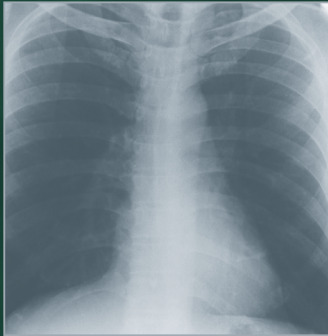


# National COPD Audit Programme

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## Time to take a breath

National Chronic Obstructive Pulmonary Disease (COPD) Audit Programme: National primary care audit (Wales) 2014–2015

**National clinical audit  
Executive summary  
October 2016**

Prepared by:



**Royal College  
of Physicians**



Royal College of  
General Practitioners

In partnership with:



**British  
Thoracic  
Society**



Commissioned by:



Working in wider partnership with:



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## **Healthcare Quality Improvement Partnership (HQIP)**

The National COPD Audit Programme is commissioned by the Healthcare Quality Improvement Partnership (HQIP) as part of the National Clinical Audit Programme (NCA). HQIP is led by a consortium of the Academy of Medical Royal Colleges, the Royal College of Nursing and National Voices. Its aim is to promote quality improvement, and in particular to increase the impact that clinical audit has on healthcare quality in England and Wales. HQIP holds the contract to manage and develop the NCA Programme, comprising more than 30 clinical audits that cover care provided to people with a wide range of medical, surgical and mental health conditions. The programme is funded by NHS England, the Welsh Government and, with some individual audits, also funded by the Health Department of the Scottish Government, DHSSPS Northern Ireland and the Channel Islands.

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[www.rcplondon.ac.uk/COPD](http://www.rcplondon.ac.uk/COPD) @NatCOPDAudit #COPDAudit #COPDtakeabreath

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Document purpose	To disseminate the results of the national COPD primary care audit (Wales) 2015
Title	<i>Time to take a breath: National Chronic Obstructive Pulmonary Disease (COPD) Audit Programme: National COPD primary care audit (Wales) 2014–15. National clinical audit report executive summary.</i>
Authors	Baxter N, Holzhauer-Barrie J, McMillan V, Saleem Khan M, Skipper E, Roberts CM (on behalf of the National COPD Audit Programme: primary care workstream)
Publication date	October 2016
Audience	Healthcare professionals; NHS managers, chief executives and board members; service commissioners; policymakers; voluntary organisations; patient support groups; COPD patients and their families/carers; and the public
Description	<p>This is the first of the COPD primary care audit reports, published as part of the National COPD Audit Programme. This report details national data relating to primary-care-delivered COPD care in Wales.</p> <p>The report is relevant to anyone with an interest in COPD. It provides a broad view of primary care services, and will enable lay people, as well as experts, to understand how COPD services function currently, and where change needs to occur.</p> <p>The information, key findings and recommendations outlined in the report are designed to provide readers with a basis for identifying areas in need of change and to facilitate development of improvement programmes that are relevant not only to primary care providers but also to commissioners and policymakers.</p>
Supersedes	There is no scheduled review date for this report because it is detailing the results of the first of three annual audits. Reports on future audit cycles, which are anticipated to be published in 2017 and 2018 will, therefore, add to the learning contained within this report.
Related publications	<ul style="list-style-type: none"> <li>• National Institute for Health and Care Excellence. <i>Chronic obstructive pulmonary disease in adults</i>. Quality Standard 10 (QS10). London: NICE, 2016. <a href="http://www.nice.org.uk/guidance/qs10">www.nice.org.uk/guidance/qs10</a></li> <li>• National Institute for Health and Care Excellence. <i>Smoking: supporting people to stop</i>. Quality Standard 43 (QS43). London: NICE, 2013. <a href="http://www.nice.org.uk/guidance/qs43">www.nice.org.uk/guidance/qs43</a></li> <li>• National Institute for Health and Care Excellence. <i>Chronic obstructive pulmonary disease in over 16s: diagnosis and management</i>. Clinical Guideline 101 (CG101). London: NICE, 2010. <a href="http://www.nice.org.uk/guidance/CG101">www.nice.org.uk/guidance/CG101</a></li> <li>• Stone RA, Holzhauer-Barrie J, Lowe D, Searle L, Skipper E, Welham S, Roberts CM. <i>COPD: Who cares? National Chronic Obstructive Pulmonary Disease (COPD) Audit Programme: Resources and organisation of care in acute NHS units in England and Wales 2014</i>. National organisational audit report. London: RCP, November 2014. <a href="http://www.rcplondon.ac.uk/projects/outputs/copd-who-cares-organisational-audit-2014">www.rcplondon.ac.uk/projects/outputs/copd-who-cares-organisational-audit-2014</a></li> <li>• Stone RA, Holzhauer-Barrie J, Lowe D, Searle L, Skipper E, Welham S, Roberts CM. <i>COPD: Who cares matters. National Chronic Obstructive Pulmonary Disease (COPD) Audit Programme: Clinical audit of COPD exacerbations admitted to acute units in England and Wales 2014</i>. National clinical audit report. London: RCP, February 2015. <a href="http://www.rcplondon.ac.uk/projects/outputs/copd-who-cares-matters-clinical-audit-2014">www.rcplondon.ac.uk/projects/outputs/copd-who-cares-matters-clinical-audit-2014</a></li> </ul>

