Implementation of the National Service Framework for Coronary Heart Disease in primary care

The Durham Dales Primary Care Trust (PCT) won two national awards in May 2002 for 'Best Implementation of a National Service Framework or other Nationally Recognised Clinical Standard' and 'Best Overall Team Performance'. Specialist nurse Caroline Levie and general practitioner Stewart Findlay report on the innovations the PCT and their local GPs have made.

Abstract

The innovation of specialist nurses in coronary heart disease prevention across 12 practices in a rural County Durham Primary Care Trust (PCT) with a high rate of premature death from heart disease helped the Trust achieve the National Service Frame-work (NSF) for Coronary Heart Disease (CHD) targets and milestones. The introduction of nurse-led CHD clinics at each practice provided a structured follow-up for all patients with CHD to locally agreed guidelines. Audit data collected showed that after 12 months, the service showed an improved management of secondary prevention: more patients had had their cholesterol measured, more had received lipid-lowering medication and more had achieved target cholesterol levels of < 5.0 mmol/L than at baseline. Aspirin prescribing also increased. The PCT has also recently introduced a specialist heart failure nurse to carry out a similar programme and, in addition, has addressed cardiac rehabilitation to provide a home-based service for some patients.

Key words: coronary heart disease, secondary prevention, specialist nurses, primary care, National Service Framework for Coronary Heart Disease.

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Introduction

Coronary heart disease (CHD) is one of the biggest killers in this country, accounting for more than 135,000 deaths per year in the United Kingdom in 1998.[1] This is a particular problem in the Durham Dales Primary Care Trust (PCT) area, where the premature death rate from CHD is higher than the national average.[2] Fifty more people die per year than the national average in this area. Data show an average of 4% of the PCT population aged less than 75 years has a diagnosis of CHD. Following publication of The National Service Framework (NSF) for CHD,[3] the government has made CHD a priority. This sets out clear standards and milestones that each health care organisation has to achieve; the standards aim to target prevention, diagnosis and treatment of CHD.

> ***'Our PCT aim was to achieve the National Service Framework milestones with minimal disruption to practices'***

The Durham Dales PCT has a population of approximately 87,000 people. There are only 12 general practices, covering one of the largest rural areas in the country. Achieving the milestones set out in the NSF for CHD can prove challenging for many primary care teams. Our PCT aim was to achieve these milestones with minimal disruption to practices; the PCT, therefore, funded 100% the specialist nurses in CHD prevention.

The aims and objectives of the nurse-led service are set up to demonstrate an improvement in secondary prevention assessment, management and treatment of patients with CHD, and to demonstrate – using computerised audits – that the PCT is hitting all the milestones set within the NSF. The role of the specialist nurses is to facilitate and coordinate this nurse-led service across all 12 GP practices. They must ensure the milestones and targets set in the NSF for CHD are met and also that the service demonstrates an improvement in the assessment and treatment of risk factors in patients with CHD. Nurse-led secondary prevention clinics have been shown to be effective in providing systematic care, better secondary prevention, and improving the health of patients with CHD as well as reducing hospital admissions.[4]

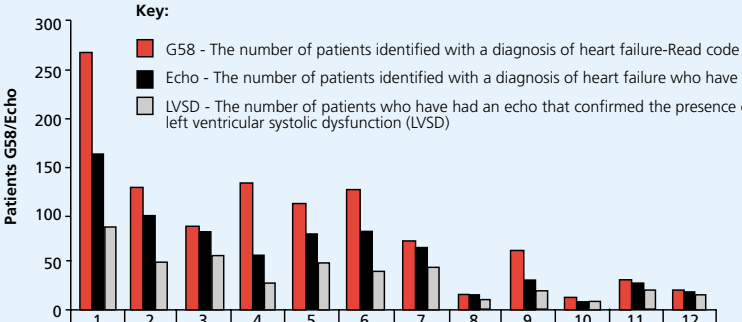
CHD clinics

The Durham Dales PCT was the first PCT in our area to introduce specialist CHD nurses to coordinate, facilitate and run CHD clinics in each of its 12 GP practices. The specialist CHD nurses support those practice nurses who are also involved in running a CHD clinic. The aim and objectives of the nurse-led

Table 1. CHD clinic review includes

- Assessment of symptoms, frequency and duration of chest pain
- Blood pressure and pulse
- Height, weight and body mass index (BMI)
- Cholesterol
- Smoking history
- Diet
- Exercise
- Alcohol intake
- Medication
- Review of cardiac investigations

Figure 1. Baseline audit of patients with heart failure (Durham Dales PCT August 2001)



	1	2	3	4	5	6	7	8	9	10	11	12
G58	268	126	85	130	109	125	70	15	59	11	28	20
Echo	162	96	80	56	79	80	63	14	31	8	27	18
LVSD	85	49	56	27	46	39	42	10	18	7	22	14

CHD clinic is to assess individual risk factors, provide education and lifestyle advice, encourage concordance to lifestyle changes made, inform about medication and assess symptoms.

