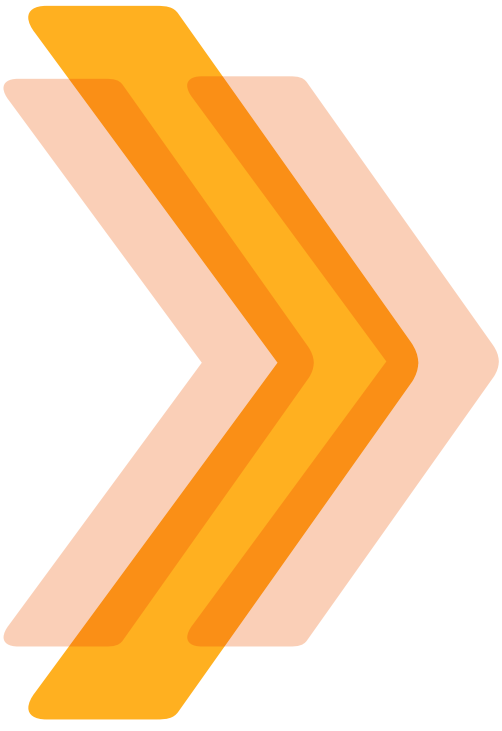
The King's Fund

Ideas that change health care

CASE STUDY

Whittington respiratory service



October 2014

Specialists in out-of-hospital settings

As part of the drive to keep patients out of hospital and better integrate services across settings, consultants are starting to develop new models of care that link secondary, primary, community and social care professionals.

This case study is one of six, which form part of a project undertaken by The King's Fund to investigate the different ways in which consultants are working beyond their traditional boundaries. The King's Fund's staff reviewed relevant documentation and interviewed staff to help identify the key characteristics of this new way of working, explore the challenges in establishing services of this type and understand what benefit they could bring for patients and the NHS.

The other five case studies are:

- Portsmouth and South East Hampshire diabetes service
- Leeds interface geriatrician service
- Imperial child health general practice hubs
- Sunderland dermatology and minor surgery service
- Haywood rhematology centre.

Further details on the other study sites can be found at: **www.kingsfund.org.uk/specialistscasestudies**

For an overview of the project, including key strategies for out-of-hospital working, the challenges to developing these services and the benefits for patients and the NHS please go to: **www.kingsfund.org.uk/specialists**

Background

Respiratory medicine involves the care of patients with diseases of the lungs and the rest of the respiratory system. The most common conditions are asthma and chronic obstructive pulmonary disease (COPD), which affect more than six million people in England (British Lung Foundation 2014; Right Care Programme 2012). COPD is used to describe a number of conditions, including emphysema and chronic bronchitis. More than 23,000 people die from COPD each year and it is the second most common cause of unplanned hospital admissions in England. In 10 per cent of these admissions, the diagnosis of COPD only occurs once in hospital (Right Care Programme 2012).

Overview

The respiratory service is based at Whittington Health NHS Trust and provides acute services and community health services to a population of approximately 460,000 people in Haringey and Islington CCGs. Whittington Health is an integrated care organisation comprised of three former NHS organisations: The Whittington Hospital, Islington Community Services and Haringey Community Services.

The service comprises a specialist outpatient respiratory clinic based at Whittington Hospital, a 21-bed acute inpatient ward including a 4-bed high-dependency unit, and the Whittington Integrated Community Respiratory (CORE) team, which supports patients in their homes following discharge from hospital or referral from GPs. The CORE team is led by two integrated respiratory consultants sharing four programmed activities a week and is staffed by respiratory nurse specialists, physiotherapists, clinical psychologists, a stop smoking advisor and an integrated respiratory specialist registrar. The team also works with 36 GP practices in Islington to provide education, training and support to patients in the community. The service manages 4,500 attendances and treats 1,400 new patients each year.

The multidisciplinary CORE team has three arms: a hospital-based team to support patients on the ward and in the community following discharge; and the Haringey-based and Islington-based teams, which both support patients on the wards and accept patient referrals from GPs to provide short-term support for up to six weeks or ongoing case management. Every six weeks, all three arms of the CORE team meet together to review cases, reflect on practice and undertake training.

The respiratory department provides a number other services in hospital and in the community, working across pathways of care.

- **Post-discharge support** for patients following an admission to hospital or an acute exacerbation of COPD in the community.

- **Ongoing case management** for vulnerable patients to develop positive health behaviours and self-management skills while also addressing anxiety or depression and social issues. Patients have access to telephone support and home visits from a named key worker and consultant while remaining under the care of their GP and can be referred directly to hospital if their condition deteriorates.

- **Pulmonary rehabilitation group programme:** patient education and exercise classes run by a physiotherapist with support from a specialist respiratory psychologist.

- **Acute COPD exacerbation pathway** supporting patients in their homes with rapid access to the CORE team to prevent emergency hospital admissions.