	<ul style="list-style-type: none"> <li>• Steiner M, Holzhauser-Barrie J, Lowe D, Searle L, Skipper E, Welham S, Roberts CM. <i>Pulmonary Rehabilitation: Time to breathe better. National Chronic Obstructive Pulmonary Disease (COPD) Audit Programme: Resources and organisation of Pulmonary Rehabilitation services in England and Wales 2015.</i> National organisational audit report. London: RCP, November 2015. <a href="http://www.rcplondon.ac.uk/projects/outputs/pulmonary-rehabilitation-time-breathe-better">www.rcplondon.ac.uk/projects/outputs/pulmonary-rehabilitation-time-breathe-better</a></li> <li>• Steiner M, Holzhauser-Barrie J, Lowe D, Searle L, Skipper E, Welham S, Roberts CM. <i>Pulmonary Rehabilitation: Steps to breathe better. National Chronic Obstructive Pulmonary Disease (COPD) Audit Programme: Clinical audit of Pulmonary Rehabilitation services in England and Wales 2015.</i> National clinical audit report. London: RCP, February 2016. <a href="http://www.rcplondon.ac.uk/projects/outputs/pulmonary-rehabilitation-steps-breathe-better">www.rcplondon.ac.uk/projects/outputs/pulmonary-rehabilitation-steps-breathe-better</a></li> </ul>
Contact	<a href="mailto:COPD@rcplondon.ac.uk">COPD@rcplondon.ac.uk</a>

## Report preparation

This report was written by the following, on behalf of the national COPD primary care audit 2014–15 workstream group. (The full list of workstream group members is included at Appendix C of the full audit report.)

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We would specifically like to acknowledge the input of Mr Sunil Rai, Data Coordinator for the Falls and Fragility Fracture Audit Programme, in the production of this report.

## Foreword

Chronic obstructive pulmonary disease (COPD) inflicts a huge toll on individual patients, their carers, and on the NHS. In total, 1.2 million people in the UK have been diagnosed with COPD and 30000 people die of the disease each year.<sup>1</sup> In 2012 in Wales, the prevalence of diagnosed COPD was 2173 per 100000 people. The death rate from COPD in Wales is higher than in the UK generally, as are the rates of emergency admission to hospital for COPD.<sup>1</sup>

Previous national COPD audits have concentrated on acute management of COPD in secondary and tertiary care, but the current National COPD Audit Programme (commissioned in 2013) includes an audit of primary care for the first time. The original focus of the primary care audit was to collect data from practices in England and Wales relating to the routine care of people with COPD, which went beyond that provided by publicly available data sources. The metrics were based on recommendations in the COPD Clinical Guidelines and COPD Quality Standards produced by the National Institute for Health and Care Excellence (NICE) in 2010, 2013 and 2016<sup>2,3,4</sup> respectively.

There have been significant challenges and delays with the audit, due to increasing limitations on data extraction from practices in England. It has, therefore, not been possible to carry out the audit in England beyond publicly available Quality and Outcomes Framework (QOF) data, but it is hoped that this important work can be carried out in England in the future. Meanwhile, thanks should be given to the many health professionals and 280 practices involved in providing valuable information about the care of 48105 people living with COPD in Wales.