A standardised ischaemic heart disease (IHD) template is in use in all 12 practices, and all specialist nurses and practices nurses use locally agreed guidelines to provide a structured follow-up for patients with CHD. In addition, the CHD nurses run quarterly meetings within general practices to present clinical audit data.

The first step in the development of this service was to identify the patients with a diagnosis of IHD. A computer search of the PCT's practice registers was performed based on READ codes for IHD (G3) and patients prescribed nitrates.

The IHD register is maintained and updated monthly in each practice. To provide a seamless service for patients, the hospital cardiac rehabilitation team refers all patients who have been admitted to hospital with acute myocardial infarction (MI), or who have been diagnosed with angina at the Rapid Access Chest Pain Clinic, to the CHD nurses at the GP's practice. Following this referral, all patients are added to the CHD disease register and invited to attend for a review at the CHD clinic (table 1) held at their GP practice.

Patients attend one week before the clinic appointment to have a blood test for cholesterol. The initial appointment lasts 30 minutes with review appointments lasting 20 minutes. Patients are subsequently reviewed at three, six or 12 months depending on individual risk factors and need. All consultations are entered on to the data entry IHD template in the patient's medical record held on the general practice's computerised clinical systems (EMIS in all practices). This allows the patient's usual GP to be aware of the outcome of each clinic visit. Patients are referred to the GP as necessary. All information is READ coded which aids future clinical audit data collection.

'The hospital cardiac rehabilitation team refers all patients who have been admitted to hospital with acute MI or who have been diagnosed with angina to the CHD nurses at the GP's practice'

Heart failure

The PCT has also employed a heart failure specialist nurse to provide a structured follow-up for patients with heart failure in primary care. With its emphasis on being proactive and preventative, the PCT decided to set up a unique service of a nurse-led clinic model of care for heart failure patients in primary care. It is the first in the region. The responsibility of the heart failure nurse is to coordinate, facilitate and run heart failure clinics in all practices. Again, the aim is to provide a seamless service between primary and secondary care. The nurse works alongside a physician at the local trust, who runs a heart failure clinic. Any patients the nurse has identified in her own clinic as being on suboptimal treatment and in need of a specialist review are directly referred into the secondary care service. All patients discharged from this heart failure clinic are then referred back to the heart failure nurse for follow-up in her clinics. A baseline audit of patients that have had heart failure in primary care was completed (figure 1). We intend to monitor the benefits and outcomes of our heart failure nurses intervention in primary care.

Cardiac rehabilitation

In addition, the PCT has addressed phase II cardiac rehabilitation. A health visitor from each GP practice has attended the Heart Manual facilitator course. Studies evaluating the Heart Manual have demonstrated reduced levels of anxiety, fewer hospital re-admissions and reduced visits to the GP.[5,6] The Heart Manual is now offered

Figure 2. Total number of patients with cholesterol recorded

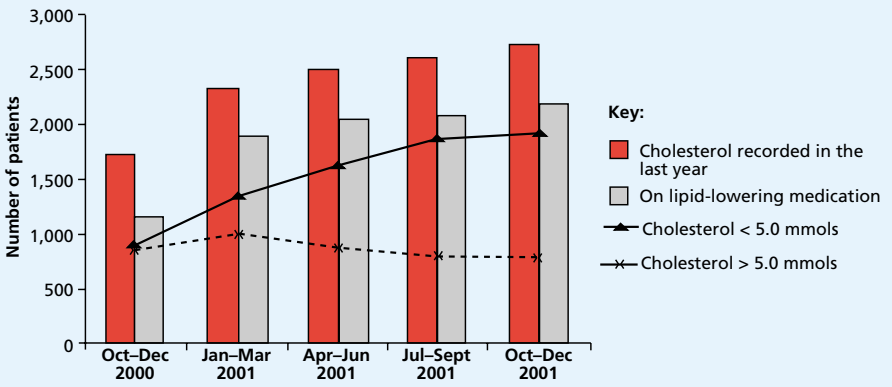
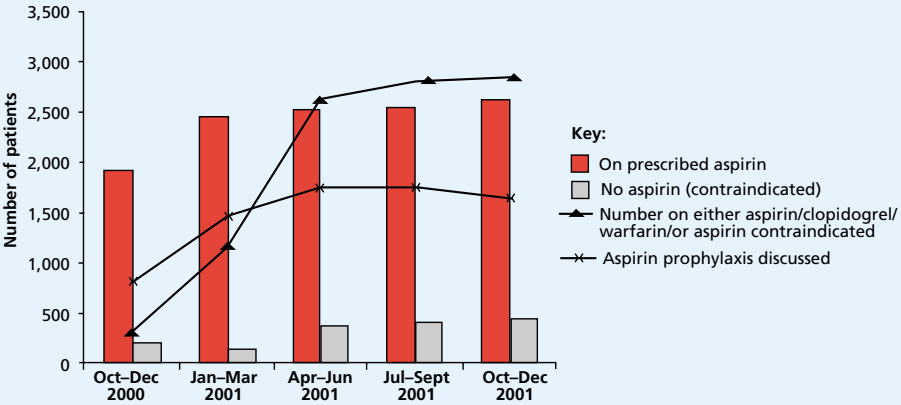


