The London Respiratory Team testing messages with respiratory patients and carers in North London at the launch of the British Lung Foundation Haringey and Islington Breathe Easy Group May 2011.

Increasing the value of the respiratory programme budget and improving the experience of all Londoners with COPD by minimising the impact and cost of the disease

January 2012
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Who we are

The London Respiratory clinical team was recruited from primary, community and secondary care; each member contributing between half and one day each week. It is co-led by a respiratory physician, Dr Louise R Esther, and a GP, Dr Noel Baxter. Acknowledging the value of other roles, we also appointed an expert carer and programme manager. Initially supported by Commissioning Support for London until its closure in March 2011, we subsequently recruited a full-time Programme Coordinator to provide analytical and administrative support to each workstream, coordinate meetings and our communications. Other regional respiratory teams have followed suit, appointing a mix of professionals and programme managers; we remain the only team with an expert carer and have more recently also appointed a Pharmaceutical Advisor. The team meets bi-monthly to monitor progress and to share intelligence about commissioner and provider feedback and developments.

See Appendix 1 for LRT biographies.

Accountability

The LRT reports to Dr Andy Mitchell, Medical Director, NHS London who is accountable to the Department of Health Respiratory Team, who ultimately report to Professor Sir Bruce Keogh, NHS Medical Director. More than just a line of accountability, the team has been enabled by strong endorsement and philosophical support from NHS London.

Our activity is scrutinised by the LRT Programme Board, chaired by Robyn Hudson Managing Director, North East London North Central London and Essex Health Innovation and Education Cluster (HEIC), that meets bi-monthly and draws on the expertise and experience of the British Lung Foundation, assistant directors of social services, academic health sciences centres, the NHS Lung Improvement Programme, and NHS medicines management.

The current LRT Programme Board is composed of the following members:

- Ore Okosi – National Improvement Lead, Lung Improvement Programme, NHS Improvement;
- Karen Ahmed – Head of Adult Commissioning, London Borough of Barking & Dagenham;
- Dr Sarah Elkin – Consultant Respiratory Physician at Imperial College London;
- Mike McKevitt – National Services & Development Manager England, British Lung Foundation;
- Prof John Moxham – Medical Director & Professor of Respiratory Medicine, Kings College Hospital & Medical School;
- Brenda Scanlan – Director of Support for Younger Adult Services, Croydon Council; and
- Helen Pettersen – Director of Transition & Corporate Affairs, North Central London.

Our way of working

Workstreams

Our work comprises a number of workstreams. Each has its own objectives (See Appendix 2). Movement towards these objectives is defined by a number of criteria. These have enabled us to set measurable outcomes for our work to support the NHS in London to and to define standards. This work plan is regularly reviewed by the team to monitor our progress, to re-assess its relevance to commissioners’ needs and ensure it encourages and rouses London’s respiratory community.

Diffusion of messages and innovation

London is a complex health and social care system of 32 boroughs, a changing picture of commissioning, and fluid provider boundaries. The national respiratory team has advocated the use of networks as a way to spread messages and gain influence. Whilst supportive of the model, we concluded that there were no established and active respiratory networks in London, and therefore we chose to use a diffusion of innovation model, where we have begun to identify the innovators and the early majority.

We communicate our priorities and messages through narratives that connect with patients, clinicians and managers. We test and then use consistent stories, slogans and visuals that can be easily passed on to others. We have also been testing out the “burning platform” ideology promoted by Helen Bevan of the NHS Institute for Improvement and Innovation which describes a stark choice between staying where you are, or making a jump for it. We have tried to reach as wide an audience as possible, using personal contacts, existing networks and proactive promotion to the wider health and social care system (See Appendix 3 for a list of LRT presentations). In Year One this has created a larger group of clinicians supportive of our messages and ambitions.
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Each of our workstreams has not only:

- A nominated clinical lead;
- A workplan including objectives, criteria, outcomes, standards and time-bound tasks that are regularly revisited but also
- Key messages (See Appendix 4)

We test these plans and messages with our expert carer and she tests them with patient groups to check that they are meaningful, understandable and wanted. For example, our inhaler message of “50p a puff” startled patients but was understood and accepted.

**Working across silos**

The team has been influenced by the thinking on integrated care, including IMPRESS [http://www.impressresp.com/Home.aspx](http://www.impressresp.com/Home.aspx) that suggests that the best yield in terms of improved care for patients and increased efficiency would be by breaking down silo-working. Therefore from the beginning we have crossed boundaries, meeting with and building personal and system relationships with Health Innovation and Education Clusters (HIECs), medicines management, social care, mental health, public health, ambulance services, palliative care and stop smoking services.

**Alignment with quality, innovation, productivity and prevention (QIPP)**

The team recognised that its role was not to do everything itself, or to mandate, but rather to enable and support colleagues to deliver improvements for people with respiratory disease in their localities, working with others. The QIPP programme is a major driver of activity in London. Therefore the team decided to align our work with the QIPP challenge to achieve quality and productivity improvements in London in a rational and long-sighted way. This meant that whilst working in the context of a consultation on a new national outcomes strategy for COPD and asthma, the team focused on COPD, which has more immediate QIPP potential. However, where asthma care was a particular problem for London or where it aligned closely with our COPD programme such as stop smoking and prescribing work streams, this has also been included. The Right Care framework encouraged us to start with what should be counted, not what is counted. We aim to make these one and the same over the course of our programme. This can be illustrated with the London Health Programmes COPD profiles, which are spine charts showing variation of care, including, as a result of our lobbying, several blank rows where the data are important indicators, but not yet available (See Appendix 5 for a copy of the spine chart).

**Translating Right Care theory into practice**

**Commissioning for quality and innovation (CQUIN)**

In addition to separate workstreams, as part of our diffusion of innovation model, we have taken the COPD Discharge Bundle developed by North West London’s (NWL) Collaboration for Leadership in Applied Health service Research and Care (CLAHRC) that has combined five evidence-based interventions, and converted them into a CQUIN that was accepted onto the London pick-list and taken up in the contracts with 6 trusts in four clusters. This was worth more than £2 million across London and has been a major incentive to improve care.

**Right Care and value**

Our first year of work coincided with the shift in policy to measuring outcomes of NHS investment rather than processes. We identified a model of value in healthcare with tiered outcome priorities by Porter and Lee that was published in the NEJM [What is value in health care? Porter ME. NEJM 2010;363:2477-2481](http://www.impressresp.com/) in December 2010. We have been developing our thinking along these lines and showing audiences how COPD outcomes can be measured using this structure. The London Health Programmes COPD profiles (See Appendix 5) are an example of how we have utilised this model to influence a London-wide product. The highest tiered outcome is a reduction in premature mortality and this was a key message in these profiles. A number of PCTs were galvanised into action through awareness of their higher rates of premature mortality when compared with similar regions/organisations.

**Relative Value of Interventions: The Value Pyramid**

In order to translate this discussion about value for the benefit of commissioners we needed a visual tool that could engage and quickly involve people in a discussion about which interventions in COPD provided the best value. What arose from this was a value pyramid that used the concept of cost per quality adjusted life year (QALY). The initial draft has attracted much attention from other respiratory team leads in England and leading health economics thinkers such as Porter and Lee. It shows that the best value treatments for COPD are supporting patients with COPD to stop smoking and pulmonary rehabilitation. It is now being developed further by IMPRESS (Improving and Integrating Respiratory Services [www.impressresp.com/](http://www.impressresp.com/)) in collaboration with the Health Foundation-supported health economists at the London School of Economics as we expect this product to significantly change the way we think about providing healthcare. See the LRT Value Pyramid in Appendix 6.

