



# Understanding heart failure guidelines

## Clinical management

### What is this guide, and who is it for?

The Heart Failure Policy Network has developed this guide as a lay summary of key principles in the European Society of Cardiology (ESC) guidelines, England's National Institute for Health and Care Excellence (NICE) guidelines and position statements by the Heart Failure Association of the ESC. The guide seeks to raise awareness of key elements of best practice in the care and management of heart failure (HF). It will be of interest to non-specialist audiences such as people with HF, patient advocates, non-cardiology healthcare professionals, clinical advocates of best practice and health system reform, organisational leaders, and political or public officials.

**Guidelines are documents with suggestions or recommendations for care that derive from scientific evidence to aid patients and healthcare professionals in their decision-making – they are not prescriptive documents.** Care must be tailored to each person's needs through careful collaboration between the person with HF, their family/carers and the HF care team.

**This document neither replicates nor supersedes established clinical guidelines for the purpose of formal professional training or accreditation, patient therapeutic education or clinical decision-making.** Clinicians, patients and service managers should consult European and national guidance as appropriate.

# Clinical management

**Heart failure (HF) is a lifelong condition that requires continuous monitoring and care.**<sup>1</sup> The aims of HF care include managing symptoms, preventing disease progression, maximising heart capacity, preventing hospitalisations and improving quality of life and survival.<sup>2</sup> These goals can be achieved through comprehensive and multidisciplinary care, such as that delivered in HF management programmes. However, these programmes are not always available due to lack of resources (funding and staff), national guidance and administrative support.<sup>3</sup>



## Heart failure facts

HF management programmes reduce hospitalisations, hospital readmissions, healthcare costs and mortality, and improve quality of life for people with HF.<sup>3</sup>

## What is an HF management programme?

HF management programmes are comprehensive care programmes that support the person with HF throughout their entire care journey, from diagnosis to end-of-life care and across primary and specialised care settings.<sup>2</sup> The programmes are multidisciplinary and led by HF specialists, such as cardiologists or HF nurses.

HF management programmes should include:

- prescription, review and optimisation of medication and cardiac devices
- access to transplantation
- cardiac rehabilitation
- post-discharge care
- regular monitoring of risk factors, signs, symptoms, quality of life, functional status and comorbidities
- education on self-care (patient empowerment)
- psychosocial support
- advance care planning
- a comprehensive care plan outlining essential information.<sup>1,2</sup>

HF outpatient clinics are the preferred setting to deliver HF management programmes.<sup>4,5</sup> HF specialists should lead these clinics with input from other health and social care professionals.





## What do the guidelines say?

The guidelines outline key components of effective HF care and how best to deliver them.

### Prescription and adjustment of medication



#### Heart failure facts

Medication helps manage HF symptoms and prevent disease progression.<sup>2</sup>

The optimal medicine(s) and dose(s) to manage HF vary; it is important to consider the HF classification, stage and the entire status of the person – for example, whether they have any comorbidities – when deciding on a treatment.<sup>2</sup> Finding the optimal dose typically involves the HF care team initially prescribing a low dose and adjusting it over time while monitoring benefits and side effects, a process called titration.

It is important to review the medication plan regularly and adjust it when needed.<sup>2,3</sup>

#### Best practice from key European guidelines

HF is commonly classified as HF with reduced ejection fraction (HFrEF) and HF with preserved ejection fraction (HFpEF).<sup>2</sup> In HFrEF, the heart is unable to contract effectively and pumps only a fraction of the blood it holds to the rest of the body. In HFpEF, the heart contracts effectively but holds only a small volume of blood, which does not meet the body's needs. Recommendations in clinical guidelines vary with the classification of HF.

##### Recommendations for HFrEF

Medicines for HFrEF usually include beta blockers, angiotensin-converting enzyme (ACE) inhibitors, mineralocorticoid receptor agonists (MRAs), angiotensin receptor blockers (ARBs) and diuretics.<sup>2</sup>

##### Recommendations for HFpEF

Evidence of treatment effectiveness in HFpEF is limited but evolving.<sup>2</sup> Diuretics are often recommended. Treatment for HFpEF usually focuses on alleviating symptoms and improving overall wellbeing.

