-reactive protein (CRP) protein in exacerbations of COPD.**
- **Using of point-of-care-testing such as CRP testing would be a valuable addition to support treatment decisions if resources were available.**
- **When evaluating a patient with COPD experiencing a symptomatic exacerbation such as cough and worsening breathlessness, all potential triggers should be considered including tobacco exposure, air quality, psychosocial factors, viral infection and bacterial infection to avoid unnecessary prescribing of antibiotics.**

Background

Exacerbations of COPD account for 115,000 hospitalisations in the UK each year.[1] COPD exacerbations can be caused by environmental triggers and bacterial or viral airways infection.[2] In an era of antibiotic guardianship, it is essential to ensure that patients only receive antibiotics when clinically warranted. Determining whether an exacerbation is caused by a bacterial infection, viral infection or another trigger can be challenging in a primary care setting. Consequently, the default approach often involves prescribing antibiotics to treat a presumed bacterial infection, as recommended by National Institute for Health and Care Excellence (NICE) guidance.[3]

Currently, an estimated 80% of patients presenting in primary care with moderate exacerbations of COPD are treated with antibiotics. This means that 20% of patients who would be recommended to have steroids and/or antibiotics for a moderate exacerbation are potentially being undertreated.[4] However, not all patients prescribed an antibiotic for an acute COPD exacerbation will benefit from such treatment.[5-7] Unnecessary antibiotic prescribing can contribute to increases in the prevalence of drug-resistant bacteria and result in a delay in patients receiving potentially more effective interventions when their exacerbation is not driven by an underlying bacterial infection. Identifying patients most likely to benefit from antibiotic therapy and, conversely, those unlikely to benefit from antibiotic therapy has the potential to reduce unnecessary antibiotic use, preserve the patient's airway microbiome, reduce the risk for colonisation by drug- resistant bacteria and for adverse events such as colitis caused by Clostridioides difficile.

Key issues

Current clinical guidelines for antibiotic prescribing in COPD

Antibiotic prescribing for patients presenting with a COPD exacerbation is still essentially guided by the criteria set out by Anthonisen and colleagues in 1987 and updated by Stockley and colleagues in 2000, with antibiotics recommended for those with

increased breathlessness, increased sputum volume and increased sputum purulence when bacterial infection is considered to be the most likely trigger.[8-10]

The current NICE guidelines were issued in December 2018[11] and recommend that antibiotic therapy should be considered for patients presenting with an acute exacerbation of COPD only after taking into account:

- the severity of symptoms, particularly sputum colour changes and increases in volume or thickness beyond the person's normal day-to-day variation;
- whether they may need to go into hospital for treatment; previous exacerbation and hospital admission history and the risk of developing complications;
- previous sputum culture and susceptibility results; and
- the risk of antimicrobial resistance and repeated courses of antibiotics.

Point-of-care CRP testing is not included in the algorithm for COPD exacerbation management, and it is no longer included in the clinical guidance recommendation for the diagnosis and management of community-acquired pneumonia.[12]

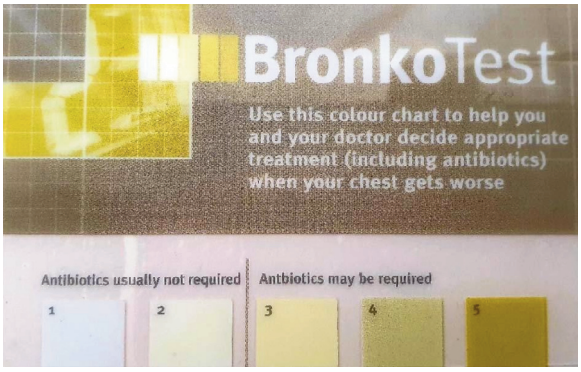
Point-of-care testing vs sputum purulence as a guide to antibiotic prescribing for COPD exacerbation

A single drop of blood from a finger prick test is required to perform the test using an assay kit and analyser instrument (quantitative measurement) or disposable single-use test strips (semi-quantitative measurement) with results available within a few minutes.

Patients with raised levels of CRP in their blood are those most likely to benefit from antibiotics to treat an underlying bacterial infection.[5] The PACE study was a multicentre trial conducted at 86 primary care clinics in England and Wales.[4] The study included 653 patients with an acute exacerbation of COPD who were randomised to receive usual care guided by point-of-care CRP testing via a rapid finger prick test or usual care only. For CRP-guided care, clinicians were advised that antibiotics were unlikely to be beneficial when the CRP level was <20 mg/L, likely to be beneficial when the CRP level was >40 mg/L and possibly beneficial when the CRP level fell between 20 and 40 mg/L and purulent sputum was present. Prescribing decisions were to be based on a comprehensive assessment of likely risks and benefits. Antibiotic prescribing was 20% lower among those patients who received usual care guided by point-of-care CRP testing compared with those who received usual care only (57% vs 77%, respectively). This reduction in antibiotic use did not have a negative effect on patients' recovery over the first two weeks after their consultation at their GP surgery, or on their well-being or use of health care services over the following 6 months. The results of the study show that CRP-guided prescribing of antibiotics for COPD exacerbations presenting in primary care can reduce the proportion of patients prescribed an antibiotic with no evidence of harm in terms of COPD-related health status or increased visits to GPs or a greater need for antibiotics over the following 6 months.

