

Telemedical ECGs boost patient care

By Dr Jonathan Lieberman

Can GPs improve cardiac care within primary care while also reducing the cost of NHS cardiac services? A Telemedical Electrocardiograph (ECG) service used at GP surgeries in Manchester is proving that the days of referring patients to hospitals for ECGs may soon be over.



heart disease (CHD) is a major financial burden on the NHS every year. An estimated £34 billion is spent on cardiac care every year – but is every penny well spent?

Delivering effective and efficient cardiac care is an area the Department of Health is focusing on and their National Service Framework for Coronary Heart

Disease initiative includes standards for improving prevention, diagnosis and treatment of CHD. In my view finding a single solution that helps reduce the operational and financial burden of cardiac care on the NHS while also delivering distinct benefits to both patients and their doctors would be the ideal answer.

Early detection should lead to early action, and moving diagnosis away from acute hospitals into primary care settings would be the best solution. Developing a more proactive and preventative model of care in a primary care setting would ease some of the financial and operational pressures placed upon acute care providers, not only benefiting patients from a clinical point of view but also freeing resources in secondary care.

The most common method of diagnosing cardiac conditions is the ECG and while most GP surgeries have access to ECG machines, the skills required for accurate and detailed 12 lead ECG analyses can be difficult to maintain outside cardiology or emergency medicine specialities.

But Telemedical ECGs import the same kind of cardiac expertise found in hospitals into a GP's

surgery, and coupled with a cardiac monitoring service that expertly interprets the results, it provides patients with a facility that not only gives them a full on-the-spot ECG test and assessment, but also cuts out the often lengthy waiting times that go hand-in-hand with a hospital-based ECG test.

St Gabriels Medical Centre in Prestwich, Greater Manchester, provides care for over 8,500 patients. Since 2006 the surgery has been using Telemedical ECG services from Manchester-based telemedicine specialist Broomwell HealthWatch. The NHS accredited cardiology reporting service provides quick expert diagnosis of chest-pain symptoms from trained cardiologists and has proven to be popular with both patients and staff at the surgery. Easy to use, the service transmits 12 lead ECGs in just seconds to the monitoring centre where a cardiology clinician provides an immediate interpretation and returns the analysis report back to the GP.

The reporting service and telemedical ECGs have greatly benefited St Gabriels Medical Centre. Although we have access to a conventional 12-lead ECG machine, staff were not 100% confident in interpreting the results. Introducing the service has eased the pressure on the staff.

An additional benefit of the device is its portability. The new machines are much smaller hand-held devices compared to the traditional bulky ECG machines. This means clinicians can use them in several different rooms within the practice and they can also be taken off premises to be used for home visits to patients.

With the focus now on building a patient centered NHS, we have found that the response from patients has been overwhelmingly positive. Being able to stay within the familiar surroundings of their doctor's surgery with faces they recognise and trust means patients are more at ease. Having an ECG done at their local surgery also means they do not spend time travelling back and forth to hospital, so

there is less hassle and reduced stress.

The burden of what we term "frequent flyer" patients on hospitals is considerable. Cutting unnecessary emergency admissions and referrals to out-patient clinics would free up hospital resources and accrue savings, which could be reallocated to other key areas.

A major two-year pilot carried out by the Greater Manchester and Cheshire Cardiac and Stroke Network (GMCCSN) found that Broomwell's ECG service could prevent up to 63% of referrals to secondary care if rolled out across the Network. The pilot, which started in 2007, enabled over 2,000 people to avoid a trip to hospital, saving the NHS thousands in care costs and eliminating patient delays, stress and anxiety through quicker, more convenient diagnosis.

Since deploying the telemedical ECG service at the medical centre, we estimate 90% of patients who have come in for a test avoided going to hospital and were offered reassurance at the surgery. Without the service these patients would have been sent directly to hospital, unnecessarily consuming NHS time and resources.

The successful outcomes of the initiative mean that healthcare bodies are beginning to realise the potential benefits of telemedicine and today the monitoring service is in use across 10 PCTs in Greater Manchester, as well as at PCTs elsewhere. Telemedicine services are also beneficial as a diagnostic aid for other medical conditions, as a solution to further reduce cardiac referrals onto secondary care, saving patients a great deal of inconvenience and worry and reducing the financial burden on the NHS.

** Dr Jonathan Lieberman is a GP at St Gabriels Medical Centre, Prestwich, Manchester.*