Primary care, embedded in a tradition of generalist care, plays a pivotal role in the day-to-day management of people with COPD, 80% of whom will have comorbidity. However, results of the COPD secondary care audit<sup>5,6</sup> have highlighted the need for better communication between secondary and primary care. The potential in future cycles for the National COPD Audit Programme primary care data to be linked to the secondary care data provides an opportunity for better integrated care between community and hospital services.

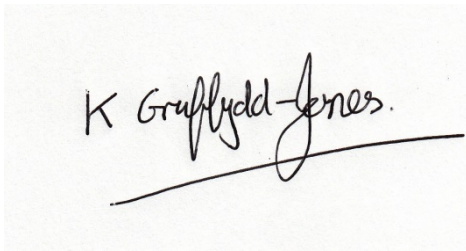
The data included in this report show wide variations, some of which may be due to data recording. There are high rates of reporting of Medical Research Council (MRC) breathlessness (dyspnoea) scores in the annual review, but low recording of other key metrics such as oxygen prescribing. Low recording rates could reflect lower standards of care, but also may reflect confusion about appropriate coding. There is undoubtedly a need for greater clarification about what should be asked during a routine COPD review and how this should be recorded.

Exacerbation frequency is an important guide to pharmacological treatment and an important marker of disease severity, and should be integral to efficacy of any COPD review. The recording of drug therapy in patient records is standard practice, yet the recording of the use of a very expensive and potentially harmful therapy, oxygen, is rarely carried out.

This report continues to emphasise the need to record an accurate diagnosis of COPD using the essential tools of chest X-ray and post-bronchodilator spirometry. It also highlights the variation in the prescription of inhaled steroids in COPD management and an underuse of higher value interventions such as smoking cessation and pulmonary rehabilitation. The system should ensure that these vital services are available to patients with COPD in all areas, in a timely and accessible form.

In summary, the first phase of the national COPD primary care audit highlights the need for a national template for COPD review with standardised coding. Confidence in accurate diagnosis of COPD needs to improve. Effectively targeted pharmacological treatments to prevent exacerbations, improve quality of life, relieve breathlessness and treat tobacco dependency, and the individualised mind and body treatment package of pulmonary rehabilitation can greatly improve the quality of life of many people with COPD. This

report provides the springboard for primary care to make sure that the right people get the correct diagnosis and receive effective treatment, whoever they are and wherever they are.

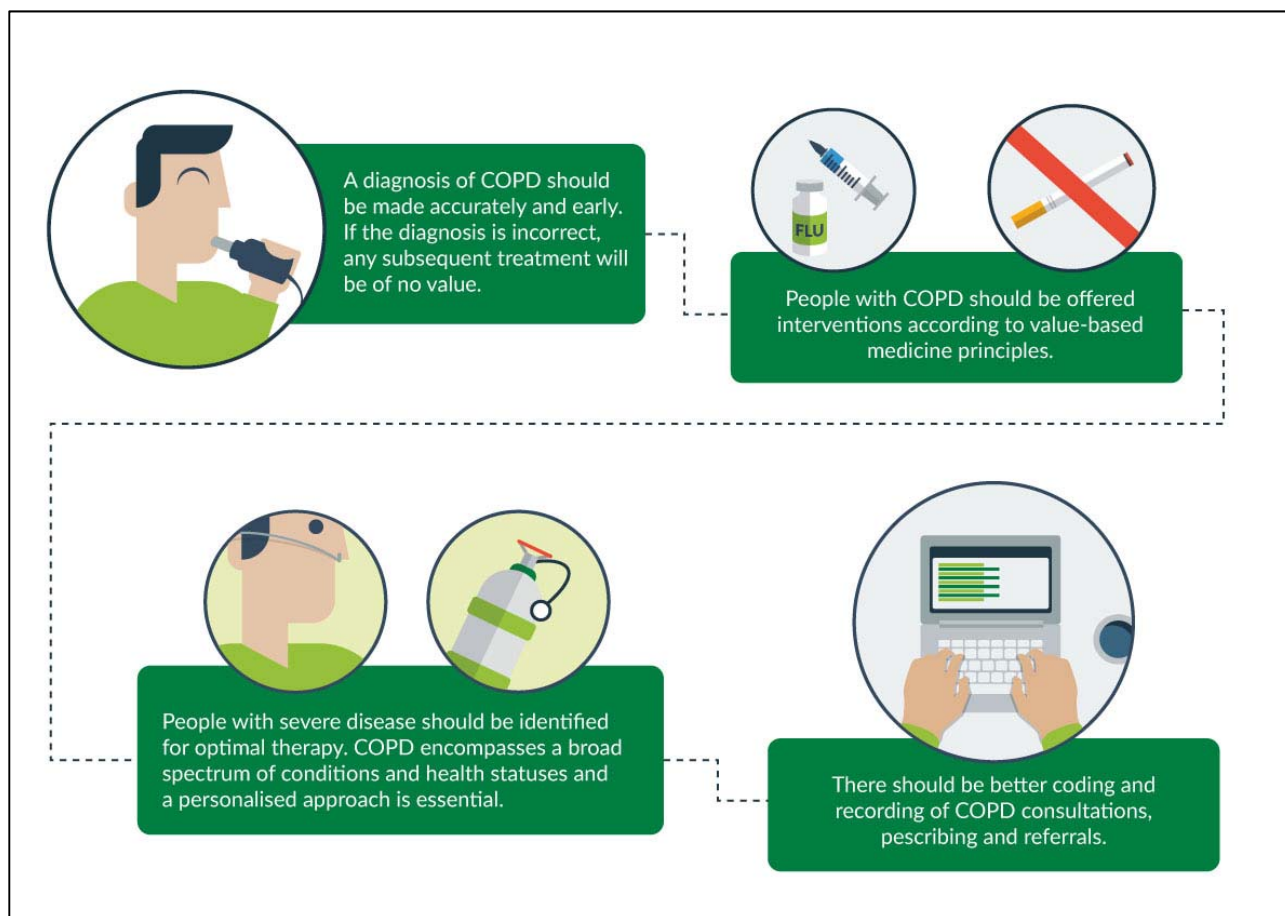
A handwritten signature in black ink on a light-colored background. The signature reads "K Gruffydd-Jones." and is underlined with a single horizontal stroke.