## Recommendation of cardiac devices



### Heart failure facts

Cardiac devices can treat a dangerous and irregular heart rate/rhythm or advanced HF that is resistant to medication.<sup>2</sup>

Like medicines, cardiac devices should be considered on a case-by-case basis. It is important to take into account the preferences, clinical management goals and overall status of the person with HF.<sup>2</sup> The care team should inform people with HF and their families/carers about the purpose, constraints and potential risks of cardiac devices, as well as situations where deactivation may be considered, such as end of life.

### Best practice from key European guidelines

People with HFrEF may be eligible for an implantable cardioverter defibrillator (ICD) or cardiac resynchronisation therapy (CRT), depending on their clinical history, response to medication and expected benefit from the device.<sup>2</sup> ICD and CRT both use electrical pulses to regulate abnormal heart rates and rhythms.

People with advanced HF may be eligible for a ventricular assist device (VAD) – an implantable device that functions as a mechanical pump to send blood to the rest of the body. Left ventricular assist devices (LVADs) can be a temporary solution for people awaiting heart transplantation or, more commonly, a long-term alternative to transplantation.<sup>6</sup> Biventricular assist devices (BiVADs) are suitable as a temporary solution while awaiting transplantation but not as a long-term option.<sup>2</sup>

*Information on the deactivation of cardiac devices is included in [Understanding heart failure guidelines: Advance care planning](#).*

## Transplantation



### Heart failure facts

Heart transplantation may improve survival, exercise capacity, quality of life and return to work in end-stage HF.<sup>2</sup>





While heart transplantation may be a suitable treatment option for some people with HF, access to the procedure is limited owing to a shortage of donor hearts.<sup>2</sup> While waiting for a donor heart, people with HF may receive a VAD (see previous section: Recommendation of cardiac devices).

Risks associated with heart transplantation may include post-operative infection and transplant rejection.<sup>2</sup>

## Best practice from key European guidelines

Heart transplantation may be an option for people with end-stage HF, severe symptoms, poor prognosis and no alternative treatment.<sup>2</sup> The HF care team should consider whether the person with HF has enough social support to navigate the demanding post-operative care – people should be well-informed, motivated and emotionally stable to manage follow-up treatment.

Heart transplantation is not recommended for people with end-stage HF and additional health conditions with poor prognosis.<sup>2</sup> However, other contraindications may be treatable and should be addressed before reconsideration of transplantation. This may include, for example, obesity, renal failure and pulmonary hypertension.<sup>2</sup>

## Cardiac rehabilitation



### Heart failure facts

Cardiac rehabilitation reduces morbidity and mortality in people with cardiovascular disease, including HF.<sup>7</sup>

Cardiac rehabilitation programmes include tailored exercise, counselling and educational sessions to strengthen the heart, reduce risk factors and support long-term HF management.<sup>7</sup> They should be multidisciplinary – delivered by cardiologists, nurses and exercise experts, with additional input from dietitians, psychologists, occupational therapists, social workers, pharmacists and experts in other health conditions.

Cardiac rehabilitation should be initiated in hospital and continued within three weeks of hospital discharge.<sup>7</sup> It should involve both the person with HF and their family/carers.

## Best practice from key European guidelines

Cardiac rehabilitation programmes should start with education about cardiac rehabilitation and a risk assessment to design a tailored programme.<sup>7</sup>

Risk assessments should include a full diagnosis of HF and exercise tests.

Cardiac rehabilitation plans should incorporate exercise, diet and nutritional counselling, monitoring of cholesterol and blood pressure, psychosocial support, weight management, smoking cessation and advice on returning to prior activities, for example professional activity.<sup>7</sup>

The cardiac rehabilitation plan should be shared with the person with HF, their family/carers and the entire HF care team.<sup>7</sup> Communication with the primary care team is particularly important to make sure people receive adequate support after hospital discharge.