However, a subsequent sub-analysis of the PACE study examined the results of 386 patients from whom sputum samples were taken for analysis to compare sputum purulence with point-of-care CRP testing to determine bacterial infection.[13] 20.5% had bacterial pathogens, 31.9% had viral/atypical pathogens and 23.6% had mixed pathogens identified. Sputum purulence was assessed using the BronkoTest Sputum Colour Chart (graded 1–5, see Figure 1).

Figure 1. BronkoTest® card with sputum colour chart



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The study found that increasing sputum purulence was associated with increased odds of finding bacterial and mixed pathogens in the sputum with an area under the ROC curve (AUROC) value of 0.739 which implies a good predictive value. The addition of a raised CRP level did not significantly increase the AUROC value (0.77). The conclusion from this sub-analysis was that an elevated CRP did not add to the predictive value of sputum purulence for the presence of bacterial or mixed pathogens. This supports the current clinical guidance.

In the current situation where there is a recognised workforce crisis and resources to see people in primary care stretched by underfunding, the implications of longer consultations to allow for time to undertake a point-of-care test need to be carefully considered with its overall practical benefits.[14,15]

PCRS position

- Patients presenting with acutely worsening symptoms and known to have COPD should receive antibiotics only when a COPD exacerbation has been determined as the cause of the change and then when bacterial infection is considered to be the most likely trigger.
- Sputum purulence is as accurate at predicting the presence of bacterial pathogens as point-of-care CRP testing in exacerbations of COPD. Point-of-care CRP testing is not widely available in primary care at present and would add to consultation length. Using sputum purulence as recommended by current clinical guidelines remains the most pragmatic approach to determine the presence of bacterial infection that may benefit from antibiotics.
- Use of point-of-care testing such as CRP testing would be a valuable addition to support treatment decisions if resources are available.
- When evaluating a patient with COPD experiencing a symptomatic exacerbation such as cough and worsening breathlessness, all potential triggers should be considered including tobacco exposure, air quality, psychosocial factors, viral infection and bacterial infection. Adherence to the guidance may help reduce unnecessary prescribing of antibiotics for people with COPD by enabling a more considered diagnostic approach to those with COPD in crisis.

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Approved by PCRS policy lead: 14 February 2025

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Using COPD to illustrate best Neighbourhood Health and outcomes

Tricia Bryant, *PCRS Executive Director*

Case studies provided by:

- **Deepak Subramanian,** *Respiratory Specialist Doctor, Royal Derby Hospital*
- **Alicia Piwko,** *Respiratory Pharmacist, South East London*
- **Sonia Silk,** *Senior Respiratory Nurse Specialist Lead, Gloucestershire*

Since the publication of the Darzi Report[1] and the new NHS 10-year Health Plan: Fit for the Future,[2] there has been an increased focus on the delivery of Neighbourhood Health to reinforce integrated care and facilitate joined-up working between primary, secondary, community and social care. In addition, Neighbourhood Health aims to create healthier communities focusing on the Government's three core priorities:[2]

- Hospital to community
- Treatment to prevention
- Analogue to digital

Initially, the Government is focusing on NHS and social care working together to prevent prolonged hospitalisation with wider aims over time (see Figure 1).

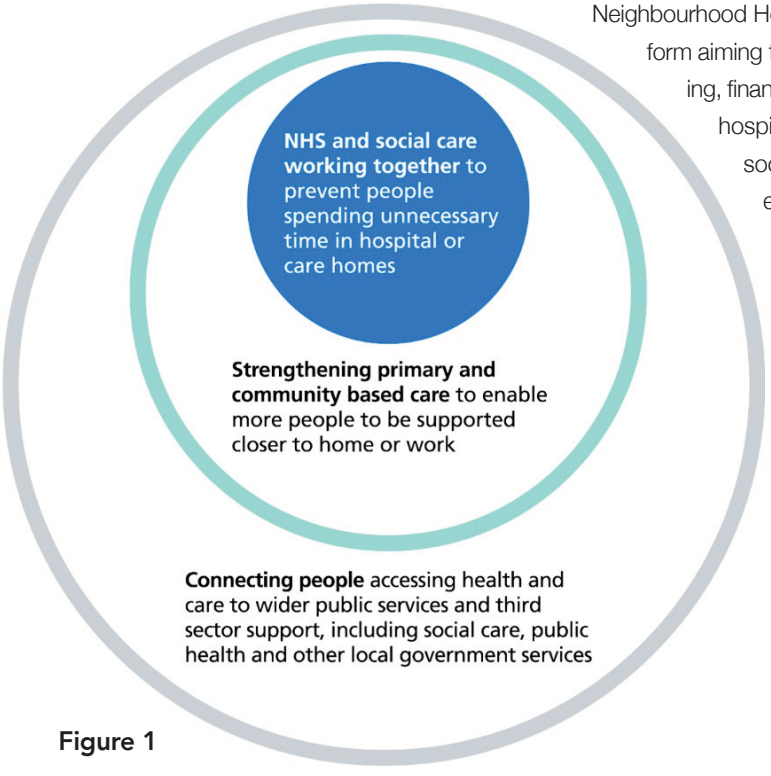


Figure 1

Neighbourhood Health will play a significant role in the wider sector reform aiming to reduce unnecessary GP visits, social issues (housing, financial hardship, social isolation, etc) and reduce/prevent hospitalisations through improved communications with social care, social prescribing and reducing health inequalities whilst improving access to general practice and emergency care.