**Dr Kevin Gruffydd-Jones FRCGP**  
**Respiratory Lead, Royal College of General Practitioners**  
**Clinical Policy Lead, Primary Care Respiratory Society UK (PCRS-UK)**



## Executive summary

This comprehensive primary care snapshot audit for Wales in 2014–15 (the first for a UK nation) reports on the clinical effectiveness of COPD care in the general practice setting. This report helps to complete a picture of COPD services in Wales by adding to the recently published national COPD reports about the quality of hospital care<sup>5,6</sup> and pulmonary rehabilitation services.<sup>7,8</sup> This is the first time such an audit has been attempted, so part of the process has involved gaining learning about how we can do this better in future cycles. This audit report aims to support primary care clinicians who are currently working under considerable pressure to deliver a high standard of care to people with COPD. We hope to do this by sharing good practice and providing advice on how to address apparent deficiencies in care. To that effect, the report makes the following key recommendations:



We thank the 280 practices and the 48105 people registered with COPD who have taken part in this first of three cycles of audit. In total, we reached 61% of practices in Wales and we expect to build on that in future audit cycles.

This first data extraction and analysis has highlighted areas for quality improvement, and key priorities will be discussed in this report. We have also learned more about data quality, and all organisations should reflect on how they can enable general practice to make the best use of information systems to support future quality improvement.

The results demonstrate that the computerised coding of how a COPD diagnosis is made is not consistent between practices. Consequently, coding provided confidence in diagnosis (recording of an appropriate diagnostic test code and of a result for that test that was consistent with a diagnosis of COPD) for only 14.4% of people on COPD registers. Where there is evidence that spirometry has been performed, one-quarter of the values are not consistent with COPD. We have available to us life-saving and life-enhancing

therapy for people with COPD. These treatments are well evidenced and many are highly cost-effective. The extracted electronic data show there is good provision of many aspects of evidence-based COPD care but there may also be underutilisation of established NICE-advised interventions and potential overuse of harmful or ineffective treatments.

We know from less comprehensive reports and studies from within and outside the UK that Wales is no outlier in this regard.<sup>9</sup> However, this audit programme allows us to grasp the opportunity to improve the outcomes for the tens of thousands of people living with COPD in Wales.