- **Home oxygen service**

- **Long-term exercise classes** supporting breathless COPD patients in the community following pulmonary rehabilitation classes.

- **'Sing for your lungs' groups**

- **Stop smoking service:** a comprehensive set of interventions providing general stop smoking advice and treatment and specialist advice and support for housebound COPD patients.

Islington CCG and Haringey CCG fund acute respiratory services provided by the Whittington team through a PbR tariff. The integrated consultant role is funded by Islington CCG, and the CORE team is funded through the community service's block contract. Islington CCG also commission Whittington Health to provide the home oxygen service, pulmonary rehabilitation classes and long-term exercise classes. The public health department in Islington and Camden fund the stop smoking service.

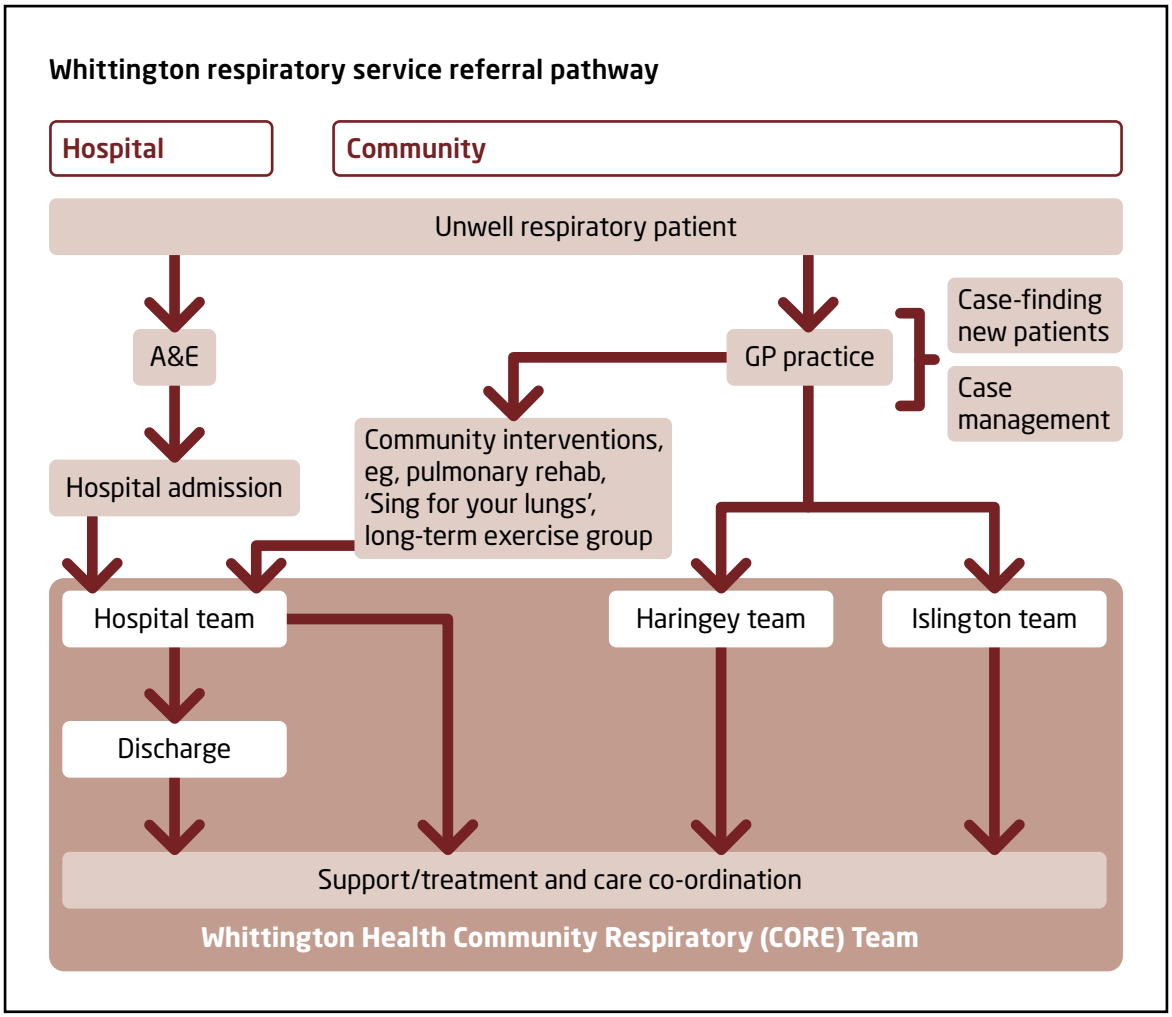
The service has developed over the past decade, with the first pilot of a supported discharge scheme in 2001 and pulmonary rehabilitation classes in 2003. These interventions were piloted, evaluated and refined or withdrawn based on their effectiveness. The service subsequently evolved around the CORE community team. It has cultivated joint initiatives and workshops with local palliative care and hospice teams to share best practice on end-of-life care for people with respiratory conditions, and has worked with the local ambulance service to incorporate patient-specific protocols for oxygen therapy during transportation by ambulance.