**Case for change**

In Year One clinical commissioning groups (CCGs) began to form and they asked us where the savings might be found in respiratory care and where might quality be improved. In response, we published our case for change. So, together with our thinking on value, we analysed the London respiratory programme budget and the trends in increased expenditure, and offered ways to improve care by disinvesting in areas where there was evidence of waste and low value, such as some medicines prescribing and reinvesting in others, namely stop smoking support and pulmonary rehabilitation. See the LRT case for change in Appendix 7.
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Workstreams

First phase  September 2010–March 2011 priorities
Our first four priorities, to align with QIPP were:

- **Smoking cessation**, re-framed as "Stop smoking, the treatment for COPD". We communicated the evidence that this is the most cost-effective treatment for COPD; is every health professional's business; and is different from perceiving smoking cessation as a public health preventative activity.
  Led by: Dr Noel Baxter and Dr Louise Restrick

- **Medicines Management**: described as Responsible Respiratory Prescribing, communicating seven messages based on our analysis of inhaler and prednisolone use across London, revealing unwarranted variation, waste, excess cost and potential safety concerns. We see significant potential to release respiratory programme budgets to support existing good COPD services and to extend others by reducing misuse and overuse in prescribing.
  Led by: Dr Vince Mak

- **Home oxygen use**: focusing on responsible prescribing and getting improved assessment and review systems in place to enable this, based on the evidence of inappropriate prescribing, in particular oxygen being used to treat breathlessness rather than hypoxia.
  Led by: Dr Craig Davidson

- **Pulmonary rehabilitation**: aiming to improve awareness about what it is, its effectiveness and value, and ensuring equality of access to all those who would benefit (http://www.nhs.uk/conditions/chronic-obstructive-pulmonary-disease/pages/treatment.aspx)
  Led by: Maria Buxton and Sam Prigmore

Second phase  March 2011–August 2011
Once the first four workstreams were established and work was underway to map current services and to analyse routine data the team's second phase has been to select other themes that run through the national COPD and asthma outcomes strategy, published in July 2011. The focus of these is less on the quality and productivity agenda, and more on quality and outcomes. These are:

- **Earlier diagnosis**, as distinct from early diagnosis, because the emphasis must be to find people who want to be found, including those not currently accessing the healthcare system; who would benefit from an intervention and who are likely to respond to clinical advice and support to stop smoking. The aim is to reduce the progression of COPD and improve the balance of disease severity in the COPD population so there are proportionately fewer with disabling disease.
  Led by: Dr Chris Cooper

- **Advanced and supportive COPD care**, making a clear distinction between people with COPD who may survive for several years living with severe and disabling breathlessness, and those in their last, often unpredicted and unpredictable, weeks of life who need end of life care.
  We believe neither are well served by current services.
  Led by: Sam Prigmore

- **Integrated care**, which we concluded is an enabler for our other activities, not an end in itself and should be local, involve a wide range of people and agencies all working together to provide the right care at the right time in the right way for each individual with COPD.

Achievements

Stop smoking
We have started to create a "burning platform" for stop smoking support to be the most important treatment for COPD and for people with asthma who smoke both in London and also nationally. The evidence exists for the cost-effectiveness of intensive stop smoking support for people with COPD but it is not offered routinely. We have also identified some shocking gaps in data: we do not know from routine information how many people with COPD smoke (although it is in GP records). The last national COPD service audit in 2010 completed by most London trusts (See the following link - http://www.erscopdaudit.org/project/goal.html), did not ask about smoking prevalence of patients admitted with a COPD, and neither did the 2010 national asthma audit. We have presented the data at over 20 misuse and the messages have been received and understood. This is the first step in achieving changed clinical behaviour.

We believe in incentivising clinicians to do the right thing, and authored a stop smoking CQUIN for the 2010/11 London pick-list. This was accepted onto the list, but not taken up by any commissioner. Our starting point was:

1. Smoking cessation is a TREATMENT for disease not just a preventative intervention.
2. Where do we find smokers in large numbers who need the treatment? Hospitals (and maybe virtual wards in future)
3. What is done systematically in hospitals to record smoking status and start/build on the work done in primary/community services to help people quit? Very little.
4. What resources do hospitals have? BTS Stop Smoking Champions funded by the Department of Health and the organisational development undertaken for the achievement of the national mandatory VTE CQUIN.
5. Is it a sufficient stretch to warrant a CQUIN? Yes, coding is poor, interventions are inconsistent - it is an organisational challenge.
We made the case for stop smoking to improve outcomes for all admitted patients, medical and surgical, and incentivised hospital teams to ask about and record smoking status and refer patients who smoke to specialist stop smoking services. It was supported by cluster commissioners to be on the list again in 2012/13.

We believe that one of the reasons that stop smoking is not perceived as a treatment is that the evidence that feeds guidelines and protocols has been dominated by pharmaceutical industry-funded studies on specific inhaled medicines. Three major opinion changing studies (TORCH, UPLIFT, POET) that looked at the impact of inhaled medicines on morbidity and mortality in people with COPD, demonstrated in their baseline characteristics of subjects that 29-48% entered the trial as current smokers. We concluded that i) patients are repeatedly being failed as they appear not be receiving the most appropriate treatment for their disease and ii) the research community ought to ask the question – how would stop smoking interventions compare with these medicines if the same measures of impact on morbidity were used? Our team successfully presented this challenge to the authors of the most recent of these studies, the POET trial through correspondence published in the highly regarded New England Journal of Medicine this year. (See Appendix 8 New England Journal of Medicine Tiotropium versus Salmeterol in COPD).

We have also begun to work with NHS London leads for mental health to explore the crossover between high levels of poor physical health in people with severe mental health problems, smoking of tobacco and cannabis and COPD and asthma.

The LRT has this year been voicing its concerns about the way we recognise, record and manage cannabis-associated lung disease. We have approached the British Lung Foundation (BLF) regarding their ‘Cannabis: A Smoking Gun?’ report published in 2002 to suggest a review of the evidence and a published update. The BLF are now working on this as they too recognise this as a problem and that there is much more to do in raising awareness since the 2002 report.

**Responsible Respiratory Prescribing**

Did you know that some inhalers cost 50p per inhalation and three out of the top five most expensive individual items to the NHS in England are respiratory inhalers? Did you know how little inhaled medicine gets to the lungs even if the patient uses the inhaler well (15%) and therefore how important it is to teach them to use the inhaler effectively? So, our first output was seven responsible prescribing messages that have been tested with London clinicians and patients. The clinical lead has presented our seven messages to the national leads, igniting another burning platform about responsible prescribing and the need to improve inhaler technique and consider value when prescribing. In addition, he has lectured to the pharmacy leads nationally and in London, and advised on the development of the new pharmacy contract for Medicines Use Reviews to see how these could benefit patients and reduce misuse. At least four borough-wide primary care meetings involving GPs, nurses and pharmacists have also discussed the messages and the implications for local guidelines. Other regions have also picked up on the messages. In our first year we have also been considering the potential harms of high dose inhaled corticosteroids and within our messages we have identified a need to advise patients about the risks of taking and withdrawing from high dose inhaled steroids. Within the next year we will be working with the medicines team at NHS London to produce a steroid alert card for patients.

**Pulmonary rehabilitation**

We now know what services are available in every borough in London and have mapped these in a unique audit. The results reveal a variation in access to care; 5 boroughs had none at the time of the audit. They also highlight significant variation in the quality of care across London. We have hypothesised the root causes to be the absence of commissioning attention and investment; a lack of standardisation of data collection and an absence of agreed quality standards. An abstract on this audit was accepted by the British Thoracic Society (BTS) for presentation at its Winter Meeting 2011, which ensures it is peer-reviewed and also added to the growing evidence-base (See Appendix 9 for a copy of the BTS abstract presentation on Pulmonary Rehabilitation). To remedy the service shortfalls, we have developed draft standards that we are testing out in London but have also advised inclusion into a new Commissioning Pack for COPD being prepared by the Department of Health and an IMPRESS guide (published December 2011 www.impressresp.com). In terms of data collection, there are some system problems that need resolution nationally but meanwhile we will devise local guidance to help commissioners and providers improve the specifying, reporting and monitoring of services. We will also build a new community of practice, by engaging those providers who deliver pulmonary rehabilitation services and encouraging them to help each other to deliver the standards in the Commissioning Pack.

**Responsible Prescribing of Oxygen**

We set up the oxygen workstream in recognition of its potential to improve quality, productivity and in particular to reduce misuse. It is particularly timely because a new national contract for home oxygen services was procured during Year One with transition to take place on 2 April 2012. Therefore we have integrated into our workplan our support to the NHS London Commercial Support Unit for the smooth transition to the new contract. In Year One, following a survey of 100 providers, we now have a map of home oxygen assessment and review services across London, and a Clinical Oxygen Group to guide the workstream and to scrutinise and offer advice to the London Oxygen Mobilisation Board responsible for transition to the new contract. Like Pulmonary Rehabilitation, few of the oxygen services are actively commissioned, and there are significant shortfalls in provision, which reflects the national picture. These findings too have been accepted by the British Thoracic Society for presentation at its Winter Meeting (See Appendix 10 for a copy of the BTS Abstract Presentation on Oxygen). We have also begun our work to protect patients at risk of oxygen poisoning through liaison with the London Ambulance Service and representatives of emergency services. We also contributed to the BTS national audits of non-invasive ventilation and oxygen use. This is important given the evidence of the benefit of both interventions in patients with respiratory failure and a key reason why patients should be admitted to hospital. The lead, Craig Davidson, also talked on this at the IMPRESS conference in March 2011 IMPRESS conference webcasts at [http://www.impressresp.com](http://www.impressresp.com).
Advanced and supportive care – living with COPD
Following a workshop, a review of national generic end of life guidelines, mortality figures, the national outcomes strategy and local discussion, we have identified four objectives for this workstream. Importantly, we want to emphasise that the work cannot be reduced to improving end of life care. We need providers to improve the quality of life for people living with COPD and its symptoms such as disabling breathlessness for potentially several years. This is likely to require another LRT set of messages to alter thinking and hence behaviours, supported by a long-term commitment to investment in training, education and different services. This will be taken forward in Year Two.