The Wales Respiratory Health Implementation Group (RHIG) has told us that it has already recognised that there is a need to ensure accurate and timely diagnosis as well as more widespread use of the highest value COPD interventions.<sup>10</sup> The RHIG has instituted programmes and resource for better diagnosis and effective and accessible pulmonary rehabilitation programmes. We are confident that this work will show measurable improvement during the life of this audit programme and that the feedback of data to individual practices will inform local quality improvement initiatives.

We would encourage patient groups at the cluster and practice level to work with their general practices to aid further quality improvement. Separate reports, which display these data at a practice level, are already available via the NHS Digital website. Details on how to access these are available on the National COPD Audit Programme's website.<sup>11</sup> Reports displaying these data at local health board and cluster level will be released later in the autumn of 2016. These reports will help practices and health boards to prioritise their areas for improvement.

## Recommendations

**A diagnosis of COPD should be made accurately and early. If the diagnosis is incorrect, any subsequent treatment will be of no value.**

- a. People who have breathlessness and/or cough that does not go away or frequent 'chest infections' should have access to health professionals who have been trained to know what to do and have the resources to reach a diagnosis in a timely way. Spirometry is fundamental to a diagnosis of COPD and patients should be assured that their test has been performed and interpreted in the right way.
- b. Trained and competent health workers should offer people with a risk factor and symptoms suggestive of COPD a comprehensive and structured assessment.
- c. Clinical symptoms, risk factors and evidence of post-bronchodilator airways obstruction are all essential factors when making a diagnosis.
- d. People who are at risk of COPD are at a higher risk of lung cancer, and chest X-ray is an essential part of the breathlessness assessment and diagnosis of COPD.

**People with COPD should be offered interventions according to value-based medicine principles.<sup>12</sup>**

- a. Tobacco dependence treatment is safe, well tolerated and effective at prolonging life: it reduces flare ups and has a wider impact on health. However, it is underused. Health professionals who treat people with COPD should be trained to have the right conversation; to know how to assess dependency; and to feel confident and have the resource to treat it.
- b. Flu vaccination is effective and safe but underused in people with COPD. System leaders should identify where variation exists and ensure that people with COPD have the best information to make the right decision for them.
- c. Anyone with a Medical Research Council (MRC) breathlessness score of 3 or more should be offered and encouraged to do pulmonary rehabilitation by their primary care health professional and have timely and easy access to an appropriate provider of this evidence-based therapy.
- d. Health professionals providing inhaler therapy for COPD should have up-to-date knowledge about what devices are available and ensure that people are able to use their devices (NICE CG101, 1.2.2.11 to 1.2.2.14);<sup>3</sup> are offered optimal bronchodilator medication (NICE CG101, 1.1.6);<sup>3</sup> and are issued with inhaled corticosteroids (ICS) only when it is likely to be beneficial (NICE CG101, 1.2.2.2 and 1.2.2.3).<sup>3</sup> They should ensure that safety of long-term, high-dose inhaled steroids is discussed (NICE CG101 1.1.8).<sup>3</sup>

**People with severe disease (categorised according to the extent of airflow limitation)<sup>13</sup> should be identified for optimal therapy. COPD encompasses a broad spectrum of conditions and health statuses and a personalised approach is essential.**

- a. People having frequent exacerbations of COPD need to be identified, as they are at higher risk of an accelerated decline in their condition and may require specialist review both to manage symptoms and to slow decline. The recording of 'number of exacerbations in the last year' allows this group to be better identified by practices and prioritised.
- b. Long-term oxygen therapy is a life prolonging intervention for people with COPD who have hypoxia. When primary care health professionals detect low oxygen saturation in the primary care setting, referral to a suitable assessment and review service should be offered. Primary care should record the use of oxygen on patient notes as they would any other long-term medication, to ensure timely review for assessment of safety and effectiveness.

**There should be better coding and recording of COPD consultations, prescribing and referrals.**

- a. As patient access to personal health records improves and patients' involvement in their own care becomes an expected norm, there will be opportunities to support people with COPD to 'know their numbers' or, in other words, to understand why their spirometry test is consistent with COPD. They should be able to record quality of life assessments, their ability and confidence to use inhalers and their understanding of how to help themselves through access to and involvement with self-care documentation and action plans.
- b. Much of the variation seen in the data suggests variance in electronic coding. In order to link datasets across the system in the future, we ask the wider system (whether through development of the Systematised Nomenclature of Medicine coding system or other activity) to make standard recording templates available to ensure that the right things are recorded and that health professionals can spend more time with patients by avoiding the time spent on duplicate entries or manual entry. Health boards and clusters of GP surgeries should consider the use of a standardised set of codes and templates.