The establishment of the CORE team was driven by data showing that emergency admissions for COPD in Islington were significantly higher than expected, and that a third of patients admitted to hospital for the first time with an acute exacerbation of COPD had not previously been diagnosed in the community (Bastin *et al* 2010). Also, an audit of COPD services conducted within Islington in 2008 found that case-finding, diagnosis and management of COPD needed to be improved (**NHS Islington 2010**).

The level of integration exhibited by the Whittington respiratory team can be found in other localities. However, it is not commonplace among respiratory services in England, which often involve separate teams working with patients in hospital and in the community.

Referral pathway

Patients enter the service through two main routes, either a hospital admission onto the inpatient ward or through their GP or practice nurse referring them into the appropriate community team. Patients admitted to hospital are treated by consultants and then referred to one of the locality-based CORE teams or the hospital arm of the CORE team.



Those admitted with an acute COPD exacerbation receive the COPD discharge bundle. Incentivised through a CQUIN (Commissioning for Quality and Innovation) payment, the 'bundle' is a set of evidence-based interventions which should be delivered to all patients on discharge from hospital following an acute exacerbation. They include smoking cessation advice and treatment, an assessment for pulmonary rehabilitation classes, self-management support, a review of inhaler use and follow-up by a respiratory specialist within one month of discharge.

Complex patients may also be placed onto the supported 'enhanced recovery' pathway, which seeks to diagnose and treat multi-morbid patients, working with other specialties as needed, bringing in key workers in social care and mental health as well as the GP. Prior to discharge, a multidisciplinary case conference is held with the patient and their family to review medications and smoking cessation plans (where appropriate) and to develop an action plan to avoid further admissions. The respiratory nurse specialist from the hospital team attends the case conference and will visit the patient following discharge to monitor progress and provide additional treatment in the community.

Patients in the community can be referred into the service through their GP practice. GPs and practice nurses attend practice-based training and virtual clinics delivered by the integrated consultant and/or specialist registrar to refresh their knowledge of active case-finding and diagnosis using a spirometer. A respiratory nurse specialist or physiotherapist manages patients referred to the locality-based arms of the CORE team, with input from other professionals in the team. They may liaise with district nurses and community matrons; however, the patient remains under the care of their GP while in the community.

Each locality-based team meets for weekly MDT meetings or a 'virtual ward round' led by a consultant/specialist registrar to review cases. The consultant can make referrals for scans or treatment without a GP referral. Notes made at these meetings are recorded on iPads through an electronic database app (HanDBase) and can be securely emailed to other members of the team and the relevant GP. This information can also be uploaded to the hospital system.

Innovative features

- The **integrated respiratory consultant role** developed by the service to lead the specialist multidisciplinary team acknowledges the strategic role played by specialists working across primary, community and secondary care settings. Two consultants share four programmed activities, funded by Islington CCG, to promote the co-ordination and integration of care for respiratory patients. Their main role is twofold: medical leadership of the CORE team and other health professionals to diagnose patients, deliver care in the community and encourage patients to manage their condition, with appropriate support; and a strategic role developing and evaluating new services to enhance the management of patients in the community. The integrated specialist registrar role goes a stage further, creating a career pathway for clinicians interested in working across care settings and developing the skills to provide integrated care. In future, the service hopes to broaden the scope of integrated respiratory physicians as long-term condition leads for patients with multiple co-morbidities.

- There is a strong focus on **staff development and education** of the CORE team, GP practice teams, community matrons, district nurses and other professionals.
  - The integrated consultant and specialist registrar visit GP practices annually to provide education, training and advice on case management.
  - Islington COPD Nurse Champions Network links practice nurses, district nurses, community matrons, care home and prison nurses. It seeks to improve nursing skills when managing COPD patients in the community and provide the opportunity to undertake quality improvement projects. The CCG provides funding for the time nurses spend on the network activities.
  - The Responsible Respiratory Prescribing Group, a multidisciplinary group, standardises current and novel respiratory prescribing, updates guidelines and supports general practice and community pharmacies.
  - CORE team staff can access the Co-Creating Health Advanced Development Programme, which trains clinicians in reflective practice, motivational interviewing and undertaking collaborative consultations.

- The respiratory team use a range of methods, such as the iPads and HanDBase app, to **gather and use information** to improve and co-ordinate care between hospital and the community.
  - Comprehensive discharge summaries are produced for patients on the ward following a care co-ordination conference with the patient on their smoking, psychological state, treatment and escalation plans. These enable staff to transfer care to the GP and ensure appropriate prescribing for new and existing medications.
  - Data collected through the COPD bundle has been used to ascertain hospital COPD mortality, while data from the stop smoking service helped determine the smoking prevalence among inpatients and the efficacy of stop smoking interventions.

