

New ways to help patients monitor their blood pressure

Christian Duffin talks to pioneering community nurses

RAISED BLOOD pressure is a risk factor for cardiovascular disease and stroke, and monitoring is vital in the management of chronic kidney disease. Poor blood pressure control is linked to increased hospital admissions, but many people on treatment for hypertension have not had their blood pressure well controlled. This deficiency, alongside government demands for patients to be treated in community settings rather than in hospital, has led to new nurse-led projects based on helping patients self-monitor and self-manage their blood pressure in their homes. Some nurses are using telehealth technology; others have introduced text messaging systems to help patients keep their blood pressure low.

Practice

Sutton Council has installed monitoring devices in patients' homes so that GPs and practice nurses can monitor their clients' blood pressure, blood oxygenation and other indicators, and take early action. A six-month pilot in the borough reduced admissions and saved around £322,000.

In Stoke, nurses are part of an initiative in which patients submit information about their blood pressure via text messages, and receive an automated response advising them of the most appropriate action. The system allows healthcare professionals to oversee patients' progress.

NHS Stoke has received more than £70,000 from the Health Foundation to run the project for a year. Early pilot projects have already indicated positive results for patients with chronic kidney disease and those whose poor blood pressure control had previously put them at risk of strokes or falls.

In 2005, London-based researcher Sally Kerry completed a review of previous research studies and concluded that patients with hypertension

can bring down their blood pressure level simply by monitoring it at regular intervals themselves. 'We don't know why we got those results. Maybe it's because people feel more involved in their care and so become more compliant with their medication schedules,' says Ms Kerry, a reader in medical statistics at Barts and the London School of Medicine and Dentistry. 'At Weight Watchers clubs one of the things they do is measure

your weight. Some people don't realise how much weight they are putting on, because they don't weigh themselves. When people take their own blood pressure they understand they may need to do something to change the situation, so maybe it encourages them to take more exercise, watch their salt intake, or speak to their GP when they have concerns.'

Research

More recently, Ms Kerry wanted to test whether the same idea would hold true for hypertensive patients who had also had a stroke. There was no previous research involving this patient group. She recruited stroke patients from stroke clinics or hospital

Best practice model

In Swindon, community matron Kim Hogan oversees 79 patients with long-term conditions such as hypertension, heart failure and diabetes using telehealth. There are plans to increase the figure up to 5,000. Ms Hogan ensures people are educated about their condition, more in control and able to cope when they feel unwell. Patients monitor their blood pressure, weight and pulse knowing that there is someone available if their vital signs are not as they should be.

Depending on their conditions, patients are asked whether they are breathless, producing excess sputum, or feeling unwell. The answers trigger responses from the telehealth system, which may be that the patient is on track, needs to adjust their medication, seek medical help or even call an ambulance. Each patient has a self-management plan to help them deal with fluctuations in their condition.

Ms Hogan monitors patients via electronic data sent to her telehealth system link-up, and she can phone patients if the readings give her cause for concern. Health professionals have close links with social workers, district nurses and occupational therapy teams to enable patients

to access the services they need. 'The telehealth informs patients and helps them understand their condition better,' says Ms Hogan. 'We were amazed by the number of people who had a diagnosis of a long-term condition, but did not understand it. She adds: 'The initial cost of the equipment is about £1,500, which is about the cost of one hospital admission.'

Hospital admissions have gone down significantly since telehealth has been introduced, says Ms Hogan, although she does not have figures to illustrate this. But she does describe a patient who had been admitted to hospital five times in three months at a cost of £13,000 before using telehealth. Since using it he has not been admitted in nine months. Telehealth does not work for all patients, Ms Hogan explains: 'For some people, having equipment in their homes raises their anxiety levels.'

Ms Hogan believes that the Swindon model is superior to most others of its kind in the UK. 'We provide 24-hour care. Other places have telehealth but the readings may go to a GP surgery, which may be open on Mondays to Fridays, but not on weekends.'

wards with the help of Jenny Tulloch, a lead nurse for clinical trial research at St George's University, London. Their initial cohort was 381, with an average age of 72, and just under half had some limitations of daily activities due to stroke.

The patients were randomly split into two groups, half of whom were visited at home and given a home blood pressure cuff and monitor. Ms Tulloch taught them how to take their blood pressure and offered phone support when required. Patients were asked to record their blood pressure every day for the first week and then once a week for a year. To get accurate readings, the patients took three readings, one minute apart, on the day they did their measuring. The other half of the patient cohort was given the usual care package, which meant that they would contact their GP if they were concerned.

Mrs Tulloch says: 'We had to make sure that the patients did it right, and that they sat down for at least five minutes before they took their blood pressure. Sometimes we would go through it with a carer, if someone was not able to do it themselves.'

Ms Kerry found that patients were highly motivated to avoid a further stroke and only a minority reported anxiety about their blood pressure. 'The patients gained a welcome sense of empowerment and control over managing their health, and for some this meant they felt confident and were more experimental with their medication doses.'

Early results showed that systolic blood pressure was lower in the patients using the home blood pressure monitoring at six months by 2.2mmHg and 2.4mmHg at

12 months. But these figures have not been subject to a full analysis, says Ms Kerry. It appears that patients who were disabled – particularly those who lived alone – had a less positive experience, and any benefit of monitoring on reducing systolic blood pressure is likely to be limited to those patients who are not disabled, says Ms Kerry. This is because self-monitoring is much more of an ordeal for someone who is disabled.

Self-care

Health secretary Andrew Lansley recently singled out Swindon's community matron scheme (see Box) as a best practice model for the rest of the NHS. He said that the UK will see a more than a threefold increase in the number of patients over 65 with one or more long-term conditions such as hypertension and heart disease by 2050, and that the NHS will only cope by implementing major changes.

One change is that health professionals must give patients more support to care for themselves; patients with asthma can check their lung function using new technology so that they can pick up problems and address them before they need hospital admission. Patients should also have access to new technology such as telecare so that health professionals can monitor their vital signs remotely and treat problems before they escalate, says Mr Lansley.

These are just the sorts of things that Ms Hogan at Swindon Primary Care Trust and other nurses in Sutton and Stoke are already using – with success.

Christian Duffin is a freelance journalist

Better telephone triage



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Julie Penfold describes how nurses can learn to listen and improve consultation skills

WITH MORE than 25 years' nursing experience, and having spent the past 13 years as a senior nurse manager in telephone triage and out-of-hours care provision, Sally-Anne Pygall felt strongly that telephone care needed to improve. She decided to launch Telephone Consultation Services to help healthcare professionals improve their attitudes and responses to triage. Clients include clinical and non-clinical staff, out-of-hours providers, primary care trusts, and the Royal College of General Practitioners.

'Telephone health care is undervalued, underperformed and under monitored and carries enormous risks if carried out incorrectly,' says Ms Pygall. 'When triage is performed well, it can save lives and money.' One quarter of all interactions between a patient and healthcare provider

take place over the telephone but there is little mandatory content on triage in general nursing training. Only a few universities offer modules in telephone consultation skills. GPs do not have mandatory training unless they work out-of-hours and are trained by a GP who, in turn, has not received official training. This lack of training means triage is often underperformed.

Ms Pygall's work includes listening to and auditing calls which she says regularly show a lack of skills in handling triage calls. As a result, patients are given unnecessary appointments or are not referred to emergency services when they should be.

Patient empowerment

'Telephone triage is an opportunity to empower and educate patients in managing their own health care,' says Ms Pygall. Educating worried parents through triage is a tool of effective communication. 'If you have a concerned parent with a poorly child who has a

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