NICE guidance for chronic heart failure

The NICE guidance *Chronic heart failure: management of chronic heart failure in adults in primary and secondary care* was published last year and replaces the 2003 version. New and updated recommendations are included on diagnosis, pharmacological treatment, monitoring and rehabilitation.

**Professor Martin Cowie** Professor of Cardiology, National Heart & Lung Institute, Imperial College London, South Kensington Campus, London SW7 2AZ; Honorary Consultant Cardiologist, Royal Brompton Hospital, Sydney Street, London SW3 6NP

**email:** m.cowie@imperial.ac.uk

NICE has updated its guidance on the management of chronic heart failure.¹ The principal changes from the 2003 guideline include more directive advice on how to improve the quality and timeliness of diagnosis, stronger encouragement to use β-blockers, a greater emphasis on rehabilitation, and better access to specialist advice, particularly at the time of diagnosis, admission to hospital, and when symptoms do not respond to first-line therapy with diuretic, ACE inhibitor and β-blocker.

The guideline is also available in a public version and a detailed full version, allowing patients, families and professionals to delve into the evidence base to the depth they wish. The sections entitled “from evidence to guidelines” gives some insight into the panel’s deliberations on the evidence, which was also tempered by input from a large number of registered stakeholders.

**Diagnosis**

The original NICE guideline in 2003 was viewed as unnecessarily tentative by many in stating that natriuretic peptides (BNP or NT-proBNP) should be used where available. This problem has been rectified in the new guideline, with very strong recommendations on how a non-specialist can triage individuals with new symptoms to appropriate investigation (Figure 1). After proper history and clinical examination, those with a past history of myocardial infarction (MI) or those with a high plasma BNP or NTproBNP value (above 400 pg/ml or 2000 pg/ml, respectively) should be referred within two weeks for echocardiography — with a specialist determining whether heart failure is present, and its probable aetiology, precipitating factors, type of cardiac dysfunction, correctable causes, relevant comorbidity, and prognosis. Those with no history of MI but an elevated plasma BNP or NTproBNP value (above 100 pg/ml or 400 pg/ml, respectively) should be referred within six weeks for such assessment. Those with a low BNP or NTproBNP value (below 100 pg/ml or 400 pg/ml, respectively) are unlikely to have heart failure and should be considered for other investigations.

The authors of the guidance should be commended for giving these diagnostic recommendations some bite: all clinicians will require access to natriuretic peptide testing for diagnostic purposes and there will be a timelimit for imaging. For too long, heart failure diagnosis has been slow and of low priority to many doctors, and this guideline will help improve this situation. A Healthcare Commission Audit published in 2007² showed that only 52% of healthcare communities had good or excellent diagnostic services — so there is much room for improvement.

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There may be some debate about the decision cut points chosen, but they were chosen to be in line with the recent recommendations from the European Society of Cardiology. The principle of using natriuretic peptides to help identify patients likely to have heart failure is sound, but in my opinion the absolute levels for decision points should not be taken too literally — clinical judgement must always temper the interpretation of test results. This is the situation where access to a specialist is key to firming up the diagnosis and setting the initial management plan in place.

Who is a specialist?

This is always a contentious issue, but the NICE committee
finally came down on a pragmatic definition of a "physician with a subspecialty interest in heart failure (often a consultant cardiologist) who leads a specialist multidisciplinary heart failure team of professionals with appropriate competencies from primary and secondary care. The team will involve, where necessary, other services (such as rehabilitation, tertiary care and palliative care) in the care of individual patients.” This makes the point that the diagnosis and management plan of a patient with a life-threatening disease should involve someone with considerable experience of managing the condition. Ideally, a cross-sector multidisciplinary team should be available for consultation in each district.

How has treatment changed?

There are few new data on how best to manage heart failure due to preserved systolic function (previously often termed “diastolic heart failure”). The guidance suggests managing the comorbid conditions such as high blood pressure, ischaemic heart disease and diabetes mellitus, and notes that such patients will usually be managed with a low to medium dose of loop diuretic. For patients with systolic heart failure (“low EF” heart failure), the algorithm (Figure 2) still shows that ACE inhibitors and β-blockers are first line therapies, with angiotensin receptor blocker blockers (ARBs) only if ACE inhibitors are not tolerated. Importantly, if the patient is still symptomatic despite such therapy, a more specialist assessment is advised, with consideration of adding to pharmacological therapy with either an ARB, aldosterone antagonist, or a combination of nitrate and hydralazine. Such additions are likely to require more frequent monitoring.

Under use of β-blockade is tackled by three strong recommendations. Older adults, and patients with peripheral vascular disease, erectile dysfunction, diabetes mellitus, interstitial pulmonary disease and chronic obstructive airways disease without reversibility are specifically mentioned as those who should be considered for such therapy. A “start low, go slow” approach is recommended, with clinical review after each titration. The committee also recommends switching stable patients already taking a β-blocker for another reason, such as angina or hypertension, to a β-blocker licensed for heart failure (ie, carvedilol, bisoprolol, metoprolol or nebivolol [Nebilet]).

