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A member of the cardiac rehabilitation team was trained to provide cover

Referral forms were changed to reduce inappropriate referrals by asking GPs about the presenting symptoms, such as: Is the pain/ache central and dull in nature (<15 minutes)? Does exertion or emotional stress precipitate it? Does rest or GTN relieve it?). An appropriate referral will have positive answers to at least two of the questions. Otherwise, GPs are asked to state why they want to refer the patient to the RACPC.

GPs and A&E staff were enabled to access the referral form via the hospital intranet

No in-house referrals were to be allowed except from A&E

Clinic times were changed from the afternoon to the morning

A new IT system enabled smoother process-generating documentation and audit/research

**BOX 1. ACTIONS TAKEN TO IMPROVE THE PROCESSES OF A RACPC**

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**Analysing and improving a rapid-access chest pain clinic**

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This article describes how involving patients and analysing procedures in a rapid-access chest pain clinic improved the service. Waiting times were reduced, targets were met, processes were improved and a new cardiac rehabilitation service was offered to patients with newly diagnosed angina.

Angina pectoris is a common, disabling, chronic cardiac condition. It is estimated that there are about 338,000 new cases per year in the UK (British Heart Foundation, 2004). People with coronary heart disease are at risk of myocardial infarction, death or other vascular events. The National Service Framework for Coronary Heart Disease (Department of Health, 2000) requires that new cases of chest pain suspected to be due to angina should be assessed by a specialist within two weeks of referral.

Cardiac rehabilitation has been demonstrated to improve quality of life and reduce symptoms. The NSF for CHD (DoH, 2000) states that primary care trusts should commission models of care to recruit all patients with a primary diagnosis of CHD to a cardiac rehabilitation programme. However, there is no specific target for cardiac rehabilitation to be offered to patients with newly diagnosed angina.

These patients usually have lots of questions about their condition, and it is the role of the GP to offer comprehensive advice and appropriate treatment to reduce risks to all people with established CHD. Unfortunately a GP appointment following a diagnosis of angina at a rapid-access chest pain clinic (RACPC) could take weeks to book and these are usually very brief due to time constraints.

Lewin et al (2002) demonstrated that a brief cognitive behavioural intervention known as the angina plan, delivered in primary care, appeared to improve the psychological, symptomatic and functional status of patients with newly diagnosed angina. The angina plan is designed to be used after receiving a diagnosis of angina and is therefore highly appropriate for use within the RACPC.

Between March and October 2003, patients referred to the RACPC at the hospital in this study waited an average of 34 days for an appointment. There was a high proportion of inappropriate referrals to the clinic and patients were not offered any cardiac rehabilitation. The appointment of a nurse consultant has led to a service redesign and increased patient satisfaction.

**How were improvements made?**

Together with a project manager for the coronary heart disease collaborative (CHDC) and a health psychologist, the nurse consultant analysed the RACPC processes. A process-mapping session was conducted in which key players in the patient’s journey informed each other how their work was interrelated. Patients were invited to look at the final process map and comment on the processes from
their point of view. They commented that they needed more information about heart disease and about what was going to happen to them. It was decided that action was needed to improve the processes (Box 1).

A small grant was awarded by the CHDC to pilot the use of the angina plan in the RACPC. Thirty-seven patients diagnosed with stable angina were offered the angina plan, which includes a workbook, relaxation and advice tapes. Twenty-five completed the plan in 2004 and six declined – one because he was moving from the area, while five did not wish to take part.

Patients participating in the trial attended a one-hour session with a trained facilitator to:
- Explain the angina plan and correct any misconceptions;
- Set goals;
- Measure blood pressure, body mass index, activity levels, and anxiety and depression – using hospital anxiety and depression scales (HADS);
- Ascertained smoking status;
- Collect information on diet.

The facilitator telephoned the patients at one, four and eight weeks after the session to help motivate them and assess their goals. At 12 weeks they were invited back for a final assessment and asked to return evaluation questionnaires; 24 patients completed the questionnaires.

Achievements
As a result of the above changes, the team achieved and sustained its 14-day waiting target for RACPC – the current average wait is eight days. The number of inappropriate referrals has been reduced and contingencies are in place for succession planning, with extra members of the cardiac team trained to undertake regular clinics and provide cover.

By reviewing audit results for myocardial perfusion imaging over the past three years, the team noticed that 50–60 per cent of results are normal. Rather than follow up these patients in an outpatient clinic, the GP and the patient are informed by letter with a contact number in case they need to discuss the result. This will reduce outpatient waiting times.

Changing the clinic from afternoon to morning and using a new IT system have improved communication with colleagues in primary care by ensuring letters are sent to GPs and practice nurses on the same day. The patient’s letter includes guidelines on lifestyle changes and treatment plans.

Twenty-one patients (84 per cent) completed the evaluation questionnaire, and all found the angina plan to be helpful. Eighty-five per cent of respondents felt that their understanding of angina had improved significantly – this is supported by the reduction in misconceptions about angina at the 12-week follow-up. Eighty-three per cent said they had misconceptions about angina before the plan, and 63 per cent had fewer misconceptions afterwards. All those who scored eight and above on the HADS scale experienced reduced anxiety.

Seventy-five per cent of respondents reported feeling more confident since using the angina plan and 60 per cent found it a lot easier to relax. Ninety-five per cent felt able to ask the facilitator questions and discuss concerns.

All reported at least one behavioural, psychological or physiological outcome that was positive, and although only 12 per cent reported being active at the start of the angina plan, this rose to 88 per cent at the end.

Comments on the evaluation questionnaire fit into four themes:
- Easy to understand;
- Confident building;
- Educational;
- Motivational (for lifestyle change).

Patients’ comments included:
- ‘It’s a useful aide-memoire.’
- ‘I know how to relax but the tape told me things I was not aware of.’
- ‘I’m more conscious of healthy eating, dieting, exercise, relaxation etc.’

Discussion
Patients with newly diagnosed angina now have to wait and worry about their condition for less time before attending the clinic. Although this was a small pilot, all patients benefited from the angina plan.

The facilitators carried out the study in addition to their daily responsibilities. It is clear that further investment is needed in improving the quality of information and advice given to CHD patients.

Future plans
The team plans to continue offering this service to patients in the RACPC and to inpatients with angina. Funding was granted by the Health Action Zone to extend the angina plan to primary care. It is intended to offer the plan as a group session or on a one-to-one basis, extending patients’ choice of both setting and format.

More changes to the clinic’s processes still need to be made. For example, we want to send letters electronically to primary care, tertiary referrals and dietitians. We also plan to adopt the same process following normal stress echocardiogram results as we now do for myocardial perfusion imaging.

By analysing the processes of the RACPC, the nurse consultant has been able to work with others to implement and sustain improvements to the services that make the experience smoother for the patient. By involving patients in the processes, a new service has been piloted that helps them gain a better understanding of their condition.

REFERENCES


This article has been double-blind peer-reviewed.

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