In anticipation of this new healthcare landscape, PCRS is working to place respiratory care, specifically chronic obstructive pulmonary disease (COPD), at the forefront of Neighbourhood Health delivery and use it:

- as a blueprint for improving the care and lives of people with COPD; and
- to support the Government's objective to reduce hospitalisations, prevent admissions and improve quality of life.

In August 2025, PCRS made an initial national call for examples of innovative practice in COPD that would fit within a Neighbourhood Health framework. Following review and scoring, these

examples will now form the basis for an ongoing repository of innovative and best practice examples which can be used by primary care to set up, deliver and scale up effective Neighbourhood Health models in their local areas.

The online repository of innovative practice will provide a platform for healthcare professionals to showcase their work and, potentially, inspire others and see it used in other areas to improve respiratory care. Alongside information about the work, we will invite participants to share their learning, highlight what they would do differently if they were to repeat the project and suggest any changes they would recommend. The examples will be categorised to allow for easy searching and identification of relevant programmes for those who wish to use the repository as a template for their own local projects.

In this article we showcase the **three top scoring case studies** submitted for this initial call. Please see the advert at the end of this article for more information about the PCRS Neighbourhood Health project and submitting your own example for the ongoing repository.

Example 1: ImpACT+ (Improving adult respiratory care together), South Derbyshire

Submitted by: Deepak Subramanian

Project overview

The ImpACT+ service started in 2018 to proactively manage people at risk of developing or who have a diagnosis of respiratory disease via the provision of a neighbourhood place-based holistic approach to care. The service supports patients with respiratory diseases including COPD.

The service aims are to:

- Support the early diagnosis of respiratory disease, in particular COPD and asthma.
- Support the ongoing care of people with a confirmed diagnosis of respiratory disease via a multi-disciplinary team (MDT) approach to holistic care planning, education, appropriate prescribing and coordination of care inclusive of pulmonary rehabilitation and home oxygen assessments.
- Support the early identification and ongoing needs of people with advanced stage respiratory disease.
- Reduce admission avoidance, with respiratory patients managed in the community/their own homes, ie, patients with exacerbating symptoms.

The components of the service include:

- Neighbourhood MDTs: a lead respiratory nurse is allocated to each place/neighbourhood and works with practices to identify patients who would benefit from a holistic respiratory review and input for one or more of our services. MDTs in each neighbourhood are undertaken with the input of a respiratory consultant with access to primary care records
- Complex MDT
- Lung line access to a specialist nurse
- Pulmonary rehabilitation: a rolling programme with multiple venues across the region
- Home oxygen, including ability to check blood gas analysis in the patient's home
- Fatigue and breathlessness groups: to provide holistic support and education to patients and carers
- Education sessions
- Lungs 4 life peer support group
- Smoking cessation referrals

Who was involved in this project?

University Hospitals Derby and Burton, NHS Derby and Derbyshire Integrated Care Board (ICB)/Joined Up Care Derbyshire

Project outcomes/impact

In September 2020 the ImpACT+ service won a HSJ Value Award for the Respiratory Care Initiative of the Year.

In the first 5 years of the service, outcomes have included:

- Neighbourhood MDTs: over 2600 cases have been discussed with a focus on confirmation of diagnosis and managing their long-term condition

- Complex MDT: over 3000 patients have been discussed including patients after admission for an exacerbation of COPD
- Lung line: 5723 calls into the service, 90% of which were from patients and carers, 9.3% were from Primary Care and 0.7% from the Ambulance services. 81% received advice and 12% were reviewed face to face, 5% were advised to contact their GP and 2% of patients were advised to attend the emergency department
- Pulmonary rehabilitation: 5611 patients referred with a completion rate of 69%
- 85% of patients demonstrated improvements in walking distance/exercise capacity at discharge from the programme
- Home oxygen: 2471 patients, with 100% of these patients having an annual review
- Fatigue and breathlessness groups: 445 patients accessed the group
- Education sessions: 21 education sessions including education on lung volume reduction surgery (LVRS), oxygen and palliative breathlessness management
- Lungs 4 life: 329 patients have accessed this group
- Smoking cessation referrals: more than 2000 referrals into these services
- Patient satisfaction survey: 99.6% of people reported a positive experience of the service
- Admission data show an overall decrease (22%) in respiratory-related non-elective admissions. COPD admissions dropped by 24% and asthma admissions by 35% over the 5-year period of analysis. The lung line is assumed to have reduced urgent care contacts. Collectively, calculations by the ICB have shown significant cost avoidance following the implementation of this integrated respiratory service.

If you were to run the project again, what would you do differently?