*Information on diagnosis of HF, including all recommended tests, is included in [Understanding heart failure guidelines: Diagnosis](#).*

## Post-discharge care



### Heart failure facts

Effective discharge planning reduces the risk of hospital readmission in people with HF.<sup>8</sup>

People with HF should only be discharged from hospital when their HF is stable and post-discharge care has been arranged.<sup>2</sup> Discharge planning should consider the wishes of the person with HF and their family/carers, and the support available in the community.<sup>9</sup>





## **Best practice from key European guidelines**

Discharge planning should commence as soon as a person's condition is stable.<sup>9</sup> Following hospitalisation for HF, the person should be enrolled in an HF management programme, and a follow-up plan should be communicated to their primary care team.<sup>2</sup> Where possible:

- people should see a primary care physician within one week of discharge, and their specialist cardiology team within two weeks of discharge<sup>2</sup>
- people with newly diagnosed HF should have an extended first consultation with an HF specialist, with a follow-up consultation two weeks later.<sup>9</sup>

## **Regular monitoring of HF status**



### **Heart failure facts**

Regular follow-up and monitoring helps optimise HF treatment and detect disease progression and complications.<sup>2</sup>

The HF care team should review a person's clinical record, medication plan and HF status regularly.<sup>2</sup> Contact between the person with HF and their care team may include home visits, community/hospital-based consultations and/or remote monitoring through online or telephone-based contact, depending on local resources.

## **Best practice from key European guidelines**

The primary care team should see people with stable HF at least once every six months to update their clinical record and monitor HF status.<sup>9</sup> Some guidelines also propose an annual review with an HF specialist to ensure care remains appropriate and to account for changes in treatment guidelines.<sup>5</sup>

Older people with HF, people with unstable HF and people with recent changes to their treatment plan should have more frequent contact with their HF care team.<sup>2</sup>

## Patient empowerment and self-care



### Heart failure facts

People with HF who are empowered and adequately supported in self-care are at a lower risk of hospital readmission and depression.<sup>10</sup>

People with HF have an essential role in managing and improving their own health outcomes. They can engage in specific behaviours and activities to manage their HF – this process is often called self-care,<sup>11</sup> but other terms may be used, such as self-management and patient activation.

The HF care team should support and encourage people with HF to self-care.<sup>2</sup> These discussions should take place regularly because self-care can be difficult to maintain over time.<sup>5</sup>

### Best practice from key European guidelines

Examples of self-care for HF include daily weighing (to monitor fluid retention), eating healthy foods, limiting salt intake, exercising regularly, quitting smoking and limiting alcohol consumption.<sup>2,11</sup>

More information about self-care for HF is included in [Understanding heart failure guidelines: Patient empowerment and self-care](#).

## Psychosocial support



### Heart failure facts

Depression, anxiety and lack of social support are linked to poor outcomes in people with HF.<sup>2</sup>

Psychosocial support helps people with HF maintain quality of life.<sup>2</sup> The HF care team should tailor support to the needs of the person with HF and their family/carers.





## Best practice from key European guidelines

The HF care team should regularly look for signs of depression and anxiety in people with HF and address them as soon as they are identified.<sup>2</sup> Psychologists and social workers can offer more specialised assistance when needed.

*More information about the different roles in an HF care team is included in [Understanding heart failure guidelines: The multidisciplinary team](#).*

## Advance care planning



### Heart failure facts

Advance care planning and palliative care improve symptom burden and quality of life in people with HF.<sup>12</sup>

Palliative care should be available to all people with HF in need of comprehensive treatment, not only those in the later stages of HF.<sup>2</sup> It should take a multidisciplinary approach, involving all health and social care professionals in HF care.

## Best practice from key European guidelines

Advance care planning may include discussions about resuscitation preferences, stopping treatment, deactivating cardiac devices and preferred places for care and death.<sup>2</sup> Palliative care should include physical, psychological and spiritual care for people with HF and their families/carers, with a focus on maintaining quality of life and reducing symptom burden.

*More information about palliative care for HF is included in [Understanding heart failure guidelines: Advance care planning](#).*

## Care plan

All care elements included in this guide should come together in a comprehensive care plan designed by HF specialists for each individual patient.<sup>3</sup> This plan should outline care management, including follow-up care, cardiac rehabilitation and social care.<sup>9</sup> It should include instructions for accessing specialist care when needed (for example, if signs or symptoms exacerbate) and contact details for an HF care coordinator, such as an HF nurse.

