NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Guideline scope

Chronic heart failure in adults: diagnosis and management

Topic

This guideline will update the NICE guideline on chronic heart failure (CG108) as set out in the update decision.

For more information about why this guideline is being developed, and how the guideline will fit into current practice, see the context section.

Who the guideline is for

- People using services, families and carers.
- Healthcare professionals in primary and secondary care.

NICE guidelines cover health and care in England. Decisions on how they apply in other UK countries are made by ministers in the Welsh Government, Scottish Government, and Northern Ireland Executive.

Equality considerations

NICE has carried out an equality impact assessment [add hyperlink in final version] during scoping. The assessment:

- lists equality issues identified, and how they have been addressed
- explains why any groups are excluded from the scope.

The guideline will look at inequalities relating to people who are elderly and frail, and people living in rural areas with limited access to services.

1 What the guideline is about

1.1 Who is the focus?

Groups that will be covered

- Adults (18 and older) with symptoms or a diagnosis of chronic heart failure (including heart failure with reduced ejection fraction and heart failure with preserved ejection fraction).

Groups that will not be covered

- Diagnostic screening for heart failure in people who are asymptomatic.
- People with isolated right heart failure.
- Heart failure in people having chemotherapy.
- Heart failure in people having treatment for HIV.
- Heart failure in women who are pregnant.

1.2 Settings

Settings that will be covered

- Primary and secondary NHS-commissioned care including referral to tertiary care.

1.3 Activities, services or aspects of care

Key areas that will be covered

Areas from the published guideline that will be updated

- Diagnosing heart failure.
  - Role of circulating biomarkers (including natriuretic peptides).
  - Echocardiography and cardiac MRI.
- Managing chronic heart failure.
  - Initiation and sequencing of pharmacological therapies.
  - Mineralocorticoid receptor antagonists.
  - Fluid balance (optimum fluid and salt intake).

- Rehabilitation.
  - Home-based rehabilitation packages that include an exercise element.
- Monitoring heart failure.
  - Role of biomarkers (including natriuretic peptides).
  - Role of echocardiography.
  - Distance monitoring including telemonitoring.
  - Self-monitoring
- Referral for invasive procedures:
  - Coronary revascularisation (including coronary artery bypass graft and angioplasty).
- Referral and approach to care.
  - Multidisciplinary team.
  - Transfer of care between secondary and primary care services.
- Information and support.
  - Information and support on diagnosis and prognosis for people with chronic heart failure, their families and carers.
- Supportive and palliative care.
  - Domiciliary oxygen therapy.
  - Parenteral and intravenous diuretics.
  - Criteria for withdrawing treatment and device inactivation.

Areas not in the published guideline that will be included in the update

1 How to manage chronic heart failure in different subgroups.
  - People with iron deficiency.
  - People with chronic kidney disease (eGFR less than 60 ml/min/1.73m^2 with or without markers of kidney damage).
  - People with chronic heart failure and secondary atrial fibrillation.
  - People aged over 75.

2 Pharmacological therapies.
  - Beta-blockers in people with chronic heart failure and secondary atrial fibrillation.

3 Palliative care.

- Referral to palliative care.

4 Monitoring heart failure.

- Role of cardiac MRI.

Areas that will not be covered

Areas from the published guideline that will not be updated

1 Diagnosing heart failure.

- Symptoms and signs in diagnosing heart failure.

2 Pharmacological therapies.

- Isosorbide/hydralazine.
- Angiotensin-converting enzyme (ACE) inhibitors.
- Angiotensin-II receptor antagonists (ARBs).
- Diuretics.
- Beta-blockers in the absence of secondary atrial fibrillation.
- Calcium-channel blockers
- Digoxin
- Amiodarone.

3 Monitoring.

- Clinical review.
- Serum digoxin.

4 Lifestyle.

- Sexual activity, vaccination and air travel.