Earlier diagnosis
The LRT commitment to the national strategy has been to start by supporting the system to make a diagnosis of COPD earlier (as distinct from early) in the disease progression and to communicate why it is worth doing. We want to get the health system to regard COPD as being as serious a diagnosis as lung cancer (or some other serious often-fatal condition). We have identified that our role is to help systems identify where people who are most at risk live and work, and then to test strategies to reach them, diagnose them and offer them help.

Communications
The LRT has a number of web pages hosted on the NHS London website and these pages are updated with new LRT products on a regular basis. Working with NHS London Communications the website has been updated to fit with the SHA communications strategy. The LRT webpage now provides information on the LRT team members, each current and past workstream as well as links to important LRT publications including (but not limited to) factsheets, newsletters and presentations. The webpage also links directly to the LRT email (lrt@london.nhs.uk) which is checked daily and a report of all incoming correspondence is maintained. The webpage is actively promoted to colleagues in all correspondence and more recently has received an increasing amount of traffic.

In addition to the improved LRT webpage we have also connected with other respiratory links across the country via the NHS networks web portal. Working with the Department of Health Office of the Chief Scientific Officer, the LRT now has a live NHS networks page which will be used to update respiratory colleagues around the country as well as locally. This portal will be useful for colleagues to find any of the various LRT presentations, publications or other documents.

Through both the LRT webpage and NHS Networks we now have a solid platform through which all LRT related products can be viewed.

As a team we have been meeting with patients and carers through Breathe Easy and the British Lung Foundation to hear about what matters to Londoners living with COPD directly, or supporting those that do. We also, as a principle, test our messages with patients and carers.
## Pan-London links

We have connected, with NHS London support, to a number of London-wide groups

- Clinical Senate
- Medical Directorate
- Commissioning Support for London (now London Health Programmes) and London Health Observatory
- Mental Health
- Home oxygen procurement team
- Clinical commissioners network hosted by Kings Fund
- Networks such as PLAN
- Association of Directors of Adult Social Services (ADASS)

## Products

### Direct

We have produced a number of products to support our workstreams

- Factsheet - Stop smoking: The treatment for COPD (see Appendix 11)
- Factsheet - Stop smoking therapy: Step 1 management in smokers with asthma?
- 7 Responsible Respiratory Prescribing messages (See Appendix 4)
- 3 Oxygen messages (See Appendix 4)
- COPD Discharge Bundle CQUIN (see Appendix 12)
- Stop smoking CQUIN
- Value pyramid – showing the relative value of different interventions (this has been taken up by IMPRESS [www.impressresp.com] to take on further (see Appendix 6)
- Pulmonary Rehabilitation Map showing spread of PR across London (see Appendix 8 – BTS Abstract presentation poster)
- Case for Change (See Appendix 7)

### Indirect products

- Lung Improvement Programme (LIP) programmes and reports from London
- PCT COPD profiles (produced by London Health Programmes with help from LRT (see Appendix 5 spine chart/COPD profile)
- Bexley PCT COPD pathway

### Challenges

Our biggest challenge is to engage with clusters and GP commissioners at a time of change and uncertainty. In addition, we need to ensure the sustainability of our interventions beyond the life of the London Respiratory Team, due to end in 2013.
Future Plans

In addition to following through the specific workplan objectives we plan a number of generic activities.

Spreading the messages wider
We believe our messages are compelling, and they need to reach more people. They are publicised on the LRT website and incorporated into our Case for change document. In Year Two we need to meet even more people and communicate our messages to more people, asking them what they can commit to, in terms of changing their practice and also passing on our message to others:

• How would a GP in Newham know?
• Why don’t all acute physicians know about us?
• How can we introduce the national REACT message?

We will continue to showcase London examples in national work such as the NHS COPD Commissioning Pack and other opportunities. This requires us to crowd source more – to encourage and support London teams to submit to conferences and to share their work. We will guide the NHS Improvement - Lung to work with selected sites to produce generalisable results for example with regard to case-finding and occupational health.

In Year Two we will identify ways to work with both the majority and the “laggards”, using the diffusion of innovation methods tested in Year One. We will communicate and promote uptake of successful incentive schemes for primary care and further develop hospital incentives through a number of proposed CQUINs that should encourage Right Care including stop smoking support for ALL people admitted to hospital who smoke.

Breaking down the silos further
The logic of our work is that we need to go to where the people at risk of COPD are; that means finding the people who smoke and offering them support. We know who and where these at risk populations are: they are people with severe and enduring mental health problems; they are the staff who work with people with mental health problems; they are people from certain ethnic groups such as Bangladeshi men; and routine and manual workers. So, in Year Two, we will be working with others to identify how best to offer stop smoking support and to find those with COPD who would benefit from further intervention.

Broadening our remit
Where the possibilities exist, for example through messages about stop smoking, responsible prescribing, and accurate diagnosis, we will extend our reach to the relevant teams, patients and carers, for example in asthma and mental health. We will also collaborate with relevant Olympics activity as part of the Public Responsibility Deal.

Improving data collection
There are many opportunities for improving what is collected, how it is recorded, and how the data are used. Our priorities for our second year of operation include:

• Defining the codes for our proposed CQUINs
• Encouraging practices to monitor smoking status of their COPD patients
• Monitoring the implementation of the home oxygen contract
• Monitoring provision of pulmonary rehabilitation
• Combining data sets to monitor prescribing changes for COPD
• Monitoring any increases in case-finding

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Legacy
We know that the NHS Commissioning Board will have a London base and so the London team continues to have geographical alignment. Until the end of our funding in 2013 we need to put the systems, networks, incentives and messages in place to deliver the outcomes strategy:

• Better prevention of COPD
• Reducing premature death
• Improving quality of life
• Improving safe and effective care
• Reducing the impact of asthma
• Reducing inequalities in access to and quality of services

This involves identifying organisations that can sustain our messages and momentum in the longer term.

We also need to champion the needs of respiratory patients in any London-wide efforts to transform acute care where opportunities present themselves, such as review of the cluster commissioning strategic plans (CSPs).

We will also ensure through the London Oxygen Mobilisation Board that the new oxygen contract works to the benefit of patients.

Conclusion

The London Respiratory Team’s success in engaging the wider clinical community suggests that setting clear objectives, developing compelling narratives, being positive, challenging what is measured, and adapting objectives and approaches to a fast-changing context, are the right ways to proceed. We shall continue to refine and implement our workplans, and discharge our accountabilities through regular reports.
Appendix 1 - LRT biographies

Dr Louise Restrick  
NHS London Respiratory Team Co-Lead  
Clinical Lead - Stop Smoking as a treatment for COPD

Dr Louise Restrick is a consultant respiratory physician at Whittington Health, an integrated care organisation in North London, a member of IMPRESS, a joint BTS and Primary Care Respiratory Society (PCRS-UK) Group and chairs the NHS Camden, Islington and Haringey Respiratory Prescribing Network. She has a long-standing commitment to improving the experience of, and outcome for, patients with respiratory disease, using a co-creating health model and working with every possible clinical pathway. She co-leads the Whittington Hospital multi-disciplinary COPD Team (Hospital Doctor COPD Team of the Year 2006).

Dr Noel Baxter  
NHS London Respiratory Team Co-Lead  
Clinical Lead - Stop Smoking as a treatment for COPD

Dr Noel Baxter is a GP at Surrey Docks Health Centre in Southwark and a champion for respiratory services in NHS Lambeth and Southwark. He is also a member of the Primary Care Respiratory Society (PCRS-UK) executive and a representative on the IMPRESS implementation group. He supports the BLF through his membership of the London and South-East committee. He is committed to the challenge of improving care for Londoners with COPD and asthma with a particular focus on the health inequality factors that result in poor outcomes.

Siân Williams  
NHS London Respiratory Team Programme Manager

Siân Williams is also programme manager for IMPRESS, which is a joint venture between PCRS-UK and the BTS to improve and integrate respiratory services. Many of the themes picked up by the London team in the first year have developed from work initiated by IMPRESS, but now the process works in both directions. Siân has an NHS management background, and a public health degree. She has also worked in the private sector in medical communications and continues to collaborate with an international respiratory group - www.theipcrg.org. Her experience and interests are in whole systems change and service development.

