

The management of heart failure: are we doing our best?

A study has indicated that neither geriatricians nor general practitioners adhere to guidelines for treatment of heart failure. Professor Peter Weissberg from the British Heart Foundation talks to Dawn Powell about the results of the survey and improving the management of heart failure in the UK.

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650,000 people in the UK have heart failure and a further 225,000 have probable heart failure. How do we know that this proportion of people have probable heart failure and why have they not been officially diagnosed?

We do not know exactly how many people have heart failure because we do not have a nationalised database in the health service that collates all the information on patients with heart failure. We have to rely on local surveys, so the figures we do have are good guesstimates rather than definitive statistics.

Another issue is that heart failure is a very difficult diagnosis to make. Some people present with severe heart failure and nobody would doubt that they have the condition, but the diagnosis is less clear in people at the other end of the spectrum. A patient who has symptoms of mild-to-moderate heart failure (breathlessness or swollen ankles) may not actually have heart failure. Their symptoms might relate to a different condition. Even if doctors use all available investigations, it can be difficult for them to know for certain that the patient has heart failure.

Do doctors need to make patients more aware of the symptoms of heart failure?

I do not think we should be worried that there are thousands of people in the community who have symptoms of heart failure and are failing to see a doctor about them. If people have such symptoms, by and large, they will go to their doctor because they will be severe enough for them to want treatment. There are patients who choose to ignore their symptoms, but you get that with any condition. Certainly, most patients with severe heart failure will be seeing a doctor of some sort.

What can doctors do to prevent patients from developing heart failure in the first place?

The majority of heart failure in the UK is secondary to coronary heart disease. So all the measures that are now being implemented to prevent coronary heart disease (eg, vascular checks for everyone aged over 40 years) will affect heart failure. If we prevent people from having heart attacks, we

will stop them from developing heart failure. But, improved treatment for heart attacks also means that more patients will survive a heart attack and go on to develop heart failure. The problem of heart failure is not going to go away in the medium term—partly because of the success in stopping people dying of coronary heart disease.

The SHAPE survey¹ found that 69% of primary-care doctors in the UK often diagnose heart failure on the basis of the patient's signs and symptoms alone. Should they be using additional tests?

If someone has severe heart failure, the diagnosis is obvious. Therefore, using only signs and symptoms is perfectly legitimate in that group of patients. However, signs and symptoms will not tell you what the cause of heart failure is and whether it is reversible. The problem is at the mild end of the spectrum, in which more people are diagnosed with heart failure than actually have it. Swollen ankles and breathlessness, which are symptoms of heart failure, can be caused by many things. You need the other tests to confirm that the person really does heart failure.

What can be done to improve quality of life for a patient with heart failure?

There are two things—the first is optimum treatment. Doctors should try to ensure that they give all the drugs that have shown benefit in heart failure, and give them at the optimum doses. The right treatment regimen will improve symptoms, if not get rid of them entirely.

Secondly, patients with heart failure benefit from rehabilitation. But, despite the British Heart Foundation promoting rehabilitation for patients with heart disease for many years, primary-care trusts are reluctant to fund it. So if doctors are lucky enough to have access to such services locally, they should ask if these services are prepared to take on heart-failure patients. Exercise-based rehabilitation is only appropriate for patients with mild-to-moderate heart failure. Patients with severe heart failure cannot exercise.

The SHAPE study found that doctors do not always give the recommended treatment (eg, β -blockers) and if they do, they do not always give the optimum doses. Do you think this finding is true and if so, why the apparent reluctance?

This study was not a trial; it was not an audit. Basically, it was based on answers from doctors who bothered to complete a questionnaire. It could be very badly skewed. The authors do admit that the study is limited because of the relatively low response rate. At most, it is possibly an indicator of the way things are. The other point that should be made is that this survey received support from drug companies. While I do not doubt the integrity of the investigators, you have to consider the motivation behind the study. Therefore, I am a bit circumspect about how representative it is.

The average age of the doctors who responded is not mentioned, but their age is relevant. Doctors my age or older were all taught that β -blockers killed people with heart failure and that you should never prescribe them. Also, the very early angiotensin-converting-enzyme (ACE) inhibitors were very difficult to use in heart-failure patients. Getting the dose wrong could cause serious problems. Doctors who remember the negative reputations of β -blockers and ACE inhibitors are

cautious. They have had to do a complete rethink about what they were previously taught. But, if the results of the study are to be believed, I am disappointed that they are reverting to medical practice from 20 years ago rather than going by today's evidence base. I think if you asked young doctors about their prescribing habits, you would get a more positive outcome.