Recommendations in areas that are not being updated may be edited to ensure that they meet current editorial standards, and reflect the current policy and practice context.

Areas from the published guideline that will be removed

1 Goals of treatment (symptom reduction, functional ability and hospitalisation).

2 General.

- Age.
- Gender.

3 Pharmacological agents.
- Aspirin.
- Statins.

4 Heart failure caused by valve disease.

5 Management of depression and anxiety.

6 Benefit of other therapies such as homeopathy, reflexology, hydrotherapy, crystal therapy and acupuncture.

7 Referral for invasive procedures.
- Implantable cardiac defibrillators.

8 Valve surgery

9 Non-NHS agencies

10 Lifestyle.
- Smoking and alcohol.

1.4 Economic aspects

We will take economic aspects into account when making recommendations. We will develop an economic plan that states for each review question (or key area in the scope) whether economic considerations are relevant, and if so whether this is an area that should be prioritised for economic modelling and analysis. We will review the economic evidence and carry out economic analyses, using an NHS and personal social services (PSS) perspective, as appropriate.

1.5 Key issues and questions

While writing this scope, we have identified the following key issues, and key questions related to them:

1 Diagnosing heart failure.

1.1 What is the diagnostic accuracy of N-terminal pro-B-type natriuretic peptide (NTproBNP) versus B-type natriuretic peptide (BNP) for heart failure?

1.2 What are the diagnostic thresholds for BNPs in people with heart failure and chronic kidney disease?

1.3 What are the diagnostic thresholds for BNPs in people with heart failure and atrial fibrillation?

1.4 What is the diagnostic accuracy of echocardiography and cardiac MRI versus echocardiography for heart failure?

2 Managing chronic heart failure.

2.1 In people with CHF who have received one pharmacological treatment, what is the next most clinically and cost effective option?

2.2 What is the clinical and cost-effectiveness of pharmacological interventions (erythropoietin and intravenous iron) in people with chronic heart failure and iron deficiency?

2.3 How will the use of pharmacological interventions for people with CHF be different in people who also have CKD?

2.4 What is the clinical and cost effectiveness of beta-blockers in people with chronic heart failure and secondary atrial fibrillation?

2.5 What is the comparative clinical and cost effectiveness of mineralocorticoid receptor antagonists and angiotensin II receptor antagonists (ARBs) in people with symptomatic chronic heart failure who are having treatment with:

- a beta-blocker and an ACE Inhibitor or
- a beta-blocker alone because of intolerance to ACE inhibitors?

2.6 Is there a role for coronary revascularisation with coronary artery bypass grafting or angioplasty) in people with chronic heart failure?

3 Rehabilitation in chronic heart failure.

3.1 What is the clinical and cost-effectiveness of home-based rehabilitation (that includes an exercise element) for people with chronic heart failure?

4 Monitoring heart failure.

4.1 What is the clinical and cost effectiveness of biomarker-based monitoring compared with standard care?

4.2 What is the clinical and cost effectiveness of repeated echocardiography for the monitoring of chronic heart failure compared with standard care?

4.3 What is the clinical and cost effectiveness of cardiac MRI in the monitoring of chronic heart failure compared with standard care?

4.4 What is the clinical effectiveness of salt and fluid restriction for people with chronic heart failure?

4.5 What is the efficacy and safety of distance monitoring (including telemonitoring) compared with outpatient monitoring in people with chronic heart failure?

4.6 What is the efficacy and safety of self monitoring compared with outpatient monitoring in people with chronic heart failure?

5 Information and support.

5.1 What are the specific needs to be considered when communicating a diagnosis and consequent prognosis, to people with chronic heart failure, their families and carers?

6 Referral and approach to care.

6.1 Which members of the multidisciplinary team should be involved in the care of people with chronic heart failure?

6.2 How should the transition between secondary and primary care be managed in people with chronic heart failure be managed?

7. Palliative care.

7.1 What criteria should be used to refer people with chronic heart failure to palliative care and when should they be referred?