- Have a healthcare professional working in primary care as part of our leadership team
- Include service users in our regular team meetings
- Have a clinical psychologist as part of the team

Advice you would have for others undertaking the same type of project

- Work collaboratively with ICB commissioners to design the service
- Develop a patient-centred vision with input from all relevant stakeholders
- There are significant benefits to bringing multiple services, which may be working in silo, into a single integrated team
- Engage both primary and secondary care to develop a service which is useful and of mutual benefit

Example 2: Community Lung Health Day, Lambeth and Southwark

Submitted by: Alicia Piwko

Project overview

On 11 March 2025 the Community Lung Health Day, Lambeth & Southwark was carried out to support patients with respiratory disease with improving their lung health and their Vital 5 (Alcohol, Healthy Weight, Hypertension, Mental Health and Tobacco Dependency) through addressing social determinants of health.

Patients were identified via the local pulmonary rehabilitation waiting list. Patients attended the event at different start times over several hours and upon arrival were given physical Community Lung Health Day booklets where they could identify the stands they wanted to visit and at the stands any relevant information could be recorded by the patient or the professional. Patients were free to interact with each other and to feedback about their experience attending. Refreshments and rest areas were available for patients (and staff).

Other aims of the event were to increase successful enrolment into pulmonary rehabilitation and to improve integration of the Integrated Respiratory Team (IRT) and Voluntary, Community and Social Enterprise organisations in Lambeth and Southwark.

On the day the success of the event was assessed via the following methods:

- Patients were asked how they found the day and feedback was also sought from attending organisations

- The numbers of interactions at each organisation stand were collated.

The project website (with video of the event) is available at: https://www.selondonics.org/supporting-patients-to-manage-their-lung-conditions/

Who was involved in this project?

NHS Southeast London & King's Health Partners led the project.

Organisations supporting/in attendance included the local pulmonary rehabilitation team, respiratory nurses and pharmacists, smoking cessation services, dietitian services, Citizen Advice Bureau, local councils, library services, Southwark and Lambeth IAPT, local gyms, charities (eg, Green Doctors, Mind, Asthma & Lung UK).

Project outcomes/impact

- 55 patients booked into sessions
- 27 (49%) patients turned up
- 26 patients completed a feedback survey
- Patients' descriptions of the session included: helpful, people in person, informative, knowledgeable, health and inhaler help
- 88% of patients selected they would be 'very likely' to attend a similar event, with a further 8% selecting 'somewhat likely'
- 100% of organisations present would attend a similar event

Benefits

- Networking with the organisations present
- Staff much more knowledgeable about what is available and how/who to contact
- Active Lambeth planned to consider setting up an exercise on referral pathway for respiratory patients (this is not currently provided)
- Green Doctors agreed to do a teaching session for the team
- Library and digital literacy: improved awareness of what is provided
- Citizens Advice Bureau noted to be especially important in current times

If you were to run the project again, what would you do differently?

Lessons learned included:

- The need to start recruitment earlier
- More targeted recruitment of those patients not engaging with pulmonary rehabilitation
- Awareness of did not attend (DNA) rate: invite more patients with knowledge, ~50% will not attend
- Possibly later start or longer session
- Increase number/type of organisations in attendance

Advice you would have for others undertaking the same type of project

Successful recruitment takes time and considering ways you might engage hard-to-reach patient cohorts is key (eg, social groups, places of worship). A 50% DNA is standard and thus a 50% attendance is a success! The numbers invited should reflect an expected 50% DNA rate. Ensure you have a plan regarding appropriate safety netting/escalation of patients who may attend unwell or those whose blood pressure checks identify stage 2 or above hypertension. This is particularly important if your venue is outside of a healthcare setting.

Example 3: Population Health Management Approach to Respiratory Care, Gloucester Inner City PCN

Submitted by: Sonia Silk

Project overview

The aim of the project was to co-produce a data-led approach to respiratory care that proactively manages patient care and leverages all available resources (positively impacting patient health, reducing utilisation costs and patient admissions). To apply context, we have some of the highest rates of social deprivation and smoking in the country. More than 56 different languages are spoken.

Following a service evaluation in our primary care network (PCN), we reached out to 27 stakeholders, collaborating their knowledge and opinions to leverage collective expertise and resources.

We then designed a Respiratory Whiteboard (WB), a risk stratification tool that includes clinical markers in asthma and COPD (based on current respiratory guidelines) to define and allocate

patients into Red, Amber and Green groups (RAG system).

- The Red patient group was used to identify patients appropriate for the PCN respiratory team
- The WB was used to identify patients who would benefit from an appointment with the specialist respiratory physio therapist for breathlessness management (in a collaborative project with Sue Ryder)
- The WB facilitated the identification of patients for our partnership with Gloucester City Homes Tenancy and the Warmth on Prescription programme
- The data from the WB helped us develop and create an innovative approach to address tobacco dependency and inequalities (see more information on social deprivation below). We hired and trained an in-house Stop Smoking Coach who speaks Polish/Slovak/Czech/English
- We matched the level of care of our respiratory nurses (by using the PCRS Fit to Care tool) to the RAG system to ensure that patients matched the right level of clinician

Social deprivation

Significantly higher than average levels of the following were identified:

- smoking,
- mental health,
- children on MARAC (Multi-Agency Risk Assessment Conference) or safeguarding lists,
- multi-morbidity/chronic diseases (respiratory + obesity/diabetes highest prevalence),
- higher than national average prevalence of respiratory disease (asthma and COPD).