Another reason for this apparent reluctance may be concern over polypharmacy in elderly patients. We do not have any data for the number of elderly patients who are admitted to hospital because of the side-effects of taking multiple drugs, but it is a constant problem. Doctors are, therefore, understandably wary about giving elderly patients new drugs, particularly at high doses.

The authors of the survey suggest that national and international societies have failed to make non-cardiologists aware of guidelines on heart failure. Do you agree and, if so, what could be done to improve the situation?

The trouble is that doctors at the moment are bombarded with guidelines. I am sympathetic to the generalist doctor (eg, a primary-care physician or geriatrician) because they have to be up-to-date on many guidelines, all for different

diseases. Also, guidance on a particular condition can vary. For example, European recommendations often conflict in some way with British guidelines.

The arbiter in all of these situations ought to be NICE. But, NICE's opinion can often be at variance with other experts' opinions. It would be easy if there was only one guideline published on each condition. If you did a web search on heart failure, you would probably find half a dozen different guidelines. Having said that, guidelines are now easily accessible to all doctors. What this survey does show is that if a patient with heart failure is to be treated properly, then they should be seen by a specialist. I think most people would agree with that.

Does the NHS have the resources to refer all patients with heart failure to a specialist?

No, the UK does not have enough specialists. But, a lot of patients—particularly in geriatric departments—will first present as an inpatient. This provides an opportunity to get a specialist cardiology opinion to guide investigation and future treatment. We have more cardiologists than ever, so there is no reason why many patients cannot be referred to a specialist.

The risk of heart failure increases with age, and most patients are older than 70 years. Should geriatricians develop a specialist interest in the condition?

It would be highly appropriate for some geriatricians to develop an interest in heart failure. There is no reason why geriatricians cannot have an interest in a particular organ or disease area, just like a general practitioner. But if a geriatrician is not confident about the most appropriate treatment for a heart-failure patient, then they should seek a specialist's opinion. Many very elderly patients have several conditions simultaneously and geriatricians are skilled at balancing the treatment needs for each condition.

What has been the most important development in the treatment of heart failure during the last two decades?

The biggest advance has been in medication. Drugs such as β -blockers have been around for a long time, but we now understand how best to use them in heart failure—and we can prolong life. 20 years ago, we had drugs that were quite good at treating the symptoms of heart failure but did not do anything to lifespan. Giving digoxin and diuretics often improved the symptoms of heart failure but not the long-term

outlook. With β -blockers, ACE inhibitors, and spironolactone *et cetera*, you can prolong someone's life quite substantially as well as make them feel better.

Resynchronisation therapy (use of a pacemaker) to improve electrical activation of the heart has been an incremental step in the right direction, improving both symptoms and outlook, but it is not appropriate for all patients with heart failure.

We now have newer drugs, such as eplerenone. How do these treatments affect the management of heart failure?

Eplerenone is an interesting drug, but it will take time to accumulate the evidence-base on which its role in heart failure will be established.

Patients with heart failure have a poor prognosis. In the short term we can treat them optimally. But, what can we do in the long-term?

A lot of research focuses on trying to understand what happens to the heart muscle when it starts to fail, which might lead to new treatments. Regenerative medicine is another long-term possibility—for example, using stem cells to repair a damaged heart. At the moment, heart damage is irreversible, but if we

could make stem cells, particularly adult stem cells, differentiate into new heart issue, we may have a chance of repairing some of the damage and even reverse heart failure. This type of treatment is a long way off.

Even though studies on stem cells for heart failure are being done now, it is likely to be decades rather than years before stem cells become a realistic option. The other element is devices. At the severe end of heart failure, resynchronisation therapy and mechanical-assist devices (mechanical hearts) are improving all the time, with transplantation remaining a successful but scarce option.

Are heart transplants feasible for elderly patients?

They are a possibility, but a lot of other factors have to be taken into account. If the patient has bad lungs and early dementia, then a transplant is not suitable. It depends on their overall medical condition more than their age.

Reference

1. Remme W, McMurray J, Hobbs R, et al. Awareness and perception of heart failure among European cardiologists, internists, geriatricians, and primary care physicians. *Eur Heart J* 2008; **29**: 1739–52