## Quality improvement resources

The National COPD Audit Programme has collated a range of materials to assist with local improvement work. A selection of these is listed below, and further resources will be available on our website ([www.rcplondon.ac.uk/copd](http://www.rcplondon.ac.uk/copd)) in due course.

### National Institute for Health and Care Excellence (NICE)

- *Chronic obstructive pulmonary disease in adults*, Quality Standard 10 (QS10). London: NICE, 2016. [www.nice.org.uk/guidance/qs10](http://www.nice.org.uk/guidance/qs10)
- *Smoking: supporting people to stop*. Quality Standard 43 (QS43). London: NICE, 2013. [www.nice.org.uk/guidance/qs43](http://www.nice.org.uk/guidance/qs43)
- *Chronic Obstructive Pulmonary Disease in over 16s: diagnosis and management*. Clinical Guideline 101 (CG101). London: NICE, 2010. [www.nice.org.uk/guidance/CG101](http://www.nice.org.uk/guidance/CG101) (and a good summary of recommendations is found at [www.nice.org.uk/guidance/cg101/chapter/guidance](http://www.nice.org.uk/guidance/cg101/chapter/guidance))

### British Lung Foundation (BLF)

The BLF website ([www.blf.org.uk](http://www.blf.org.uk)) has a lot of patient information and also some useful tools including the COPD patient passport (<http://shop.blf.org.uk/products/copd-passport>), the patient guide to oxygen therapy (<http://shop.blf.org.uk/collections/lung-healthinformation/products/oxygen-booklet>) and the patient guide to exercising with a lung condition ([www.blf.org.uk/Page/Exercise-with-a-lung-condition](http://www.blf.org.uk/Page/Exercise-with-a-lung-condition)).

### Primary Care Respiratory Society UK (PCRS-UK)

The PCRS-UK website ([www.pcrs-uk.org](http://www.pcrs-uk.org)) hosts a range of current educational tools and events and has a large archive of resources. Its core resources include:

- Quick guide to the diagnosis and management of COPD in primary care, 2016. <https://pcrs-uk.org/quick-guide-diagnosis-and-management-copd-primary-care>
- PCRS-UK tobacco addiction and smoking cessation advice, 2016. <https://pcrs-uk.org/tobacco-dependency-0>
- PCRS-UK wall chart on home oxygen prescribing, 2016. <https://pcrs-uk.org/wall-chart-home-oxygen-prescribing>
- PCRS-UK management of stable COPD in adults. [https://pcrs-uk.org/sites/pcrs-uk.org/files/os13\\_copd\\_stable.pdf](https://pcrs-uk.org/sites/pcrs-uk.org/files/os13_copd_stable.pdf)
- PCRS-UK table of inhaled drugs. [www.pcrs-uk.org/resource/Guidelines-and-guidance/table-inhaled-drugs](http://www.pcrs-uk.org/resource/Guidelines-and-guidance/table-inhaled-drugs).

### Royal College of General Practitioners (RCGP)

The RCGP has produced a guide to quality improvement for general practice to support the whole primary care team on their quality improvement journey. Some of the tools will be familiar, such as clinical audit and significant event analysis, however there are many more ways to take advantage of quality improvement to benefit patients and practices, and the guide is designed to help practices get started: [www.rcgp.org.uk/clinical-and-research/our-programmes/quality-improvement.aspx](http://www.rcgp.org.uk/clinical-and-research/our-programmes/quality-improvement.aspx)

### IMPRESS

IMPRESS is a collaboration between the BTS and the PCRS-UK, hosted by NHS Networks. It hosts a range of resources, including for commissioning and integrated care. For example:

- Acute breathlessness assessment. [www.impressresp.com/index.php?option=com\\_docman&task=doc\\_view&gid=101&Itemid=69](http://www.impressresp.com/index.php?option=com_docman&task=doc_view&gid=101&Itemid=69)
- IMPRESS *Guide to the relative value of COPD interventions*. [www.impressresp.com/index.php?option=com\\_docman&task=doc\\_view&gid=52&Itemid=89](http://www.impressresp.com/index.php?option=com_docman&task=doc_view&gid=52&Itemid=89)