Solutions: we did joint MDTs with respiratory consultant/practice nurses/mental health advanced clinical practitioners. Our PCN then used the risk stratification approach for diabetes and cardiovascular disease as well as developing a bespoke weight management service. We hope to do joint MDTs for patients on both the Red respiratory and diabetes lists this year.

Who was involved in this project?

- PCN respiratory team
- Polish/Slovak/Czech/English-speaking stop smoking coach
- Respiratory specialist nurse lead
- Respiratory specialist nurse
- Care coordinator
- Secondary care respiratory consultants
- Practice staff
- Sue Ryder physiotherapist
- Integrated Care Boards (ICB) (provided project management support in the second phase)
- Local stop smoking services
- Other PCNs
- Business Intelligence
- Local community centre
- Primary Care Clinical Audit Group (PCCAG)
- Gloucester City Homes

Project outcomes/impact

Our evaluation is not yet complete, but we are seeing incredibly positive changes across service usage in primary and secondary care. In addition, respiratory prescribing has improved with a reduction in both antibiotic and steroid prescribing and a consistent decline in salbutamol inhaler prescribing (we were above the national average and are now below and decreasing steadily in all practices), and patients are reporting better symptom control. The following are some of our measured outcomes that have been achieved:

- Improvement in the Asthma Control Test (ACT) score of 20–25 in 63% of all asthma patients against a baseline of 38%.
- Reduction in the percentage of Red risk asthma patients with ≥6 short-acting β2 agonists (SABAs) from baseline 92% to 59% and a reduction in the number of Red risk asthma patients with ≥2 oral corticosteroids (OCS) in the last 12 months from 154 to 81 patients.
- Reduction in the percentage of Red risk COPD patients with ≥2 OCS in the last 12 months to 36% against a baseline of 50% and a reduction in the percentage of Red risk COPD patients with ≥2 courses of antibiotics prescribed in the last 12 months from 211 patients to 141.
- Business Intelligence helped us to capture our patient cohort service usage. Data were captured 6 and 12 months prior to the first intervention from the PCN respiratory service. There was then a 3-month lag applied (to allow for an immediate uplift in activity post-intervention) and subsequent data were captured 6 or 12 months after this:
    - All GP contact: a statistically significant reduction of 21.6% from 6 months pre-intervention to 6 months post-intervention
    - Secondary care Respiratory advice and guidance (A&G) reduced by 46.8% in the 12 months after the PCN Respiratory Service was started
- The health benefits of stopping smoking for the patient must not be underestimated. There have been 150 quit attempts and 48 successful quits through our in-house PCN service

with one part-time coach delivered in English, Polish, Slovak and Czech languages. We also worked with a local community centre and local partnerships to deliver an interactive Wellbeing Cafe for Stoptober, but focusing on 'Breathing Well'.

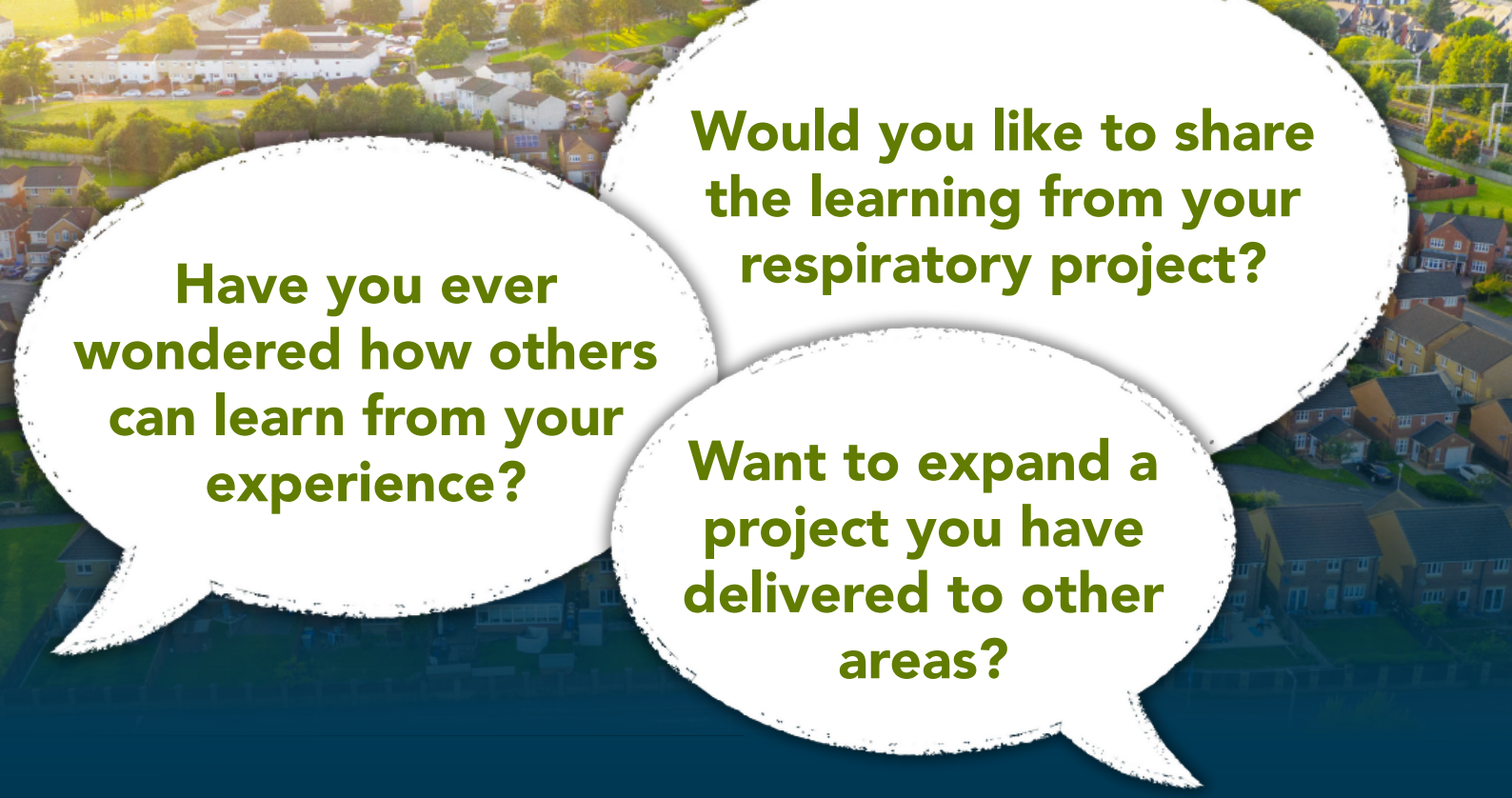
If you were to run the project again, what would you do differently?