Figure 3. Total number of patients taking aspirin or contraindicated



to all post-MI patients, which has improved the options for such patients post-MI and addressed some of the causes for non-attendance to the out-patient group rehabilitation programme.

All patients whether they are living in the urban or rural areas of the PCT are now offered:

- A Heart Manual home-based programme
- An out-patient cardiac rehabilitation group programme coordinated by the cardiac rehabilitation team at the local trust

or

- The Heart Manual home-based programme followed by the out-patient group programme.

Improvement in evidence-based practice

The PCT has taken responsibility for monitoring service outcomes. Quarterly audit data are obtained in line with the NSF requirements, an April 2003 milestone. Audit data collection commenced in October 2000, searching on the GP IT clinical system. 'EMIS' initially collected this but we now use Miquest to collect all audit data. The data collection includes the uptake of aspirin, beta blockers post-MI, statins, blood pressure and the cholesterol recording within the last year.

We have found that within the last year, 2,718 (80%) of patients (an increase of 16%) have had their cholesterol measured, with 64% now receiving lipid-lowering medication compared with 43% at baseline (figure 2). Cholesterol levels have improved: 71% of patients who have had cholesterol measured have a level of < 5.0 mmol/L, a 20% increase over the previous 12 months. Patients with a cholesterol level > 5.0 mmol/L measured in the last year have decreased from 48% to 29%.

We can also demonstrate an increase in aspirin prescribing. Within the last year, 2,537 patients (75%) are now prescribed aspirin, compared with 1,915 (71%) at baseline (figure 3). Some 2,872 patients (85%) are prescribed aspirin, clopidogrel and warfarin, or documented as aspirin contraindicated.

Patient outcomes

As a new service, priority was given to gaining users' views. To audit the service a patient questionnaire was given to a random sample of patients attending the CHD clinic to assess their views of the service provided. A total number of 515 questionnaires were randomly distributed and the patients completing the questionnaire remained anonymous. The survey was completed in November 2001. Some 61% (312) responded, with results of the questionnaire demonstrating overall satisfaction with the service provided. Of those responding, 62.8% of patients felt they had a better understanding of their condition as a result of attending the CHD clinic. The survey highlighted that some patients (0.3%) were not aware of how to make contact with the CHD nurse, some did not receive adequate information on exercise (3.5%) and information on healthy eating was not necessarily changing dietary habits – 43% had changed their eating habits since the visit to the clinic, while 48% had not.

In light of these user views, development of the service is now taking place with the following changes:

- Name cards with contact details are now provided to patients at their initial clinic visit.
- The exercise information and service

Key messages

- Specialist nurses can coordinate, facilitate and run CHD and heart failure nurse-led clinics to help achieve the National Service Framework standards and milestones
- The PCT has agreed a standardised CHD template and guidelines for use in the nurse-led clinics. It has also funded the specialist nurses
- Audit data are collected quarterly and have shown these clinics provide better secondary prevention and improved management of patients with CHD as well as reducing hospital admissions

is currently being reviewed, looking specifically at the angina exercise programme based at a local leisure centre, chair-based exercises and supervised walks.

Planned future initiatives include:

- The Angina Plan[7] for newly diagnosed patients with angina
- An angina exercise programme at the local leisure centre.

Conclusion

The Durham Dales PCT has supported the GP practices in addressing the standards and milestones set by the NSF for CHD by coordinating, facilitating and running CHD and heart failure nurse-led clinics. We also provide home-based cardiac rehabilitation for patients unable to attend hospital-based programmes.

The success of this service is due to joint working with all members of the primary health care team. The CHD team decides at the quarterly practice meeting the areas that require improvement, this is then addressed by all, resulting, as the data have demonstrated, in an improvement in the management of secondary prevention. It is now essential that this improvement be sustained.

The Durham Dales PCT is committed to the ongoing monitoring and development of our CHD strategy and intends to be well ahead of all milestones. The nurses will continue to be funded by the PCT to coordinate, facilitate and run the CHD clinics.

Acknowledgement

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