7.2 What is the effectiveness of domiciliary oxygen therapy in people with chronic heart failure who are having palliative care?

7.3 What is the comparable effectiveness of intravenously delivered diuretics and subcutaneous delivery, in people with chronic heart failure who are having palliative care?

7.4 What criteria should be taken into account when deciding on the timing of the discussion about the deactivation of a defibrillator?

The key questions may be used to develop more detailed review questions, which guide the systematic review of the literature.

1.6 Main outcomes

The main outcomes that will be considered when searching for and assessing the evidence are:

1 Mortality.

2 Hospitalisation.

3 Re-admission to hospital.

4 Quality of life.

5 Adverse events.

2 Links with other NICE guidance, NICE quality standards, and NICE Pathways

2.1 NICE guidance

NICE guidance that will be updated by this guideline

- Chronic heart failure in adults: management (2010) NICE guideline CG108.

NICE guidance about the experience of people using NHS services

NICE has produced the following guidance on the experience of people using the NHS. This guideline will not include additional recommendations on these topics unless there are specific issues related to chronic heart failure:

- Patient experience in adult NHS services (2012) NICE guideline CG138
- Medicines adherence (2009) NICE guideline CG76

2.2 NICE quality standards

NICE quality standards that may need to be revised or updated when this guideline is published

- Chronic heart failure in adults (2011) NICE quality standard 9

2.3 NICE Pathways

When this guideline is published, the recommendations will update the current NICE Pathway on chronic heart failure. NICE Pathways bring together all related NICE guidance and associated products on a topic in an interactive topic-based flow chart.

Other relevant NICE guidance will also be added to the NICE Pathway, including:

- Implantable cardioverter defibrillators and cardiac resynchronisation therapy for arrhythmias and heart failure (review of TA95 and TA120) (2014) NICE technology appraisal guidance 314
- Ivabradine for treating chronic heart failure (2012) NICE technology appraisal guidance 267
- Implantation of a left ventricular assist device for destination therapy in people ineligible for heart transplantation (2015) NICE interventional procedure guidance 516
- Insertion and use of implantable pulmonary artery pressure monitors in chronic heart failure (2013) NICE interventional procedure guidance 463
- Short-term circulatory support with left ventricular assist devices as a bridge to cardiac transplantation or recovery (2006) NICE interventional procedure guidance 177

3 Context

3.1 Key facts and figures

Chronic heart failure is a complex clinical syndrome of symptoms and signs that suggest the efficiency of the heart as a pump is impaired. It is caused by structural or functional abnormalities of the heart. The British Heart Foundation's 2014 report Cardiovascular disease statistics reported that about 550,000 people in the UK were living with heart failure in 2013. Both the incidence and the prevalence of heart failure increase with age, with an average age at first diagnosis of 76 years.

The prevalence of heart failure is expected to rise in future as a result of an ageing population, improved survival of people with ischaemic heart disease and more effective treatments for heart failure.

3.2 Current practice

This guideline will update NICE's current guidance on chronic heart failure in adults (2010). Uptake of that guidance appears to be good (see the NICE website for uptake information). The Department of Health's Cardiovascular disease outcomes strategy (2013) noted that prescribing of ACE inhibitors,

ARBs and beta-blockers remains suboptimal, and that improved use of these drugs has the potential to prevent around 190 deaths per year. This update will review evidence on the clinical and cost effectiveness of these therapies.

The Cardiovascular disease outcomes strategy also aims to increase the provision of cardiac rehabilitation from 4% to 33% of people with chronic heart failure. This update will address specific evidence on the content and delivery of cardiac rehabilitation in heart failure.

4 Further information

This is the draft scope for consultation with registered stakeholders. The consultation dates are 20 January to 17 February 2016.

The guideline is expected to be published in March 2018.

You can follow progress of the guideline.

Our website has information about how NICE guidelines are developed.