Data quality is dependent on accurate data being entered and coded correctly. We were also limited by the IT systems in use. Establish a clear understanding about what data can be collected from the project onset. As we continued through the project it became clear that the targets associated with our funding were based on metrics that were a little problematic. We were being measured on the percentage of Red risk patients who met various clinical criteria, but as the project went on the number of Red risk patients reduced so the percentages of Red risk patients did not drop as markedly as the raw data was showing.

Advice you would have for others undertaking the same type of project

I would recommend reaching out to colleagues and locality partners who share the same interests and goals and to use the skills and knowledge from across all healthcare disciplines. Collaborating on goal setting with the knowledge of data and evaluation of similar projects is useful – for example, considering whether goals are tied to metrics that are percentages or raw data.

References
1. GOV.UK. Independent investigation of the NHS in England. Lord Darzi's report on the state of the National Health Service in England. September 2024. https://www.gov.uk/government/publications/independent-investigation-of-the-nhs-in-england (Accessed October 2025).
2. GOV.UK. 10 Year Health Plan for England: Fit for the Future. July 2025. https://www.gov.uk/government/publications/10-year-health-plan-for-england-fit-for-the-future (Accessed October 2025).



Would you like to share the learning from your respiratory project?

Have you ever wondered how others can learn from your experience?

Want to expand a project you have delivered to other areas?

Help respiratory health management to be the vanguard of good neighbourhood care

PCRS is building the biggest repository of examples of best practice to support neighbourhood health. This is part of our programme to facilitate the sharing of experience and knowledge in respiratory primary, community and integrated care.

Contribute to this programme and showcase your work by sharing your project's details, learning, outcomes and your experience with us via a short write up and video.

Share good practice

Scan the QR code to complete our simple online form and upload a short video to be featured in the best practice repository.

We're grateful to our corporate supporters for their financial support which supports the core activities of the Charity and allows PCRS to make its services either freely available or at greatly reduced rates to its members. View all supporters: qrco.de/PCRSsupporters

PCRS

PCRS Conference 2025
Innovation, collaboration and inspiration in respiratory care

The PCRS Conference 2025 brought together clinicians, researchers, patients and partners in Telford for an inspiring programme of learning and collaboration. With more than 35 sessions covering clinical practice, service development, professional growth, hands-on workshops and the latest research, the event offered something for everyone.

There was a buzz in the air as PCRS Executive Chair Darush Attar-Zadeh opened the conference with a warm welcome and a candid reflection on stepping into the "big respiratory shoes" left by Katherine Hickman. Katherine's compassionate and enthusiastic leadership set a high bar, and Darush is already building on that legacy with energy and vision.

Setting the tone for the event, Richard Russell delivered a thought-provoking plenary, asking, ***"Is the future bright for respiratory primary care?"*** He explored digital innovation, personalised treatment, and prevention within the NHS 10-Year Plan, emphasising the pivotal role of primary care in respiratory health.

Throughout the programme, sessions addressed the key challenges and opportunities facing respiratory care. Topics included bronchiectasis management, learning from patients and carers, and the future of diagnostic and testing services. Christine Mwasuku's insightful session on women's lung health highlighted how hormonal changes affect respiratory conditions, while other talks offered valuable patient perspectives and cross-disciplinary learning.

Holistic and integrated care was a central theme. Experts examined co-morbidities in COPD, the importance of social care, and the contributions of the third sector. Ian Sinha issued a compelling call to end preventable adolescent asthma deaths, while Steve Holmes delivered his popular annual update covering asthma, COPD exacerbations, vaping, obesity and pneumonia. The closing panel reviewed the new NICE/BTS/SIGN asthma guidelines, identifying successes and areas for improvement.