Care plans should be discussed with the person with HF, their family/carers and all health and social care professionals involved in the care of the person with HF.<sup>9</sup>

## References

1. The Heart Failure Policy Network. 2018. *The handbook of multidisciplinary and integrated heart failure care*. London: The Heart Failure Policy Network
2. Ponikowski P, Voors AA, Anker SD, *et al.* 2016. 2016 ESC guidelines for the diagnosis and treatment of acute and chronic heart failure. *Eur J Heart Fail* 18(8): 891-975
3. The Heart Failure Policy Network. 2018. *Pressure point 3: clinical management*. London: The Heart Failure Policy Network
4. Moertl D, Altenberger J, Bauer N, *et al.* 2017. Disease management programs in chronic heart failure: position statement of the Heart Failure Working Group and the Working Group of the Cardiological Assistance and Care Personnel of the Austrian Society of Cardiology. *Wien Klin Wochenschr* 129(23-24): 869-78
5. McDonagh TA, Blue L, Clark AL, *et al.* 2011. European Society of Cardiology Heart Failure Association standards for delivering heart failure care. *Eur J Heart Fail* 13(3): 235-41
6. Jaarsma T, Beattie JM, Ryder M, *et al.* 2009. Palliative care in heart failure: a position statement from the palliative care workshop of the Heart Failure Association of the European Society of Cardiology. *Eur J Heart Fail* 11(5): 433-43
7. Piepoli MF, Corrà U, Adamopoulos S, *et al.* 2014. Secondary prevention in the clinical management of patients with cardiovascular diseases. Core components, standards and outcome measures for referral and delivery: a policy statement from the Cardiac Rehabilitation Section of the European Association for Cardiovascular Prevention & Rehabilitation. Endorsed by the Committee for Practice Guidelines of the European Society of Cardiology. *Eur J Prev Cardiol* 21(6): 664-81
8. Salim Al-Damluji M, Dzara K, Hodshon B, *et al.* 2015. Association of discharge summary quality with readmission risk for patients hospitalized with heart failure exacerbation. *Circ Cardiovasc Qual Outcomes* 8(1): 109-11
9. National Institute for Health and Care Excellence. 2018. *Chronic heart failure in adults: diagnosis and management*. London: NICE
10. The Heart Failure Policy Network. 2018. *Pressure point 4: Patient empowerment and self-care*. London: The Heart Failure Policy Network
11. Lainscak M, Blue L, Clark AL, *et al.* 2011. Self-care management of heart failure: practical recommendations from the Patient Care Committee of the Heart Failure Association of the European Society of Cardiology. *Eur J Heart Fail* 13(2): 115-26
12. Brannstrom M, Boman K. 2014. Effects of person-centred and integrated chronic heart failure and palliative home care. PREFER: a randomized controlled study. *Eur J Heart Fail* 16(10): 1142-51





## Acknowledgements

Considerable thanks and acknowledgement are due to all members of the Project Advisory Group for their continued input throughout this project:

- Dr Josep Comín-Colet (Bellvitge University Hospital, Spain)
- Professor Salvatore Di Somma (University La Sapienza Rome, Sant'Andrea Hospital and Associazione Italiana Scompensati Cardiaci, Italy)
- Professor José Ramón González-Juanatey (University Hospital Santiago de Compostela, Spain)
- Ms Penilla Gunther (FOKUS Patient and former Member of Parliament, Sweden)
- Mr Neil Johnson (Croí, West of Ireland Cardiac Foundation, Ireland)
- Mr Steven Macari (Association Vie Et Cœur (AVEC), France)
- Ms Sandra Mulrennan (St Bartholomew's Hospital Heart Failure Service, Barts Health NHS London, United Kingdom)
- Ms Patricia Vlasman (Let the Beat Go On, the Netherlands).

## About the Heart Failure Policy Network

The Heart Failure Policy Network is an independent, multidisciplinary group of healthcare professionals, patient advocacy groups, policymakers and other stakeholders from across Europe whose goal is to raise awareness of the unmet needs surrounding heart failure and its care. All Network content is non-promotional and non-commercial. The Secretariat is provided by The Health Policy Partnership Ltd, an independent health policy consultancy based in London.

# Clinical management



**The Heart  
Failure Policy  
Network**



The Heart Failure Policy Network is an independent, multidisciplinary platform made possible with financial support from Vifor Pharma, Novartis Pharma and the International Heart Hub. The content produced by the Network is not biased to any specific treatment or therapy, and is endorsed and owned by the Network's members, who have full editorial control. All members provide their time for free.