

Diagnosis and management of patients with heart failure in England

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ABSTRACT – The objective of this postal survey was to assess the services currently accessed by primary care trusts (PCTs) for patients with chronic heart failure. Of the 303 PCTs in England, 225 (74%) responded to the questionnaire. Natriuretic peptides were used by 61 (26%) PCTs, whereas direct access to echocardiography was available to 163 (72%) and heart failure clinics to 95 (42%). Heart failure services were led by a cardiologist in 138 (61%) main referring hospitals, an elderly care physician in 33 (15%), and other physicians in 50 (22%). In total, 138 (62%) PCTs had access to heart failure nurses and 40 (18%) used coronary heart disease nurses; in 13 (5%) PCTs, patients with heart failure were seen by practice nurses. This survey highlights the need for further research on the cost effectiveness of service models for diagnosing and managing heart failure. The evidence base behind heart failure nurses should support their wider availability. The question of who cares for patients with heart failure should be reflected more widely in specialist training programmes in both secondary and primary care.

KEY WORDS: cardiologist, echocardiography, heart failure, natriuretic peptides, nursing, training

Introduction

Establishing of an accurate diagnosis is essential for appropriate management of heart failure.¹ As the symptoms are often non-specific, the National Institute for Health and Clinical Excellence² and European Society of Cardiology¹ suggest using natriuretic peptides and/or electrocardiography to triage referrals. In England, the National Service Framework for coronary heart disease (CHD) recommends different service models, including open-access echocardiography (where primary care physicians refer directly for echocardiography) or heart failure (or function) clinics as the next stage.³ The quality outcomes framework remunerates primary care practices with valid heart failure registers in which the diagnosis is confirmed by echocardiography.⁴ Primary

care trusts (PCTs) represent groups of practices and have been responsible for commissioning diagnostic services and providing chronic disease management. This survey was conducted on behalf of the British Society for Heart Failure to examine the resources available to, and services currently provided by, PCTs in England.

Methods

During September and October 2005, questionnaires were sent to the CHD leads and chief executives of all 303 PCTs in England, with two further mailings for non-responders. Overall, 225 (74%) replies were received.

Results

The results are divided into three sections: primary care diagnostics, secondary care diagnostics, and disease management. Table 1 shows the percentages for PCTs that replied to the questionnaire, as well as these values expressed as a percentage of all PCTs (including non-responders). If it is assumed that non-responders are less likely to have access to these services, the true values probably lie somewhere within these ranges.

Primary care diagnostics

Overall, 61 (26%) PCTs have used, or are currently using, assays of B-type natriuretic peptide (BNP or N-terminal proBNP) as a screening tool. In total, 163 (72%) could refer directly for open-access echocardiography and 95 (42%) had access to a dedicated heart failure (or function) clinic, while 31 (14%) had access to neither echocardiography nor a heart failure (or function) clinic. Forty-nine (22%) had a general practitioner (GP) with a special interest in heart failure or other aspects of cardiology.

Secondary care diagnostics

Heart failure services were led by a cardiologist in 138 (61%) of the main hospitals to which patients were referred, an elderly care physician in 33 (15%), and

Table 1. Access from primary care to diagnostic support and chronic disease management for the primary care trusts (PCTs) that responded to the survey.

Support	Number (%) of responders (n=225)	% of all PCTs* (n=303)
Use of testing for B-type natriuretic peptide	61 (26)	(20)
Open-access echocardiography	163 (72)	(54)
Heart failure (or function) clinic	95 (42)	(31)
Heart failure nurses	138 (62)	(46)
Heart failure rehabilitation	55 (24)	(18)

*Number of responders expressed as a percentage of all PCTs including non-responders.

other physicians in 50 (22%). Eight PCTs felt there was no coordinated secondary care service. Of the 95 heart failure (or function) clinics, 78 (89%) were provided by a cardiologist and the remainder by elderly care physicians. All had specialist nurses, 30 included a GP, and 13 (15%) included pharmacists.

Disease management

In total, 138 (62%) PCTs directly employed or had referral access to heart failure nurses. Patients with heart failure were seen by CHD nurses in 40 (18%) and practice nurses in 13 (5%).

Of the 138 heart failure nursing services, 133 were titrating β -blockers without medical supervision: 108 in hospital clinics, 45 through GPs' surgeries, and 62 when seeing patients at home. Fifty-five PCTs claimed to provide some form of rehabilitation for patients with heart failure.

Conclusion

This survey confirms wide variation in the primary and secondary care approaches to heart failure services, which results in many service different models. Only a minority of PCTs have adopted measurement of BNP, whereas open-access echocardiography is available more widely, although not universally. Why has the uptake of testing for BNP not been more widespread? Many primary clinicians harbour doubts as to the optimum cut-off for referral, the limitation of expedient secondary care services, and the lack of cost-benefit analysis.⁵

Open-access echocardiography developed in the 1990s when some general practices opted to manage their own healthcare budgets. This process, known as 'fundholding', was subsequently dropped, but its legacy persists. Although the value and cost-benefit of open-access echocardiography have been the subject of observational studies, they have never been the subject of randomised controlled trials.⁶ The four published series found left ventricular systolic dysfunction in only one fifth of referred patients, and diastolic function generally was not assessed.⁶

Heart failure (or function) clinics generally provide a one-stop approach to diagnosis of heart failure and, as this study

shows, have a multidisciplinary approach.⁷ As only a few patients referred prove to have heart failure or left ventricular systolic function,⁸ however, such clinics are expensive, and further research is required to compare the cost effectiveness of these differing service models.

The healthcare system in England is undergoing a radical reorganisation.⁹ Through practice-based commissioning, GPs will (again) be responsible for their own budgets and will seek to purchase services from traditional sources, such as local hospitals, or new healthcare providers. The largest health cost associated with heart failure results from inpatient care, so it is disappointing that many PCTs do not have access to multidisciplinary management programmes, including heart failure nurses, which substantially reduce hospitalisation and mortality.^{10–12} The British Society for Heart Failure encourages all PCTs to provide this evidence-based service.

Fewer than half of the PCTs have access to a heart failure (or function) clinic, which, if present, generally is provided by a cardiologist. Heart failure is included in the curriculum of specialist training in general (internal) medicine, elderly care medicine, and cardiology.¹³ Cardiologists can now opt to undergo subspecialty training in heart failure, so we may see significantly more heart failure consultants. However, most patients are elderly, many will have significant comorbidities, and both rehabilitation and palliative care are core competencies in elderly care medicine. Flexible training of elderly care physicians in order to develop a subspecialty interest in heart failure thus seems both desirable and feasible. Indeed, the natural history of heart failure from the patient at risk to end-of-life issues spans multiple disciplines.¹⁴

Nearly a quarter of PCTs currently have GPs with a specialist interest in cardiology or heart failure. The quality of training, mentoring, peer support, and team-working, as well as clinical governance issues, will determine how effectively these new healthcare providers will work for the management of a chronic disease in which acute decompensation will always require secondary care input.

This survey highlights the need for further research on the cost effectiveness of service models for the diagnosis of heart failure. The evidence base behind heart failure nurses should support their wider availability. The question of who cares for patients with heart failure should be reflected more widely in specialist training programmes in both secondary and primary care.

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