The atmosphere throughout #PCRS2025 was one of energy, collaboration and optimism. Delegates connected with peers, shared experiences, and discovered new ways to enhance patient care.

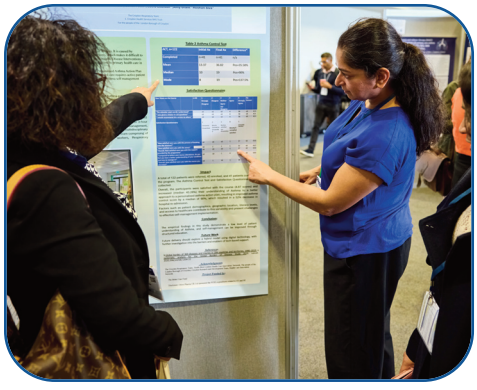
Poster walkarounds showcased a record number of abstract submissions, providing a lively platform for researchers to present their latest work. Innovation shone through in this year's abstract awards. Congratulations to Ruth De Vos and team, who took home the Winning Conference Abstract Award for 'Development of a novel measure of inhaler technique: The Portsmouth Inhaler Technique (PIT) Score'. We encourage all members of the respiratory community to get involved – **abstract submissions for PCRS 2026 will open soon at pcrs-uk.org/conference/abstracts.** You can also browse this year's submissions here: https://www.pcrs-uk.org/conference/2025/abstracts.

Darush closed the conference by reflecting on the strength and unity of the respiratory community and the goal of expanding representation across all four UK nations.

Thank you to everyone who made PCRS 2025 such a success — our delegates, faculty, sponsors, exhibitors and organisers. We look forward to welcoming you back next year on the 24th-26th September.

A great few days that as always has reenergised me.

Excellent as always! As well as great content and practical tips for translating learning to real world practice, lots of opportunity for networking. Love seeing the PCRS family - I always come away inspired and rejuvenated!

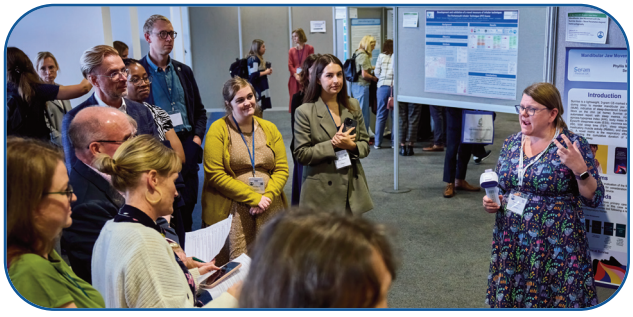


I have never been to a conference with such a friendly atmosphere before. It was really enjoyable. Speakers and attendees were very approachable and everyone was so keen to share ideas and support each other.

The PCRS conference provides a platform for practical exchange of best practice across all disciplines involved in respiratory care, as well as highlighting areas which may benefit from further scientific exploration or collaboration.

Every year I come away from this conference brimming with ideas, new knowledge and energy. ...It is always by far the best event I attend in the year.

I loved the conference - as always!! Such a great event - thank you for all your hard work. I love meeting others and being in the same environment of people who share the same interest and passion in respiratory care.



This is by far and away the best conference I go to and I always find the content relevant. I leave feeling inspired and motivated to make a difference for my patients. Thanks to everyone involved in making this such a successful event.

PCRS is always great, always enjoyable, networking is superb.

PCRS News round-up

Tribute to Dr Katherine Hickman, outgoing Chair of the PCRS Executive

Dr Katherine Hickman has served with great distinction as Chair of the PCRS Executive Committee over the last three years, handing over to the new Chair, Darush Attar-Zadeh, just before the recent PCRS Conference in September.

As one of her very first tasks as Chair, Katherine gave the opening address at the 2022 PCRS Conference. Her welcome to us all was humorous, passionate, enthusiastic, humble, and absolutely inspiring, and it was quite clear that she was going to be an outstanding Executive Chair. So, it has proved to be. Since then, Katherine has additionally brought clarity, compassion, and real strategic vision to the role. Under her stewardship, the Executive Committee has deepened its commitment to *optimal respiratory health for all*, with a particular focus on addressing health inequalities. In her final year as Chair, Katherine oversaw the development of the PCRS Shared Purpose document (https://www.pcrs-uk.org/our-shared-purpose) and led our 2024 strategy day.

A GP Partner in Bradford, and Respiratory Lead for West Yorkshire ICB, Katherine also serves as the Primary Care Clinical Lead for the National Respiratory Audit Programme (NRAP), roles that have enriched her leadership at PCRS as well as overseeing the launch of our resources and tools to support the implementation of the NICE/BTS/SIGN asthma guideline. As well as supporting our digital innovation programmes, Katherine has chaired numerous PCRS webinars, including the "PCRS in Conversation" series, where she has facilitated dialogue on pressing issues such as disparities in respiratory care and the implementation of new asthma guidelines.

Katherine's leadership style is marked by collaboration, inclusivity, and a deep understanding of primary care challenges. She has been instrumental in aligning PCRS activities with national priorities, ensuring that the society remains a trusted voice in respiratory care.