Maria Buxton  
Clinical Lead - Pulmonary Rehabilitation

Maria Buxton is a consultant respiratory physiotherapist, currently working jointly for North West London Hospitals Trust and Brent PCT in an integrated role. She is the clinical lead for pulmonary rehabilitation in Brent, co-leads the Brent community respiratory team with Dr Vince Mak as well as having a lead role within the acute hospital respiratory physiotherapy team and the Hospital at Home service for respiratory patients. She also actively contributes to national policy on physiotherapy and pulmonary rehabilitation.

Sam Prigmore  
Clinical Lead - End of Life/Living with Advanced COPD

Sam Prigmore is a respiratory nurse consultant at St Georges Healthcare NHS Trust. She is a member of the BTS representing nursing on several committees. She is a trustee for the BLF and a trainer for Education for Health. Clinically, she has a special interest in managing complex patients in the community, non-invasive ventilation, palliative care, adolescent asthma and asthma and pregnancy.
Craig Davidson has been a consultant in respiratory & critical care at Guys & St Thomas’ Foundation Trust for over 20 years and leads on oxygen. He is the clinical director of a tertiary care service for home mechanical ventilation, the Lane Fox Respiratory Unit. He is a champion for COPD and has led on a transformation project in South London that re-designed care provision in COPD. He aims to improve oxygen provision in the capital, providing better and more efficient treatment for patients. He also is leading on national guidelines for the management of respiratory failure for the BTS.

Vince Mak is a consultant respiratory and critical care physician at North West London Hospitals Trust with a special interest in COPD, respiratory failure and sickle cell lung disease. Vince is the Clinical Director for Emergency Services and has a significant commitment to acute medicine. He is an honorary senior lecturer at Imperial College and frequently talks on asthma and COPD. Vince developed the first “one-stop” COPD clinic in the UK. His team formulated one of the first agreed prescribing and management guidelines for respiratory drugs between primary and secondary care.

Dr Chris Cooper is a full time GP and GP trainer in Archway, North London. In his current practice he is clinical lead for respiratory medicine and joint lead for mental health. Locally, he has participated in COPD commissioning work and attends the local respiratory prescribing and oxygen sub-group meetings as GP representative, as well as having been involved in the development of the COPD local enhanced service for primary care. He is also a GP member of NICE Technology Appraisal Committee C.

Sasha Wilson has taken on the patient and carer representative role having cared for her mother from diagnosis with COPD, to the end stages of living with the disease. Sasha has considerable experience of interacting with the COPD acute and community based services in North London. Sasha has a strong commitment to helping to improve services for patients with chronic respiratory disease and to highlight from a patient’s perspective the areas where the care delivered is already excellent. Professionally Sasha is a nurse who specialises in haematology and trained at UCLH Foundation Trust where she is currently employed.
Appendix 2 - LRT workstream objectives

London Respiratory Team

**Aim:** To improve the experience of Londoners with COPD and reduce the impact of the disease

**Purpose:** We will support clinicians, managers, health and social care commissioners and local authorities to work together and with patients and their carers to:

1. Raise awareness of lung diseases, particularly COPD, and the treatments available, promoting individual responsibility
2. Achieve earlier and accurate diagnosis of all Londoners with COPD
3. Provide support and effective treatment for those people with COPD addicted to tobacco and/or smoked or inhaled drugs
4. Optimise medicines use, in particular inhaled therapy, and reduce unintended harm by promoting responsible prescribing
5. Rationalise the use of oxygen, minimise waste and unintended harm
6. Offer Londoners with COPD timely access to Pulmonary Rehabilitation to improve their ability to cope day to day, enhance their quality of life, slow decline and increase their independence from services
7. Help Londoners and their families navigate local health and social services so they have the right treatment and services at the right time for their personal needs and in a way that suits them
8. Improve the care Londoners with COPD and their carers receive when severely ill or at the end of life through advance care planning, access to life-saving mechanical ventilation, long term oxygen and bereavement support
9. Create a shared learning environment that promotes research, routine measurement, review and feedback to those who make decisions about care and treatment
10. Develop the skills, knowledge and attitudes of health and social care professionals across London who care for people with COPD

**Accountability:** We will define measures of success and report services’ progress against these to NHS London

http://www.london.nhs.uk/what-we-do/our-current-projects/london-respiratory-team

Version 2
Approved by Programme Board
1 April 2011
Appendix 2 - LRT workstream objectives continued

We will support clinicians, managers, health and social care commissioners and local authorities to work together and with patients and their carers to:

<table>
<thead>
<tr>
<th>Workstream</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop Smoking</td>
<td>1. Londoners with COPD or asthma who smoke and want to stop receive the ‘right’ stop smoking support.</td>
</tr>
<tr>
<td></td>
<td>2. Londoners with COPD and asthma take control over their condition through use of ‘right’ stop smoking support.</td>
</tr>
<tr>
<td></td>
<td>3. Healthcare professionals across London want to and know how to provide ‘right’ stop smoking support in people with COPD and asthma.</td>
</tr>
<tr>
<td>Pulmonary Rehabilitation</td>
<td>1. Promote the value of pulmonary rehabilitation to commissioners and mobilise them to address inequalities in access.</td>
</tr>
<tr>
<td></td>
<td>2. Empower patients and their families living in London to ask for referral to pulmonary rehabilitation.</td>
</tr>
<tr>
<td>Responsible Respiratory Prescribing</td>
<td>1. Reduce the number of patients with newly diagnosed respiratory conditions who smoke by ensuring quit smoking advice and support is provided.</td>
</tr>
<tr>
<td></td>
<td>2. Increase number of patients with COPD who have significant symptoms being referred for pulmonary rehabilitation as an adjunct to drug therapy.</td>
</tr>
<tr>
<td></td>
<td>3. Reduce total spend on respiratory drugs across London.</td>
</tr>
<tr>
<td></td>
<td>4. Accept and change protocols to reflect the LRT’s sever responsible respiratory prescribing messages.</td>
</tr>
<tr>
<td></td>
<td>5. Patient safety – high potency inhaled steroids are widely used without awareness of potential harm.</td>
</tr>
<tr>
<td>Oxygen</td>
<td>1. Promote the protection of patients and the safe supply of oxygen at home.</td>
</tr>
<tr>
<td></td>
<td>2. To improve oxygen prescribing.</td>
</tr>
<tr>
<td></td>
<td>3. Improve the quality of HOS-AR services</td>
</tr>
<tr>
<td></td>
<td>4. Manage transition and subsequent oxygen provision.</td>
</tr>
<tr>
<td>Earlier Diagnosis</td>
<td>1. All Londoners who smoke (or have another risk factor for COPD) with breathlessness due to undiagnosed COPD should have timely access to a diagnosis at an appropriate stage of their disease where they could benefit from a healthcare intervention especially support with stopping smoking.</td>
</tr>
<tr>
<td></td>
<td>2. Physical and mental healthcare professionals should have the knowledge, attitudes and skills to diagnose COPD in the patients they see.</td>
</tr>
<tr>
<td></td>
<td>3. Quality spirometry should be performed by appropriately-trained individuals on quality assured equipment that can ideally produce a graphical record of the manoeuvre performed.</td>
</tr>
<tr>
<td>Living with COPD</td>
<td>1. Prevent avoidable mortality in people with COPD.</td>
</tr>
<tr>
<td></td>
<td>2. All Londoners diagnosed with COPD have appropriate, evidence-based and timely management of disabling symptoms (eg breathlessness and fear).</td>
</tr>
<tr>
<td></td>
<td>3. All patients with advanced COPD have discussed their treatment and care options including advance care planning and have undertaken a holistic needs assessment with a trained healthcare professional.</td>
</tr>
<tr>
<td></td>
<td>4. Develop healthcare professional attitudes and communication skills to ensure advance care planning occurs.</td>
</tr>
<tr>
<td></td>
<td>5. All carers of COPD sufferers feel supported and informed.</td>
</tr>
</tbody>
</table>
## Appendix 3 - LRT Presentations 2010-11