Importantly, a subset of patients with symptoms despite ACE inhibitors and β-blockers, and with a broad QRS complex on ECG should be considered for cardiac resynchronisation therapy (CRT). An implantable defibrillator should be considered for those at high risk of sudden death, with reference to the relevant technology assessments from NICE. This device guidance is looking increasingly dated and is likely to be reviewed by NICE within the next two years. It is, however, useful to have such therapies on the algorithm, at least to remind physicians that such therapies may have a role to play and to seek advice on such decisions.

Guidelines are always hostage to timing, and the publication of the results from SHIFT (ivabradine [Procoralan]) and EMPHASIS (eplerenone [Inspra]) have changed the evidence base, but do not destroy the value of the recommendations as they stand. Clinicians will have to integrate new evidence into the algorithm, and undoubtedly updates of international guidelines will occur in the near future that can take account of this new evidence.

Monitoring

The 2003 guideline made strong recommendations on the need for periodic review of patients with heart failure, and the update does likewise. Monitoring should include a clinical assessment, medication review, and a check of renal function as a minimum. A new recommendation in the 2010 guidance is that when a patient is admitted to hospital because of heart failure, a specialist should provide advice on the management plan. Hospitalisation is a very useful opportunity to fine tune therapies, educate patients and their families, and to review other possible treatment options or the need for increased palliation of symptoms. Natriuretic peptides are also recommended for monitoring for some patients in specialist practice, particularly for those recently discharged from hospital or in whom uptitration of medication is proving problematic.
Discharge planning

As in the previous guideline, problems around the time of hospital discharge are flagged up, with reiteration of the previous recommendation that patients should generally only be discharged from hospital when their clinical condition is stable and the management plan is optimised. The timing of discharge should take into account patient and carer wishes, and the level of care and support that can be provided in the community. Since 2003 this level of support has improved in many, if not all, areas but this does not obviate the need for good communication and a clear explanation to the patient and family (and primary care team) of the plans. Repeatedly, we are told that accessing healthcare is confusing and difficult for many patients, and improvement in post-discharge care is much needed.
Rehabilitation

A new recommendation is that patients with stable heart failure should be offered a supervised group exercise-based rehabilitation programme designed for such patients. This should include a psychological and educational component, and could be incorporated within an existing cardiac rehabilitation programme. This recommendation is picked up in the “Commissioning Pack” for Cardiac Rehabilitation, and will lead to pressure locally on services to include heart failure patients. That NHS Improvement has identified both heart failure and cardiac rehabilitation as priorities for 2010/11 is helpful, but it will be down to those on the ground to drive such changes through at a time of constrained resource and constant cries of “quality but with productivity.”

Force of recommendations?

NICE will publish quality standards for heart failure this year to help in the commissioning of high quality services — probably picking up on the key (and other) recommendations in the guideline and related policy initiatives. With increased commissioning decisions being taken by GPs, it will be them that will judge the quality of services provided across sectors of care, and they should be able to pick up inequalities across an area — such as for elderly patients. It is likely that the Quality and Outcomes Framework will continue to provide rewards for the use of ACE inhibitors, β-blockers, and ECHO in those with a confirmed diagnosis, and will continue to bolster high quality care. For secondary care, readmission within 30 days will be penalised, which should focus attention on discharge planning, communication across sectors of care, and optimisation of clinical state prior to discharge. The national HF audit, with increased effort on behalf of some laggard acute trusts, should also support commissioning decisions and identify problem areas.

Missed opportunities?

I warmly endorse the NICE update on chronic heart failure. It has firmed up some of the weaker recommendations in the previous version, and should have a major impact on diagnostic quality and speed. The increased workload for specialist and rehabilitation services will be a major challenge. It will be vital that GP commissioners help facilitate the introduction of the new recommendations — with assistance in due course from the Quality Standards. If implemented, these guidelines will help drive standards up for many hundreds of thousands of patients living with this condition — helping to improve length and quality of life. Within the constraints set by the scope of the guideline, the committee should be congratulated on producing an evidence-based document that has some recommendations with “teeth”. Time will tell as to whether resource will line up behind these recommendations, but local champions for heart failure now have another tool to help drive up standards.

Professor Cowie provides consultancy advice to a number of companies that produce drugs and devices for the treatment of heart failure. He owns no stocks and shares in any such company.

References

3. Task Force for Diagnosis and Treatment of Acute and Chronic Heart Failure 2008 of European Society of Cardiology. ESC guideline for the diagnosis and treatment of acute and chronic heart failure 2008. Eur Heart J 2008; 29: 2388–442