NHS EASTERN and COASTAL KENT IMPROVE COPD CARE WITH i-STAT®

The challenge

Chronic Obstructive Pulmonary Disease (COPD) affects approximately 1.5 per cent[(1)] of the UK's population and is the country's fifth biggest killer. Encompassing conditions such as chronic bronchitis and emphysema, COPD is usually caused by smoking and is one of the most common reasons for admission to hospital. Without close surveillance by healthcare practitioners around them, sufferers are at high risk of emergency admission to hospital – which can be costly to the local NHS from both a patient care and financial perspective.

Every time a COPD patient is admitted unexpectedly to hospital, the associated financial impact is £2,337[(2)] and in 2003/4 the total cost to the NHS reached a staggering £253 million[(3)].

Thanet in east Kent has the highest level of COPD in the nation, and as Head of Respiratory Nursing for Eastern and Coastal Kent Community Services, Mollie Jackson is dedicated to improving the level of care for the 12,000 sufferers across the region, and keeping related emergency hospital admissions to a minimum.

Mollie's team of 21 is expected to double in the next year. Currently it includes health care assistants, band seven nurses, specialist physiotherapists, physiotherapy assistants and administration staff over six sites in the region. In addition to running weekly clinics in the hospital and monthly oxygen assessment clinics, Mollie attends a number of regular meetings for respiratory nurses, practice nurses, GPs, hospital managers, patient groups and physiotherapists to help improve patient service in both primary and secondary care.

Mollie said: "Patients with COPD have traditionally been referred to a hospital so that a junior doctor could take an arterial stab for blood gases. But this can be inconvenient for the patient, and is not an effective use of our resources, especially when considering the size of the problem in this region. One of our key objectives is to see patients in the most appropriate place, and a visit to the hospital, in particular an accident and emergency department, is not always the most efficient way of treating the rising number of people suffering from conditions such as COPD."

The solution

Mollie was first introduced to the i-STAT® by a colleague several years ago, and was immediately impressed with the portable diagnostic device and the opportunities it opened up for her team in terms of monitoring and treating patients at the point of care.

The handheld i-STAT® enables respiratory nurses to monitor the status of COPD patients in minutes when conducting home visits. This means informed decisions on accurate dosing, alterations to medication or the need for a patient to undergo further assessment, can be made at the point of care. It also means less anxiety and inconvenience for patients, who can find out test results on the spot.

Using advanced biosensor technology and as little as two drops of blood plus a test cartridge, i-STAT® can deliver accurate testing for blood gases, electrolytes, chemistries, coagulation, glucose and cardiac markers. i-STAT® devices are capable of storing up to 5,000 patient records.

The benefits

Mollie said: “Providing members of my team with access to i-STAT® has meant that, for the first time, people suffering from debilitating illnesses like COPD can undergo reliable and laboratory standard tests in the comfort of their own home. Rather than travelling to hospital to undergo an arterial stab, most of our patients are now tested at home by ear prick sample. Our patients prefer this approach and my team like it too. They have found the technology easy to use and incredibly valuable in terms of improving patient care”.

In the last six years, almost two thousand patients in east Kent have had their blood gases tested in the community using i-STAT®. Previously these individuals would have been referred to hospital costing the local NHS an estimated £5 million – an amount which can now be invested elsewhere in other trust activities.

Mollie continues, “But it’s not just about the cost savings. Having an i-STAT® has empowered individual staff members. It is efficient, cost effective and reassuring for patients. The only investigation that our respiratory team can't do now is a chest x-ray.”

Already used for more than ten years in UK hospitals, the i-STAT® has added value for many years as a core bedside technology across surgical, emergency, critical care and laboratory departments. Commenting on its application and use at the point of care by staff like those at NHS Eastern and Coastal Kent, Sue Younghusband, marketing director at Axis Shield said:

"Admission avoidance is an ongoing, high level priority for the NHS the length and breadth of the country. And with diagnosis and patient management continuing to move closer to the patient, it's important that key audiences understand what sort of diagnostic devices are available to their staff and the financial and clinical benefits they can offer."

Continuing she said: "For the NHS reducing emergency admissions is not just about reducing costs. It's also about providing better patient care, reducing anxiety for people with chronic conditions and making the lives of sufferers, and those around them, more manageable. Increasingly recognised as an essential component of effective primary care, the use of diagnostic devices like i-STAT, by practitioners like Mollie Jackson and her team, prove that it is possible to revolutionise the way patients are treated in the community."

(ends)

Footnote:

(1) Reference for percentage of population affected by COPD: according to data from the Quality Framework system in Primary Care - http://www.primarycaretoday.co.uk/?pid=4216&lsid=4328&edname=25271.htm&ped=25271

(2) Reference for National Tariff: COPD emergency admission = £2,337
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_081096

(3) Reference for 2003/4 costs: Total cost of COPD Emergency admissions = £253 million http://www.dh.gov.uk/en/Publicationsandstatistics/Pressreleases/DH_4131823

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