<table>
<thead>
<tr>
<th>Date</th>
<th>Meeting</th>
<th>LRT Representative</th>
</tr>
</thead>
<tbody>
<tr>
<td>04/10/2010</td>
<td>COPD Strategy Partnership Conference</td>
<td>All LRT</td>
</tr>
<tr>
<td>12/10/2010</td>
<td>LRT work presentation for NCL Cluster meeting</td>
<td>Louise Restrick 40 clinicians/commissioners mixed</td>
</tr>
<tr>
<td>24/10/2010</td>
<td>LRT overview pick and mix - Introduction to London LRT Programme</td>
<td>Louise Restrick</td>
</tr>
<tr>
<td>02/11/2010</td>
<td>COPD Strategy Partnership Conference</td>
<td>All LRT</td>
</tr>
<tr>
<td>01/12/2010</td>
<td>LRT Responsible Respiratory Prescribing - understanding respiratory spend and increasing value DH Symposium at BTS Scientific meeting 2010</td>
<td>Louise Restrick 200 people</td>
</tr>
<tr>
<td>25/01/2011</td>
<td>Westminster Forum presentation - Changing lifestyles and improving outcomes: reframing the way we think about smoking</td>
<td>Louise Restrick 70 people</td>
</tr>
<tr>
<td>24/01/2011</td>
<td>NPC Presentation - London's vision for its COPD population: Introducing the London COPD Programme</td>
<td>Vince Mak</td>
</tr>
<tr>
<td>14/02/2011</td>
<td>Presentation to Health Intelligence Network - Primary care intelligence: A GP perspective with a COPD focus</td>
<td>Noel Baxter</td>
</tr>
<tr>
<td>16/02/2011</td>
<td>LRT presentation for CSL GP and Commissioner network</td>
<td>Noel Baxter</td>
</tr>
<tr>
<td>18/02/2011</td>
<td>NHS London Clinical Senate presentation - Integrated care in COPD</td>
<td>Louise Restrick, Noel Baxter and Sam Prigmore 70 people</td>
</tr>
<tr>
<td>02/03/2011</td>
<td>BTS Presentation - Business Leadership for Respiratory Clinicians</td>
<td>Noel Baxter</td>
</tr>
<tr>
<td>07/03/2011</td>
<td>National Respiratory Leads Network Meeting Presentation - Shared learning, QUIPP and Home Oxygen</td>
<td>Craig Davidson, Louise Restrick and Noel Baxter 30 people</td>
</tr>
<tr>
<td>09/03/2011</td>
<td>LRT Integrated Care Workshop</td>
<td>All LRT 20 people</td>
</tr>
<tr>
<td>16/03/2011</td>
<td>Presentation to NHS Islington Community Pharmacist - Your role working with the LRT</td>
<td>Louise Restrick 40 community pharmacists</td>
</tr>
<tr>
<td></td>
<td>HOS London 2010 Presentation</td>
<td></td>
</tr>
<tr>
<td>08/04/2011</td>
<td>BLF Conference Presentation</td>
<td>Noel Baxter</td>
</tr>
<tr>
<td>18/04/2011</td>
<td>LRT Presentation at Breathe Easy Brent</td>
<td>Sasha Wilson</td>
</tr>
<tr>
<td>01/05/2011</td>
<td>IMPRESS Conference 2011 - The Big Squeeze: improving quality and reducing waste, where are the big opportunities in respiratory care</td>
<td>Louise Restrick 200 people</td>
</tr>
<tr>
<td>17/05/2011</td>
<td>LPP QIPP Meeting - Responsible Respiratory Prescribing</td>
<td>Vince Mak</td>
</tr>
<tr>
<td>24/05/2011</td>
<td>IMPRESS Conference 2011 - Using CQUINS to improve COPD care on discharge from acute trusts</td>
<td>Vince Mak</td>
</tr>
<tr>
<td>26/05/2011</td>
<td>Testing LRT messages with patients and carers at Launch of Haringey and Islington Breathe Easy Group</td>
<td>Louise Restrick 30 people</td>
</tr>
<tr>
<td>26/05/2011</td>
<td>Improving respiratory care for Haringey pharmacy team</td>
<td>Vince Mak</td>
</tr>
<tr>
<td>07/06/2011</td>
<td>COPD Mental Health Conference - Getting COPD Care and stop smoking interventions right for people with MH conditions</td>
<td>Louise Restrick 60 people</td>
</tr>
<tr>
<td>21/07/2011</td>
<td>NHS Islington Event - Commissioning for Quality Engagement (Responsible Respiratory Prescribing)</td>
<td>Louise Restrick 30 GPs</td>
</tr>
<tr>
<td>08/07/2011</td>
<td>IMPRESS presentation - starting a value framework for respiratory care</td>
<td>Louise Restrick 15 people</td>
</tr>
<tr>
<td>12/07/2011</td>
<td>London NPC Asthma Event</td>
<td>Vince Mak</td>
</tr>
<tr>
<td>14/07/2011</td>
<td>Improving respiratory care for NHS Haringey pharmacy team</td>
<td>Vince Mak</td>
</tr>
<tr>
<td>19/07/2011</td>
<td>LRT Presentation for South London HIEC</td>
<td>Sam Prigmore 30 people</td>
</tr>
<tr>
<td>20/07/2011</td>
<td>LHOCLAHRC - Aligning quality improvement to population health: tobacco control and COPD</td>
<td>Noel Baxter</td>
</tr>
<tr>
<td>13/07/2011</td>
<td>LRT Presentation to BLF staff - LRT and BLF working together</td>
<td>Louise Restrick &amp; Noel Baxter</td>
</tr>
</tbody>
</table>
## Appendix 4 - LRT Workstream messages

<table>
<thead>
<tr>
<th>Workstream</th>
<th>Key messages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop Smoking</td>
<td>Stopping smoking is <strong>the</strong> treatment for COPD.</td>
</tr>
<tr>
<td>Responsible Respiratory</td>
<td>1. Respiratory Medications are expensive.</td>
</tr>
<tr>
<td>Prescribing</td>
<td><strong>Doing the right thing</strong></td>
</tr>
<tr>
<td></td>
<td>2. When prescribing any new respiratory inhaler, ensure that the patients has undergone NICE-recommended support to stop smoking.</td>
</tr>
<tr>
<td></td>
<td>3. Pulmonary rehabilitation is a cost effective alternative to stepping up to triple therapy and should be the preferred option if available and the patient is suitable.</td>
</tr>
<tr>
<td></td>
<td><strong>Doing things right</strong></td>
</tr>
<tr>
<td></td>
<td>4. When prescribing any inhaled medication, ensure that the patient has undergone patient centred education about the disease and inhaler technique training by a competent trainer.</td>
</tr>
<tr>
<td></td>
<td>5. When prescribing an MDI (except salbutamol), ensure that a spacer is also prescribed and will be used.</td>
</tr>
<tr>
<td></td>
<td>6. When prescribing high does inhaled corticosteroids (&gt;1000ug), ensure that the patient is issued an inhaled steroid safety card.</td>
</tr>
<tr>
<td></td>
<td>7. No Prednisolone EC prescribing without good clinical reason.</td>
</tr>
<tr>
<td>Responsible Prescribing of</td>
<td>1. Oxygen is for treating hypoxia not breathlessness, so have and use an oximeter.</td>
</tr>
<tr>
<td>Oxygen</td>
<td>2. A specialist team for oxygen assessment should be part of a commissioned integrated respiratory service. This will improve effectiveness of oxygen therapy, reduce waste and reduce costs.</td>
</tr>
<tr>
<td></td>
<td>3. Protect patients who are at risk from excessive oxygen. Identify at risk patients and use a combination of limiting oxygen to 28% in ambulance transit (universal precautions), O2 alert cards and/or patient specific protocols (PSPs) and report adverse events through the local SUI.</td>
</tr>
</tbody>
</table>

The LRT case for change document also promotes the above messages which can be found on the LRT website at [http://www.london.nhs.uk/what-we-do/our-current-projects/london-respiratory-team](http://www.london.nhs.uk/what-we-do/our-current-projects/london-respiratory-team).
### Appendix 5 - COPD Profiles Spine Chart (excerpt)

#### COPD PATHWAY SUMMARY

The spine chart below shows how COPD data for this local authority compares with London and the rest of England. Your local authority’s results for each indicator are displayed as a circle. Blank cells indicate that data are not currently collected at a national level and that it may be important to measure these parameters locally. The average rate for England is shown by the red line in the centre of the chart. The range of results for all local authorities in England is shown as a grey bar. A red circle means that data for this local authority is significantly worse than the England average. A green circle shows that data for this local authority is significantly better than the England average; however, this may still indicate an important health problem.