- The team have worked closely with commissioners in Islington CCG and the local authority to identify and implement a series of **financial incentives** aligned to their core objectives:
  - In hospital, a CQUIN payment worth approximately £500,000 per year was funded between 2009 and 2013 for the COPD bundle.
  - A stop smoking CQUIN payment since 2012 has a value of £360,000 per year. It incentivises care processes such as documenting smoking status of all inpatients, ensuring all identified current smokers receive brief advice, nicotine replacement therapy and a referral to the stop smoking service, and training for frontline staff.
  - Within primary care, an LES payment funded GP practices in Islington between 2010/11 and 2013/14 to provide additional care to patients with COPD in the community (for example, practice visits, case-finding, managing patients with severe COPD). It used Islington public health's IT system to collect data automatically.

Impact

The service has evaluated a number of its elements. Data provided by the service and published evaluations show:

- **COPD LES:** By 2012/13, 72 per cent of patients on the COPD register had received self-management support, 79 per cent of patients with severe COPD had been reviewed twice a year and the recorded prevalence of COPD in Islington increased by 22 per cent compared to 2009/10 (Contreras *et al* 2011). Standardised hospital admission for COPD fell by 16 per cent.

- **Mortality:** The Whittington service has an in-hospital mortality of 1.6 per cent, compared to 6.5 per cent nationally (Health and Social Care Information Centre analysis of HES 2010/11 data); 90-day in-patient mortality was 2.6 per cent compared to 8.6 per cent nationally (López-Campos *et al* 2013).

- **Stop smoking:** By December 2012, 90 per cent of patients were assessed for smoking status and offered advice, compared to 58 per cent in June 2012. Referrals to stop smoking services increased from approximately 25 per month in April 2012 to more than 120 in February 2013. The number of prescriptions for nicotine replacement therapies in a 6-month period increased from 800 in 2012 to more than 1,400 by March 2013.

- **COPD discharge bundle:** Following the implementation of the CQUIN payment, successful implementation of the five core components was between 94 and 100 per cent.

- **Pulmonary rehabilitation:** There was a significant ($p<0.05$) increase in referrals to 350 per year, with a 60 per cent completion rate (data provided by the trust); also, a significant increase in completion rate (from 50 per cent to 92 per cent) after a psychological component was added to the programme. There were also significantly fewer days spent in hospital for patients who completed pulmonary rehabilitation (in the following 12 months) compared to non-completers (Abell *et al* 2008).

- **Long-term exercise group:** Long-term exercise increased the duration of benefit derived from pulmonary rehabilitation (Roberts *et al* 2011). Data provided by the site indicates that attendees reported a 35 per cent improvement in the COPD Assessment Test (CAT) score, which measures the impact of COPD on a person's life. This compared to a 14 per cent improvement in non-attendees' scores. Attendees demonstrated a clinically significant ongoing improvement in all health-related quality of life (HRQOL) domains at six months compared to non-attendees.

Barriers and enablers to service development

Local context

- The service has benefited from **the integration of the Whittington Hospital with community health services in Islington and Haringey** in 2011, as all members of the CORE team are now employed by Whittington Health NHS Trust. This has facilitated information-sharing between primary and secondary care. Staff operate as a single unified team across localities.

Service design

- **Research and evaluation** underpins all aspects of the service, and CORE team members are encouraged to submit journal articles and present abstracts and posters at conferences. New elements of the service are evaluated during pilot projects, and the findings are used to develop robust business plans for local commissioners to secure ongoing funding.

- The service employs **a population-based approach** towards care of respiratory patients: case-finding, improving case management of existing patients and piloting a new pathway to help keep patients at home safely during an acute COPD exacerbation. This extends to prevention, offering all patients seen at the hospital stop smoking advice, referrals and cessation treatment.

Funding arrangements

- The service has **strong relationships with commissioners** in Islington, developing values, defining objectives and then implementing a targeted set of interventions and incentives aligned to those objectives across the patient pathway. This level of engagement was not evident in Haringey. While the community CORE teams operate in both boroughs, they do not provide any

additional funding for the integrated consultant role; financial incentives and support for primary care in managing respiratory patients is also limited to GP practices in Islington. The service has continued to develop in Haringey, but current funding arrangements restrict its breadth.

- **Financial incentives** have facilitated links with primary care and incentivised clinicians in hospital to deliver evidence-based interventions. However, neither the COPD bundle CQUIN funding nor the COPD LES has been continued in 2014/15 (the latter has been subsumed into a new locally commissioned service for integrated care), which may impact on future progress.

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