The site draws together evidence and experience on COPD, heart failure, anxiety, obesity and anaemia: [www.networks.nhs.uk/nhs-networks/impress-improving-and-integrating-respiratory/news/impress-breathlessness-resources](http://www.networks.nhs.uk/nhs-networks/impress-improving-and-integrating-respiratory/news/impress-breathlessness-resources)

### British Thoracic Society (BTS)

- BTS/SIGN asthma guideline. [www.brit-thoracic.org.uk/guidelines-and-quality-standards/asthma-guideline/](http://www.brit-thoracic.org.uk/guidelines-and-quality-standards/asthma-guideline/)
- BTS guidelines for home oxygen use in adults. [www.britthoracic.org.uk/document-library/clinical-information/oxygen/home-oxygen-guideline-\(adults\)/bts-guidelines-for-home-oxygen-use-in-adults/](http://www.britthoracic.org.uk/document-library/clinical-information/oxygen/home-oxygen-guideline-(adults)/bts-guidelines-for-home-oxygen-use-in-adults/)
- *BTS recommendations for hospital smoking cessation services for commissioners and health care professionals.* [www.brit-thoracic.org.uk/document-library/clinical-information/smoking-cessation/bts-recommendations-for-smoking-cessation-services/](http://www.brit-thoracic.org.uk/document-library/clinical-information/smoking-cessation/bts-recommendations-for-smoking-cessation-services/)
- *The case for change: Why dedicated, comprehensive and sustainable stop smoking services are necessary for hospitals.* [www.brit-thoracic.org.uk/document-library/clinical-information/smoking-cessation/bts-case-for-change/](http://www.brit-thoracic.org.uk/document-library/clinical-information/smoking-cessation/bts-case-for-change/)

### Wales-specific

- National Wales influenza campaign. [www.nhsemployers.org/campaigns/flu-fighter/flu-fighter-cymru](http://www.nhsemployers.org/campaigns/flu-fighter/flu-fighter-cymru)

### Other

- GOLD guidance on COPD. <http://goldcopd.org/Guidelines/guidelines-resources.html> and <http://goldcopd.org/gold-reports/>
- London Clinical Senate. *Helping smokers quit: The expired carbon monoxide (CO) test.* [www.london senate.nhs.uk/wp-content/uploads/2015/04/Helping-Smokers-Quit-Programme-The-expired-carbon-monoxide-CO-test.pdf](http://www.london senate.nhs.uk/wp-content/uploads/2015/04/Helping-Smokers-Quit-Programme-The-expired-carbon-monoxide-CO-test.pdf)
- National Centre for Smoking Cessation and Training (NCSCT). A short training module on how to deliver very brief advice on smoking. [www.ncsct.co.uk/publication\\_very-brief-advice.php](http://www.ncsct.co.uk/publication_very-brief-advice.php)
- Primary Care Commissioning (PCC). *A guide to quality assured diagnostic spirometry*, 2013. [www.pcc-cic.org.uk/article/guide-quality-assured-diagnostic-spirometry](http://www.pcc-cic.org.uk/article/guide-quality-assured-diagnostic-spirometry)
- Jones R, Donaldson G, Chavannes N *et al.* Derivation and validation of a composite index of severity in chronic obstructive pulmonary disease: The DOSE Index. *Am J Respir Crit Care Med*, 2009;180:1189–1195. [www.atsjournals.org/doi/abs/10.1164/rccm.200902-0271OC#.Vrm1XkpFDGg](http://www.atsjournals.org/doi/abs/10.1164/rccm.200902-0271OC#.Vrm1XkpFDGg)

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- <sup>1</sup> British Lung Foundation. *Chronic Obstructive Pulmonary Disease (COPD) statistics*. <https://statistics.blf.org.uk/copd> [Accessed September 2016]
- <sup>2</sup> National Institute for Health and Care Excellence. *Chronic obstructive pulmonary disease in adults*. Quality Standard 10 (QS10). London: NICE, 2016. [www.nice.org.uk/Guidance/QS10](http://www.nice.org.uk/Guidance/QS10)
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**For further information on the overall audit programme or any of the workstreams, please see our website or contact the National COPD Audit Programme team directly:**

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