#### Key:
- **Red circle**: Significantly better than England average
- **Green circle**: Not significantly different from England average
- **Black circle**: Significantly worse than England average
- **Grey circle**: No significance can be calculated

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Local Number</th>
<th>Local Rate</th>
<th>Lon Avg</th>
<th>Eng Avg</th>
<th>Eng Best</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults who smoke</td>
<td>n/a</td>
<td>30.2</td>
<td>20.8</td>
<td>22.7</td>
<td>35.2</td>
</tr>
<tr>
<td>Population aged 35 yrs and over</td>
<td>66,647</td>
<td>37.6</td>
<td>49.6</td>
<td>56.2</td>
<td>37.8</td>
</tr>
<tr>
<td>Population aged 75 yrs and over</td>
<td>7,001</td>
<td>3.4</td>
<td>5.6</td>
<td>7.8</td>
<td>10.0</td>
</tr>
<tr>
<td>COPD prevalence, recorded*</td>
<td>2,550</td>
<td>1.2</td>
<td>1.0</td>
<td>1.8</td>
<td>3.3</td>
</tr>
<tr>
<td>COPD prevalence, modelled</td>
<td>6,905</td>
<td>3.6</td>
<td>3.9</td>
<td>3.6</td>
<td>6.1</td>
</tr>
<tr>
<td>COPD prevalence, modelled &amp; recorded*</td>
<td>3.6</td>
<td>3.1</td>
<td>3.9</td>
<td>2.4</td>
<td>6.2</td>
</tr>
<tr>
<td>Asthma prevalence, recorded*</td>
<td>11,934</td>
<td>4.7</td>
<td>4.8</td>
<td>5.9</td>
<td>7.1</td>
</tr>
<tr>
<td>COPD diagnosis confirmed by post bronchodilator spirometry*</td>
<td>413</td>
<td>86.6</td>
<td>89.4</td>
<td>90.3</td>
<td>82.8</td>
</tr>
<tr>
<td>Exception rate for COPD indicators*</td>
<td>1,103</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.2</td>
</tr>
<tr>
<td>Patients with long-term conditions with smoking status recorded*</td>
<td>36,024</td>
<td>96.6</td>
<td>95.3</td>
<td>95.2</td>
<td>93.0</td>
</tr>
<tr>
<td>Patients with long-term conditions offered stop smoking advice*</td>
<td>6,209</td>
<td>91.8</td>
<td>92.7</td>
<td>92.8</td>
<td>88.7</td>
</tr>
<tr>
<td>Exception rate for smoking indicators*</td>
<td>356</td>
<td>0.8</td>
<td>0.8</td>
<td>0.7</td>
<td>1.4</td>
</tr>
<tr>
<td>Successful smoking quitters at 4 weeks, CO validated*</td>
<td>2,031</td>
<td>1,110</td>
<td>500</td>
<td>614</td>
<td>51</td>
</tr>
<tr>
<td>Prescribed nicotine replacement therapy (NRT)*</td>
<td>2,910</td>
<td>1,283</td>
<td>2,184</td>
<td>2,997</td>
<td>143</td>
</tr>
<tr>
<td>Prescribed varenicline*</td>
<td>753</td>
<td>322</td>
<td>984</td>
<td>1,704</td>
<td>276</td>
</tr>
<tr>
<td>Eligible COPD patients offered pulmonary rehabilitation</td>
<td>2,315</td>
<td>66.1</td>
<td>89.6</td>
<td>89.9</td>
<td>80.7</td>
</tr>
<tr>
<td>COPD patients with medical review in last 15 months*</td>
<td>4,721</td>
<td>6.6</td>
<td>6.7</td>
<td>6.9</td>
<td>9.6</td>
</tr>
<tr>
<td>Emergency admissions for COPD, overall*</td>
<td>609</td>
<td>4.9</td>
<td>1.9</td>
<td>1.8</td>
<td>4.9</td>
</tr>
<tr>
<td>Emergency admissions for COPD, COPD registered patients*</td>
<td>406</td>
<td>15.0</td>
<td>10.6</td>
<td>12.5</td>
<td>17.9</td>
</tr>
<tr>
<td>Emergency readmissions within 28 days, overall*</td>
<td>236</td>
<td>49.5</td>
<td>41.8</td>
<td>39.0</td>
<td>52.2</td>
</tr>
<tr>
<td>Emergency readmissions within 90 days, COPD admitted patients</td>
<td>101</td>
<td>49.5</td>
<td>41.8</td>
<td>39.0</td>
<td>52.2</td>
</tr>
<tr>
<td>Deaths from COPD, all ages</td>
<td>210</td>
<td>41.3</td>
<td>25.4</td>
<td>26.2</td>
<td>48.7</td>
</tr>
<tr>
<td>Deaths from COPD, &lt;75yrs</td>
<td>68</td>
<td>18.4</td>
<td>11.4</td>
<td>11.8</td>
<td>27.5</td>
</tr>
<tr>
<td>Years of life lost due to mortality from COPD</td>
<td>63</td>
<td>17.4</td>
<td>9.8</td>
<td>10.5</td>
<td>26.0</td>
</tr>
<tr>
<td>Deaths with any mention of respiratory disease as cause of death</td>
<td>1,208</td>
<td>30.7</td>
<td>35.1</td>
<td>39.3</td>
<td>41.1</td>
</tr>
<tr>
<td>Respiratory deaths at own residence</td>
<td>55</td>
<td>12.8</td>
<td>12.0</td>
<td>13.7</td>
<td>7.5</td>
</tr>
<tr>
<td>Cost of oxygen prescribing</td>
<td>92</td>
<td>50.0</td>
<td>40.0</td>
<td>40.0</td>
<td>50.0</td>
</tr>
<tr>
<td>Severe COPD exacerbations</td>
<td>2,722</td>
<td>9.9</td>
<td>10.9</td>
<td>13.1</td>
<td>24.5</td>
</tr>
<tr>
<td>Secondary care spend on obstructive airways disease*</td>
<td>840,000</td>
<td>3.1</td>
<td>4.1</td>
<td>3.4</td>
<td>13.8</td>
</tr>
<tr>
<td>Secondary care spend on obstructive airways disease*</td>
<td>1,876,000</td>
<td>6.8</td>
<td>6.8</td>
<td>7.6</td>
<td>10.4</td>
</tr>
</tbody>
</table>

For a complete copy and a full set of the London COPD profiles can be found here - [http://www.londonhp.nhs.uk/publications/copd/copd-profiles/](http://www.londonhp.nhs.uk/publications/copd/copd-profiles/)
Appendix 6 - LRT value pyramid

COPD ‘Value’ Pyramid
What we know so far.... Cost/QALY

- **Triple Therapy**: £35,000, £187,000/QALY
- **LABA**: £8,000/QALY
- **Tiotropium**: £7,000/QALY
- **Pulmonary Rehabilitation**: £2,000-8,000/QALY
- **Stop Smoking Support with pharmacotherapy**: £2,000/QALY
- **Flu vaccination**: £1,000/QALY in “at risk” population

London Respiratory Team
Improving the experience of all Londoners with COPD and minimising the impact of the disease
Appendix 7 - LRT case for change

London Respiratory Team

Case for change in London respiratory services using a right care approach

August 2011

INTRODUCTION

This is a case for change document with a focus on right care - getting best value from the respiratory programme spend. It is written by the respiratory clinical leads for London, who report to NHS London and the DH Respiratory team. We have decided to focus mainly on COPD because we believe this is the place to start to improve the value gained from NHS spend. However, many issues cannot be neatly disentangled from other chronic and smoking-related lung disease and therefore this case for change and call to action also covers asthma and lung cancer. One of the key themes is asking clinicians and commissioners to debate where, WITHIN THE RESPIRATORY BUDGET, there could be improvements and decommissioning in order to release funds to commission cost effective but poorly available services such as pulmonary rehabilitation and stop smoking support for highly dependent smokers.

The London Respiratory Team (LRT) has detailed workstreams that will be producing guidance on how to make change happen. Those will complement, but not duplicate, work expected shortly from the DH on an outcomes strategy, and a commissioning pack including guidance on models, costing tools and monitoring.

The case for change

In London the spend on the respiratory programme budget increased by an average of 21% between 2009/10 and 2009/10 (range -7% to +64% by PCT). The spend including prescribing but excluding lung cancer and UMS/PMS costs for 2009/10 was £645 million or an average of £17.6m per patient. In addition, the cost of inpatient care for lung cancer in 2009/10 for London was just under £15 million whilst the cost for COPD/patient care was just over £500k. There is scope to extract better value from this cost investment and to limit the speed of growth.

Getting the balance of investment right

Nationally, the NHS spends over £2.7 billion a year on treating smoking related illness, but less than £1.00 million on smoking cessation (DH England). That is, only 1/20th the spend on stop smoking. In London, up to one in five of all deaths (depending on borough) is due to smoking and nationally 36% of all respiratory deaths for respiratory diseases in 2009 were attributable to smoking (and 29% of all cancer deaths). Yet extremely cost effective interventions that can be used in hospitals and in the community to reduce that mortality, improve health and prevent admissions across general medicine and surgery are not used consistently.

The respiratory problem in London

COPD – too many too late

We spend over £100m on COPD per year or £2.6m per patient. Depending on borough, between a third and nearly two-thirds of that cost is secondary care because many of the people with COPD on our registers are moderately or severely ill and breathless and prone to acute illness that may require hospital admission. Inpatient costs averaged £5000 per capita across London in 2010 with significant variation. In 2009/10 there was an average admission rate of 1.9 per 1000 practice population; the highest was in Tower Hamlets at 4.9. In 01/02/03/04/10 COPD was the second highest cause of emergency admission. In 2008-09 the total number of bed days for emergency hospital admissions for COPD as a primary diagnosis was 91,140. Average length of stay in London is 0.7 days ranging from 8.6 in Tower Hamlets to 4.9 in Hillingdon. Nationally 12% of patients admitted to hospital with COPD die within 3 months and a quarter die within a year of admission. We estimate as many as a third of those with a first admission for COPD are only diagnosed as a result of that admission. We also know that between 35 and 55% of people with COPD still smoke. There is therefore a need to focus on both those at high risk and also to reduce the populations’ risk of poor outcomes by shifting their risk profile curve to the left as in CVD.

