

# Echocardiography in the community

**In the second commentary on echocardiography in the community, general practitioner Ed Southall writes about the new British Society of Echocardiography accreditation process and his own experiences in running a community echocardiography service in South Devon.**

## Introduction

**M**any general practitioners (GPs) have either expressed an interest or are currently carrying out echocardiography in hospital out-patient clinics or in general practice clinics.

There is no current minimum qualification required before carrying out an echocardiogram. The Department of Health in conjunction with the Royal College of General Practitioners has issued guidelines for the appointment of general practitioners with special interests in echocardiography which state: "Either the GP will have demonstrated competency through sustained delivery of an equivalent service locally or the GP will have obtained accreditation in adult echocardiography from the British Society of Echocardiography (BSE). The latter involves an examination and assessment of practical skills. The GP must undertake an agreed minimum number of satisfactory echocardiograms per year."<sup>1</sup>

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## Current practice

I contacted several GP colleagues who currently carry out echocardiography for their views. Their thoughts are expressed below.

- A general expression of concern is that echocardiograms should not be performed unless there has been proper training and experience
- There is a need for a basic minimum number of echocardiograms to be performed before commencing an echocardiography service



**‘Candidates will be required to keep a log book of 200 cases that they have performed and reported over two years’**

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and during each subsequent year so GPs can "keep the eye in"

- There needs to be provision of adequate in-service training and validation
- There should be minimum quality standards for equipment used
- There should be a forum for peer review/discussion.

Some of these factors are now provided by the current BSE structure of training and accreditation. There was concern, however, that the BSE standards required for accreditation and re-accreditation were too onerous and some aspects of them more geared to teaching hospitals or centre of excellence standards rather than

for community echocardiography services.

An additional problem was the increasing demand for echocardiography that has been further promoted by the National Service Framework for Coronary Heart Disease (NSF for CHD),<sup>2</sup> the National Institute for Clinical Excellence (NICE) guidelines on heart failure management<sup>3</sup> and the proposals of the new General Medical Services contract whereby all patients with CHD and suspected heart failure are expected to be referred for an echocardiogram and with financial incentives to do so from April this year.<sup>4</sup>

Unfortunately, there is no corresponding increase in echocardiographers but a national shortage, and so a process to improve this situation was urgently needed.

## Accreditation in Community Echocardiography (ACE)

The British Society of Echocardiography (BSE) was aware of this situation and decided to explore the possibility of a new form of accreditation specifically to meet the needs of the 'community'.

After considerable discussion and consultation the new process has been agreed by the BSE council and the first examinations will take place this October. The scheme is mainly designed for GPs but will also be open to others with a good foundation in cardiovascular medicine, such as heart failure nurses and cardiac physiologists (formerly technicians).

The new form of accreditation will expect a more basic knowledge of physics, in particular, as it relates to the

production of good images, getting the best out of the echocardiography machine and the avoidance of errors. The syllabus will be less detailed than for full BSE accreditation.

Candidates will be required to keep a log book of 200 cases that they have personally performed and reported during a maximum of two years. There will be an emphasis on left ventricular function assessment and native valve disease. Additionally they will collect 10 cases to be recorded on video/CD that demonstrate the spectrum of pathologies they have examined.

The process will need to be supervised and certified by a suitably BSE qualified echocardiographer and is likely to be based in a district hospital echocardiography department.

The examination will be in two parts:

- A theory section comprising 25 multiple choice questions, each with five possible answers. Five questions will cover physics, 10 will cover general echocardiography and 10 will cover echocardiography as relevant to community issues
- The second section will involve looking at 10 video case studies and answering questions on the content.

Passing the exam and collecting the cases for the log book and the video collection for submission to the BSE will need to be completed within the two-year period.

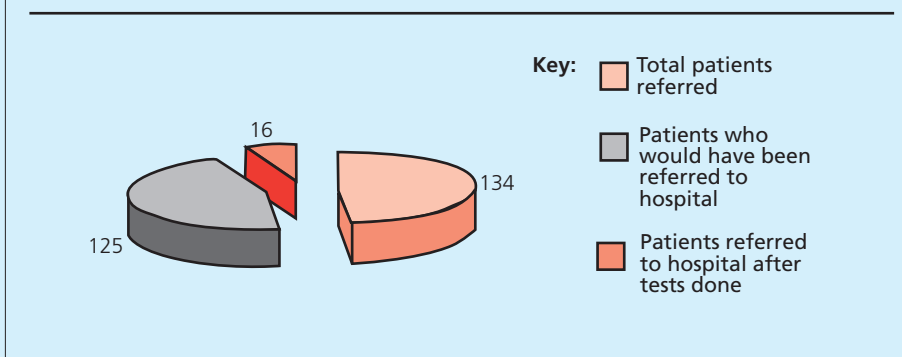
Any practitioner wishing to apply for this process may obtain a full information package by contacting the BSE via [d.appleby@bcs.com](mailto:d.appleby@bcs.com) or by writing to British Society of Echocardiography, 9 Fitzroy Square, London, W1T 5HW.

### Community echocardiographers

There is a strong need for suitably experienced echocardiographers to carry out assessments on patients in the following areas:

- clinical heart failure

**Figure 1.** An analysis of the patients referred during the first three months of the Torbay area community echocardiography scheme



- undiagnosed murmurs
- undiagnosed shortness of breath
- atrial fibrillation
- hypertension.