Committee members have praised Katherine's ability to foster a supportive and forward-thinking environment:

"Katherine has been a great leader during her tenure as chair - inspiring, grounded, enthusiastic and passionate - she has moved us forwards during difficult times for the NHS. An amazing achievement."

Steve Holmes, PCRS Policy Lead

"Katherine leads with authenticity and heart! She reminds us that it's okay to feel like an imposter whilst driving real change with passion, laughter, and inclusivity. Katherine is at the heart of PCRS's growth and the family spirit that defines it."

Helena Cummings, PCRS Service Development Lead

"For me Katherine Hickman epitomises everything that the PCRS & indeed NHS should be about - Katherine is a consummate professional, knowledgeable, gentle, empathetic and very personable, she is highly engaging and a true ambassador for her patients and colleagues alike. Katherine possesses a unique set of leadership qualities and skills that enables her to engage effectively with everyone regardless of their knowledge, experience or competencies and that is something well worth harnessing - I consider it a huge privilege to call Katherine a PCRS colleague not to mention a friend."

Frances Barrett, Conference Organising Committee Chair

"I did a leadership course recently and we were asked to bring to mind an inspiring leader and I actually chose Katherine. She is so genuinely warm and approachable, but also demonstrating such great wisdom and strength, it inspires confidence and connection that brings people together and gets things done. She makes everyone feel seen and valued, and shares her fears and uncertainties, and I think it's this humility despite her brilliance which really makes her a stand-out leader who I really admire."

Helen Ashdown, Research Lead

"Katherine's calm, down-to-earth nature and genuine warmth have made such a lasting impact on a lot of us. She's a great listener and incredibly supportive. I've had the privilege of being her vice chair in both the Conference Organising Committee and the Executive and count myself one of the lucky ones. Katherine has taken the family feel of PCRS to another level, and I'm so pleased she's still part of it — I look forward to continuing to work with her and learn from her wise words."

Darush Attar Zadeh, Chair, PCRS Executive

As Chair of the Executive Committee, Katherine also worked closely with the PCRS Trustees and the Executive Director, Tricia Bryant. Dr Paul Stephenson, the current Chair of Trustees said,

"It has been a privilege and an absolute pleasure to work with Katherine. Her wisdom, professionalism and support has been superb, and I've no doubt that she has been, and will continue to be, a major contributor to the excellent relationship that exists between the PCRS Trustees and all its Committees."

By her leadership and inclusivity, Katherine has also inspired the wider PCRS community. Her passion for improving respiratory outcomes and her commitment to professional development have left a lasting legacy.

However, Katherine is not leaving us! We are delighted that she will continue her work with PCRS as a member of the Executive Committee for the next three years, and as the new PCRS Freedom to Speak Guardian. In this role, Katherine will ensure that the voices of our members are heard and that we continue to foster an open and transparent organisational structure.

We extend our sincere thanks to Katherine for her exemplary service as Chair of the PCRS Executive over the last three years.

Written and compiled by Tricia Bryant;
additional text and editing by Paul Stephenson.

Welcoming Darush Attar-Zadeh as Chair of the PCRS Executive

The PCRS is delighted to announce the appointment of Darush Attar-Zadeh as the new Chair of the Executive Committee. Darush is the first Pharmacist to take up this role. He is supported by Dr Maisun Elftise who has been appointed deputy chair.

Darush brings a wealth of experience to the role. A Clinical Fellow Pharmacist, he has long championed preventative medicine and patient-centred care. His leadership has spanned multiple initiatives, including his prior roles as Chair of the PCRS Conference Organising Committee and Co-Chair of the Taskforce for Lung Health Medicines Optimisation Working Group. He is also a lead for NHS RightBreathe.

His work has consistently focused on empowering healthcare professionals and improving outcomes for patients with respiratory conditions. Darush has presented at national and international conferences, including PCRS, IPCRG, ERS, and the Clinical Pharmacy Congress.

"It's a real honour to take on this role at such an exciting time for respiratory care, and I would like to thank my predecessor, Dr Katherine Hickman, for the amazing work she has done and continues to do.

I'm passionate about empowering colleagues across primary care to make every contact count — helping people breathe better, live better, and reduce health inequalities through prevention and innovation. I also believe in keeping things simple, so people living with lung conditions are not overwhelmed by jargon or medical terms but can truly understand and take control of their health. Together, we can continue to upskill our teams using the latest evidence, ensuring everyone has access to the best learning resources, and harnessing our networks to advance our development and wellbeing — so we can care better for our patients and ourselves," Darush reported.

As incoming Chair, Darush will continue PCRS's mission to promote *optimal respiratory health for all*, with a particular emphasis on prevention, collaborative practice, innovation in care delivery, and tackling health inequalities.

The PCRS community looks forward to Darush's leadership, confident that his vision and energy will further strengthen the society's impact across primary care and respiratory health.

Health inequalities

3 podcasts

1 newsletter

Our new health inequalities resources provide everything you need to know about caring for people with respiratory disease who are impacted by health inequalities and severe mental illness.

Tune into our podcasts and catch up on our dedicated newsletter to explore this topic and be inspired to take action.

We are grateful to Norfolk and Waveney ICB for sponsoring this new (2025) Health Inequalities project. This resource has been developed by PCRS, and Norfolk and Waveney ICB has had no input into the development, content or production of this material.

PCRS