For a full copy of the LRT case for change please visit the LRT website at http://www.london.nhs.uk/what-we-do/our-current-projects/london-respiratory-team
Tiotropium versus Salmeterol in COPD

TO THE EDITOR: The article on the Prevention of Exacerbations with Tiotropium in COPD (PFT-COPD) trial (ClinicalTrials.gov number, NCT00056330) by Vogelmeier et al. (March 24 issue) provides valuable information on choosing between inhaled therapies to prevent exacerbations in moderate-to-severe chronic obstructive pulmonary disease (COPD). However, the high prevalence of smoking among subjects in the trial (46% of the subjects were current smokers) highlights the continued importance of smoking cessation. Stopping smoking with pharmacotherapy is the only treatment, other than long-term oxygen therapy, proved to reduce mortality in COPD, and it has also been shown to be a treatment with a much higher value than inhaled therapy, when outcome is considered relative to cost. It is remarkable, given the high continuing smoking prevalence among patients with COPD exemplified by this study, that the effect of smoking-cessation interventions on morbidity still awaits a trial. The study that is needed is an evaluation of smoking-cessation interventions involving effective outcome measures of morbidity as in the PFT-COPD trial. Meanwhile, one of the outcome measures we, as clinicians, should be judged on is the reduction of the prevalence of smoking among our patients with COPD.

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No potential conflict of interest refers to this letter was reported.

Appendix 8 - New England Journal of Medicine
(Tiotropium versus Salmeterol in COPD) continued

CORRESPONDENCE

Tiotropium is a serious methodologic issue that limits the interpretation of the results. During the run-in period, anticholinergic drugs and long-acting β2-agonists, but not short-acting β2-agonists, were discontinued. Fifty-two percent of the patients in the tiotropium group and 59% of the patients in the salmeterol group were also receiving a short-acting β2-agonist. Thus, the comparison seems unfair, since half the tiotropium group received two bronchodilators with two different mechanisms of action, but all the patients in the salmeterol group received only one class of bronchodilators. Did the superiority of tiotropium remain in the subgroup of patients who did not use short-acting β2-agonists?

Celia Lloret-Linares, M.D.
Jean-François Bergmann, M.D.
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No potential conflict of interest relevant to this letter was reported.

TO THE EDITOR: I do not think that the study comparing salmeterol with tiotropium treatment of COPD will result in much change in clinical practice, since the greatest effect was seen in patients with severe disease. In daily practice, such patients would most likely be receiving triple therapy of tiotropium, inhaled glucocorticoids, and long-acting β2-agonists, rendering the question of which bronchodilator is better to secondary importance. The pertinent question would be which long-acting bronchodilator a patient should receive first; this could have been answered by limiting recruitment to patients with Global Initiative for Chronic Obstructive Lung Disease (GOLD) stage I and II disease only.

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No potential conflict of interest relevant to this letter was reported.

THE AUTHORS RESPOND: We agree with Resnick et al. that evaluating the clinical efficacy of smoking cessation with the use of solid patient-relevant outcomes, such as exacerbations, could complement the already existing body of evidence in support of such an intervention.

In response to Lloret-Linares and Bergmann: in our trial, any previous use of an anticholinergic drug or a β2-agonist had to be discontinued at randomization, and all patients were offered albuterol as rescue medication.1 We are not aware of any published data suggesting that the efficacy of a long-acting bronchodilator to prevent exacerbations may be affected by the addition of a short-acting bronchodilator agent given on an as-needed basis. International COPD guidelines4 do not provide guidance on the choice of rescue medication. Albuterol has been the standard rescue medication in almost all COPD trials, irrespective of the mechanism of action of the regular long-acting bronchodilator under investigation.4

Regarding the comment by Schembri: the majority of patients included in our study had moderate (stage II) or severe (stage III) COPD according to the GOLD classification.2 Patients in each of these subgroups benefited similarly from tiotropium treatment (hazard ratios, 0.68 and 0.66, respectively, in favor of tiotropium vs. salmeterol).
Appendix 8 - New England Journal of Medicine
(Tiotropium versus Salmeterol in COPD) continued

CORRESPONDENCE

Tiothropium and Salmeterol in COPD: Does It Matter?

Theodore D. Karp, MD, MSc
Division of Pulmonary and Critical Care Medicine
Univerity of Medicine and Dentistry of New Jersey
Newark, NJ

The authors reply: We agree with Routti et al that evaluating the clinical efficacy of smoking cessation with the use of solid patient-relevant outcomes, such as exacerbations, could complement the already existing body of evidence in support of such an intervention.

In response to Lloret-Linares and Bergmann, in our trial, any previous use of an anticholinergic drug or a beta-agonist had to be discontinued at randomization, and all patients were offered albuterol as rescue medication only. We are not aware of any published data suggesting that the efficacy of a long-acting bronchodilator to prevent exacerbations may be affected by the addition of a short-acting bronchodilator agent given on an as-needed basis. International COPD guidelines do not provide guidance on the choice of rescue medication. Albuterol has been the standard rescue medication in almost all COPD trials, irrespective of the mechanism of action of the regular long-acting bronchodilator under investigation.3,4

Regarding the comment by Schembri: the majority of patients included in our study had moderate to severe (stage II) COPD according to the GOLD classification.3 Patients in each of these subgroups benefited similarly from tiotropium treatment (hazard ratios, 0.88 and 0.86, respectively, in favor of tiotropium vs. salmeterol).
Unwarranted variation in chronic obstructive pulmonary disease care: provision of pulmonary rehabilitation for Londoners

Buxton M, Prigmore S, Barnes K*, Coombes A, Williams S, Restrick L. NHS London Respiratory Team (LRT), London SW1, NECLES*

Introduction
Pulmonary Rehabilitation (PR) is recognised as an evidence-based high value component of care for patients with chronic obstructive pulmonary disease (COPD). However there is no national database of available or delivered PR services. The aim of this study was to identify and characterise PR services and service variation for a 7.75 million population in one Strategic Health Authority with 31 Primary Care Trusts (PCTs).

Methods
During Dec 2010 - May 2011 PR leads in each PCT were identified and a telephone inter-view conducted using 52 clinical and service related questions including estimated annual referrals, rolling/short model, sessions/week, PR duration, assessment (duration, exercise capacity (incremental Shuttle Walk Test (ISWT), 6 Minute Walk Test (6MWT)), quality of life (QOL) measures), psychologist involvement, completion measures and availability of pre PR maintenance programmes. Provision of PR was compared to Quality and Outcomes Framework (QOF) expected and actual prevalence of COPD.

Results 1 – Service Variation
Responses were obtained for all PCTs in London (n=31). Some PCTs had 2 service providers giving a total of 32 PR providers:
- 63% PCTs had no PR provision
- 1/4 programmes were run by 32 PR providers
- Provision of PR was not related to prevalence as measured by QoF
- Annual referral rates ranged from <50 to >700 patients/service
- Time from referral to assessment varied from 4 weeks to 1 year
- 15/26 PCTs offered maintenance programmes post PR

Results 2 – Programme Variation
Design of the PR programmes (n=74) varied significantly:
- 51 were rolling, 1 semi-rolling and 22 were conert programmes
- Duration 6-8 weeks
- 1 service provider delivered 1 session/week with the rest providing 2 sessions/week
- 15/32 (47%) of providers had dedicated Psychology input

Results 3 – Assessment Variation
The assessment process varied greatly across the SHA:
- Providers routinely allocated between 0.5 and 2.0 hours/patient
- Initial exercise capacity was measured by a combination of ISWT or 6 MWT
- 21/32 (66%) did not follow accepted guidance on performing the ISWT or 6MWT
- The number of questionnaires/patient used ranged between one and five (see table below)

Results 4 – Completion variation
Across London, there is no standardised definition of completion:
- Completion rates ranged from less than 30% to greater than 80% of the original referrals as defined by the service provider (Figure 2).

Conclusion
Reducing unwarranted variation in assessment process, programme styles and completion definition and rates using standardised approaches to delivery and measurement could release capacity for unmet need in London. These findings have led to creation of 5 draft LRT messages:
1. Increase demand using positive message “Breathe better, feel good, do more”
2. Agree pan-London definitions & standards to enable comparision
3. Increase numbers of breathless patients benefiting from PR by increasing supply and demand
4. Rater people on optimal not maximal therapy: consider offering PR before triple therapy
5. PR success depend on integration with a COPD pathway sharing responsibility for achievement of outcomes.
A Survey of Home Oxygen provision across London
AC Davidson, S Williams, N Baxter, E Morris, L Restrick. NHS London Respiratory Team (LRT), London SW1.