Such patients should not receive a sub-standard echocardiographic examination and echocardiographers will need training and experience equivalent to those working in hospitals but with their expertise limited to certain areas.

This modular approach to training and accreditation should enable such echocardiographers to be well-trained and experienced but not require them to have to learn about more complicated subjects, such as prosthetic valves, stress echocardiography, contrast echocardiography or sophisticated diastolic function.

With the increasing demands for echocardiography it is hoped that local Primary Care Trusts (PCTs) will recognise the value of training general practitioners with special interests (GPSIs) in this area so that community echocardiography services can be set up allowing assessment of patients with (suspected) heart failure, in particular. This would have a sparing effect on hospital referrals and potentially reduce admissions by guiding appropriate treatment.

A formal contract between the commissioners (usually the PCT), the community echocardiographer and the supervisory department would be

required and would define the funding available to the community echocardiographer, and the supervising echocardiography department.

### Quality control and supervision

Community echocardiographers will need to be linked to local hospital echocardiography departments for ongoing continuing personal development, peer review, case discussion and quality control.

Community echocardiographers will be required to produce an annual audit of the cases examined, with a breakdown into different areas studied and the frequency of abnormal results. In cases of inappropriate referrals, these can be analysed and feedback given to the referrer. The need for local education events to involve local GPs and other agencies would thus become clear.

In some cases an exchange system whereby the community echocardiographer swapped places with a hospital echocardiographer for a number of weeks a year could be helpful for their education. This would need to be funded, as supervision of work would be necessary.

It is envisaged, however, that some community echocardiographers would run their clinics in hospital echocardiography departments possibly for a different patient group. In these circumstances, free exchange of ideas, exper-

**Table 1.** Cardiology out-patient referrals. South Devon practice totals

Year	Total number of patients referred	Total number of patients attended
2000/2001	2,317	2,092
2001/2002	1,948	1,713
2002/2003	1,919	1,526
2003/2004	1,818	1,474

rience and discussion of interesting cases would be expected, as is usual in echocardiography departments.

### Local experience

In 1999/2000 I started a community echocardiography service and cardiac diagnostic service in the Torbay area that was supported by the local health authority and later the Torbay PCT. This service carries out approximately 500 echocardiograms a year (in addition to exercise electrocardiogram [ECG] testing and ambulatory ECG analysis). This has been associated with a substantial reduction in hospital referrals. Figure 1 shows an analysis of the patients referred during the first three months of the scheme according to a GP questionnaire and demonstrates an 87% reduction in hospital referrals.

Further analysis of the local district hospital out-patient referral data over the past four years (see table 1) suggests a sparing effect on GP referrals to cardiology out-patients that has increased proportional to the increase in referrals to the community service although other factors may have played a part in this change.

The service takes referrals from all practices within the Torbay PCT (population 140,000) and the waiting time has been kept to less than a month. The results of this scheme suggest that one GPSI could potentially provide sufficient echocardiographic services to meet the needs of an average PCT.

### Other models of training

The government is keen to develop the role of GPSIs and practitioners with a special interest (PWSI). The following is taken from their website.<sup>5</sup>

"The purpose of this work is to keep patients out of hospital by developing the roles of GPs, nurses and allied health professionals (AHPs). It will concentrate primarily on the interface between primary and secondary care and will strive to develop integrated services across specialties. It will improve access to specialist services in particular for those patients who would previously have been referred to secondary care or who require chronic disease management.

The development of special interest needs basic training either in general cardiology or specifically in echocardiography. Apart from local and in-house training, intensive training courses, diploma courses, local or remote mentoring supervision, would all contribute to the ultimate goal that we have well-trained and experienced practitioners in the area of echocardiography. The support of local PCTs to facilitate such development is essential to enable enthusiastic GPs, nurses and allied health professionals to achieve this goal.

### Conclusion

The demand for better and more prompt local care for cardiac patients is very well recognised by the public, the medical profession and the gov-

ernment alike. To meet such demand, GPs can play a valuable role, particularly in providing echocardiography if they are appropriately trained and supported. The new form of accreditation from the BSE provides a robust means of ensuring standards are achieved and maintained and should facilitate this process.

### Acknowledgement

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### Conflict of interest

None declared.

### Editors' note

This is the third of three articles on community echocardiography. See the consensus statement on 'Community echocardiography for heart failure' (pages 399-402) and a second article on echocardiography in the community by Gerald Partridge (pages 403-04).

### References

1. Department of Health. [www.doh.gov.uk/pricare/gp-specialinterests/gpwsiechocardiography.pdf](http://www.doh.gov.uk/pricare/gp-specialinterests/gpwsiechocardiography.pdf)
2. Department of Health. National Service Framework for Coronary Heart Disease. London: Department of Health, 2000 (chapter 6).
3. National Institute for Clinical Excellence. Clinical guideline 5. Management of chronic heart failure in adults in primary and secondary care. July 2003 ISBN: 1-84257-323-3
4. Department of Health. <http://www.bma.org.uk/ap.nsf/Content/QualityOutcomes%5Cclinical%5Cchd>
5. Department of Health. <http://www.gpwsio.org/information/whatis.htm>

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