Introduction
London will change from 2 suppliers to one when the new oxygen contract starts in 2012. In preparing for this the London Respiratory Team undertook a survey of current oxygen provision at the beginning of 2011.

Methods
A Questionnaire was sent electronically to 100 oxygen leads in primary and secondary care (identified through gas company lists), PCT nominated leads and prescribing advisors and community respiratory nurses spread across London. General service related questions were asked including knowledge of local providers, relevant contacts and interaction with gas company managers. Further specific clinical questions were also asked including whether Long Term Oxygen Therapy (LTOT) was administered by a specialist team, about follow up at hospital discharge, monitoring of LTOT patients and policies including removal of oxygen and protecting patients (for eg. Patient Specific Protocols -PSF’s and oxygen alert cards)

Results
There were 60 returns to the questionnaire. The main findings were:

Map of responses to oxygen questionnaire

1. LTOT was initiated in hospitals in 75% of cases, most commonly during an acute admission. Despite this, hospital respondents did not apparently arrange follow up in over 35% of patients. Furthermore, 70% of community teams reported "not at all" and "only sometimes" being informed about new starters either by GP’s or hospital staff.

2. Less than 50% of the community teams took action when concordance reports showed variance (under or overuse) from prescribed treatment.

3. There was a lack of ability to detect hypoxic patients as more than 20% of community healthcare sites did not have access to an oximeter.

4. Fire safety officers are rarely advised about the persistent smoker (only 16% of respondents had ever done so) despite the potential risk to patients, their families and the general public.

5. Local policies with regard to the persistent smoker were rare (only 35% of services). 3 services reported LTOT denied to smokers and one unit employed exhaled carbon monoxide measurement to monitor smoking status. The survey did not enquire about what smoking cessation treatments were offered.

6. When asked about protecting patients from the danger of hypercarbia, a variety of methods are used but inconsistently. When asked what policy respondents favoured, universal precaution was most favoured (as promoted by ambulance guidelines) was most popular (60%) whilst 20% favoured oxygen cards and 20% favoured PSF’s.

7. Specific local policies regarding removing oxygen when no longer indicated or used is rare (< 25%). This, coupled with inadequate follow up of patients started on oxygen, suggests significant waste.

8. Respondents welcomed guidance on oxygen removal, contact monitoring, assessment for ambulatory oxygen and training in arterial or capillary blood gas measurement.

Conclusion
1. We identified significant problems in healthcare coordination, in protecting the public and patients in removing oxygen when no longer indicated.

2. Integration between the hospital and community teams is lacking and, in many cases, hospital based teams could support their community colleagues who are often inadequately equipped, trained or supported.

3. Much needs to be done to prepare for safe mobilisation to the new contract and subsequently to contract manage the service if the intended benefits to patients can be realised and waste reduced.

4. "Investment to save" by commissioners is required.
Appendix 11 - LRT Factsheet Stop Smoking: The treatment for COPD

Stop Smoking: The treatment for people with COPD

Smoking, more than any other single factor continues to contribute to the growing health inequality between the most and least deprived in the UK as measured by premature death.¹

The NHS spends over £2.7 billion annually on treating smoking related illness, but less than £150 million on smoking cessation.²

People benefit from stopping smoking at all stages of COPD. Consider keeping a version of this graph on your desktop to support the advice you give.³

Cost effective therapy that lasts... A ‘currency’ that you will see increasingly is the Quality Adjusted Life Year (QALY). This tells us how much it costs for any given therapy to provide a year of good quality life. NICE considers a good value intervention to fall below £20,000 per QALY. Evidence-based Stop Smoking therapy in COPD costs £2,092 per QALY and what is more the effect lasts for decades.⁴

Doing the right things right

In COPD, evidence-based stop smoking treatment consists of 90 minutes of intensive support + pharmacotherapy i.e. NRT, Bupropion, and Varenicline.⁵

Improving the experience of Londoners with COPD and minimising the impact of the disease
# Appendix 12 - COPD Discharge Bundle CQUIN

<table>
<thead>
<tr>
<th>Local contract ref.</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Goal number</td>
<td></td>
</tr>
<tr>
<td>Goal name</td>
<td>COPD Discharge Bundle</td>
</tr>
<tr>
<td>Indicator number</td>
<td></td>
</tr>
<tr>
<td>Indicator name</td>
<td>CQUIN scheme available</td>
</tr>
<tr>
<td>Indicator weighting</td>
<td></td>
</tr>
<tr>
<td>Description of indicator</td>
<td>COPD discharge bundle: All patients admitted with a COPD exacerbation should be discharged with a completed care bundle.</td>
</tr>
<tr>
<td>Numerator</td>
<td>Number of patients admitted for more than 48 hours with code: J44.0 Chronic obstructive pulmonary disease with acute lower respiratory infection OR J44.1 Chronic obstructive pulmonary disease with acute exacerbation, unspecified Coded in first or second position and are discharged with a completed care bundle</td>
</tr>
<tr>
<td>Denominator</td>
<td>Number of patients admitted for more than 48 hours with ICD10 code J44.0 or J44.1 in first and second positions (NOTE that if in second position, the first position needs to be a respiratory code)</td>
</tr>
<tr>
<td>Rationale for inclusion</td>
<td>The bundle is an NIHR CLAHRC for NW London development and has been well-received in first year of implementation in 6 London trusts in 2011/12 and is being taken up in a number of regions in 2012/13. SW Cluster feedback “Benefit to patients as has driven up quality and focused Commissioners minds on procuring community respiratory services.” HSJ Award finalist. There is now a website set up by the CLAHRC to offer support <a href="http://www.copdcarebundle.com">www.copdcarebundle.com</a> and the London Respiratory Team offers support for implementation. The aim is to improve the care of patients admitted to hospital with an exacerbation of COPD, improve their understanding of the disease, reduce future reliance on secondary care, and reduce chances of further admissions. Its use should ensure that key evidence-based interventions that are known to improve the management of patients with COPD have been implemented or at least considered during a patient’s admission. This should be for patients admitted to both respiratory wards and also, importantly, for people admitted with a COPD exacerbation to non-respiratory wards. These include (i) referral to smoking cessation service if a current smoker; (ii) Assessment of suitability and/or enrolment into a pulmonary rehabilitation programme; (iii) have appropriate educations, written information, self management plans and rescue packs for future exacerbations; (iv) ensure that they understand their medications and have demonstrated good inhaler technique whilst on the wards; (v) ensure that they have appropriate follow up once discharged from hospital. It should be personalised to the individual - not all components are needed for everyone. In this way it has the power to change clinical behaviour and achieve sustainable change. A stretch in future years might be to add a 6th: advance care plan agreed and communicated within 24 hours to A&amp;E and GP.</td>
</tr>
<tr>
<td>Frequency of data collection</td>
<td>Twice yearly</td>
</tr>
<tr>
<td>Organisation responsible for data collection</td>
<td>Acute trust</td>
</tr>
<tr>
<td>Frequency of reporting to commissioner</td>
<td>Twice yearly</td>
</tr>
<tr>
<td>Baseline period/date</td>
<td>2012/13</td>
</tr>
<tr>
<td>Baseline value</td>
<td>Zero</td>
</tr>
<tr>
<td>Final indicator period/date (where applicable)</td>
<td>Year one: 2012/13 Year two 2013/14 for new starters.</td>
</tr>
<tr>
<td>Final indicator value (payment threshold)</td>
<td>75% in year one Year two 95% (NOTE - 95% is a stretch - it means that there has to be an extension beyond respiratory wards and therefore is likely to need organisational change)</td>
</tr>
<tr>
<td>Rules for calculation of payment due at year-end</td>
<td>If yes, please enter details in tables below.</td>
</tr>
<tr>
<td>Are there rules for any agreed in-year milestones that result in payment?</td>
<td>No</td>
</tr>
<tr>
<td>Are there any rules for partial achievement of the final value?</td>
<td>No</td>
</tr>
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## Milestones (only complete if the indicator has in-year milestones)

<table>
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<th>Date/period milestone relates to</th>
<th>Rules for achievement of milestones</th>
<th>Date milestone to be reported</th>
<th>Milestone weighting (% of CQUIN scheme available)</th>
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## Rules for partial achievement at year-end (only complete if the indicator has rules for partial achievement at year-end)

<table>
<thead>
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<th>Target</th>
<th>% of CQUIN scheme available</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
</tr>
<tr>
<td>Threshold 3</td>
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<tr>
<td>Threshold 5</td>
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