NATIONAL INSTITUTE FOR HEALTH AND
CARE EXCELLENCE

Quality standards

Briefing paper: Chronic heart failure in adults (update)

**Quality Standards Advisory Committee meeting**: 25 May 2022

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1. Introduction

This briefing paper presents a structured overview of potential quality improvement areas for chronic heart failure (CHF) in adults. It provides the committee with a basis for discussing and prioritising quality improvement areas for development into draft quality statements and measures for public consultation.

This briefing paper includes a brief description of the topic, a summary of each of the suggested quality improvement areas and supporting information.

Recommendations selected from the key development source are included to help the committee in considering potential statements and measures.

* 1. Development source

The key development source referenced in this briefing paper is:

[Chronic heart failure in adults: diagnosis and management](https://www.nice.org.uk/guidance/ng106) (2018) NICE guideline NG106.

1. Overview
	1. Focus of quality standard

This quality standard will cover assessing, diagnosing and managing chronic heart failure in adults (aged 18 and over). It will update and replace [QS9 Chronic heart failure in adults](https://www.nice.org.uk/guidance/qs9).

* 1. Definition

Heart failure is a range of symptoms and signs that suggest a defect in heart function, meaning it does not empty or fill as it should. It is caused by structural or functional abnormalities of the heart. Some patients have heart failure with a reduced ejection fraction (HFrEF) meaning the left ventricle of the heart does not contract as it should. Others have heart failure with a preserved ejection fraction (HFpEF) meaning that the left ventricle does not fill properly due to thickening of the heart muscle.

* 1. Incidence and prevalence

Around 900,000 people in the UK are living with heart failure ([NICOR 2021](https://www.nicor.org.uk/wp-content/uploads/2021/10/NHFA-Appendix-1-Introduction-to-Heart-Failure-and-its-Treatment-.pdf)) . Both the incidence and prevalence of heart failure increase steeply with age, with the average age of a heart failure patient being 75, though this drops to 69 in those from a black and minority ethnic background, and the low 60s for those who are socio-economically deprived ([BHF 2020](https://www.bhf.org.uk/what-we-do/policy-and-public-affairs/transforming-healthcare/heart-failure-report)) .

The prevalence of heart failure is rising as a result of an ageing population and survival from acute cardiac events improving.

In 2018/19 more than 100,000 hospital admissions had heart failure as the primary diagnosis, with admissions rising by nearly a third between 2013/14 and 2018/19 ([BHF 2020](https://www.bhf.org.uk/what-we-do/policy-and-public-affairs/transforming-healthcare/heart-failure-report)). These admissions have patients staying for double the average hospital stay ([NICOR 2019](https://www.nicor.org.uk/wp-content/uploads/2019/09/Heart-Failure-2019-Report-final.pdf)). Heart failure accounts for a total of 1 million inpatient bed days – 2% of all NHS inpatient bed-days – and 5% of all emergency medical admissions to hospital ([NICE NG106 Full Guideline 2018](https://www.nice.org.uk/guidance/ng106/evidence)).

* 1. Current service delivery and management

Heart failure has a poor prognosis: In the UK around half of people diagnosed with heart failure will die within 5 years of their diagnosis ([Taylor, C. J. et al, 2019](https://www.bmj.com/content/364/bmj.l223?msclkid=0cc675a2bc0511ecb1795d758f9d67fa)).

There is significant regional variation in treatment, with the percentage of patients seen by a specialist upon admission varying from 40 to 100 percent. 37% of patients were recorded as having related follow up from a member of the multidisciplinary team within 2 weeks of discharge from hospital, with 15% of patients being referred to cardiac rehabilitation services. Patients with CHF often experience a poor quality of life, with around 80% of those with heart failure in the UK are classed as having a significant or extremely life limiting form of the condition ([NICOR 2019](https://www.nicor.org.uk/wp-content/uploads/2019/09/Heart-Failure-2019-Report-final.pdf)).

While 40% of heart failure patients show symptoms that should trigger an assessment in primary care, up to 80% are still diagnosed in hospital ([Bottle A, Kim D, Aylin P, et al, 2018](https://pubmed.ncbi.nlm.nih.gov/28982720/)). On average, a GP will look after 30 patients with heart failure and suspect a new diagnosis of heart failure in, perhaps, 10 patients annually ([NICE NG106 Full Guideline 2018](https://www.nice.org.uk/guidance/ng106/evidence)). Diagnosis in primary care rose by 33% between 2013/14 and 2018/19 ([BHF 2020](https://www.bhf.org.uk/what-we-do/policy-and-public-affairs/transforming-healthcare/heart-failure-report)).

See [appendix 1](#_Appendix_1:_Additional) for the associated care pathway from NICE’s guideline on chronic heart failure.

1. Summary of suggestions
	1. Responses

In total 12 registered stakeholders responded to the 2-week engagement exercise.

* 10 stakeholders suggested areas, including two endorsements of SCM responses
* 2 stakeholders had no comments

7 specialist committee members suggested areas

The responses have been summarised in table 1 for further consideration by the committee.

Full details of all the suggestions provided are given in appendix 2 for information.

* 1. Priorities for committee discussion

Table 1 Summary of information available for suggested areas for improvement

| Suggested area for improvement | Stakeholder  | In scope | Guideline recs | Current practice evidence  | Existing QS statement | Priority to discuss? |
| --- | --- | --- | --- | --- | --- | --- |
| **Diagnosis** | SCM1, BACPR, BI, BSH, SCM2, SCM3, VPUK, NHSE, NHSEI, SCM4, NPUK, SCM5, SCM6, SCM7 | Yes | Yes | No | Yes | **Yes** |
| **Cardiac Rehabilitation** | SCM1, BACPR, BI, BSH, SCM2, SCM3, VPUK, NHSE, NHSEI, SCM4, NPUK, SCM5, SCM6, SCM7 | Yes | Yes | Yes | Yes | **Yes** |
| **Service Delivery**Multi-disciplinary teams (MDTs) | BI, SCM3, SCM6 | Yes | Yes | No | No | **Yes** |
| **Service Delivery**Care reviews and care plans | BSH, SCM2, NHSE, SCM4, SCM5 | Yes | Yes | No | No | **Yes** |
| **Service Delivery**Medication review at 2 weeks | SCM2, NPUK,  | Yes | Yes | No | Yes | **Yes** |
| **Treating Heart failure with reduced ejection fraction** | SCM1, BACPR, BPL, BI, BSH, SCM2, VPUK, NHSE, NPUK, SCM5, SCM6,  | Yes | Yes | Yes | Yes | **Yes** |
| **Treating Heart failure with preserved ejection fraction** | BI, SCM3 | Yes | Yes | No | No | **Yes** |

Abbreviations:

* BACPR, British Association for Cardiovascular Prevention & Rehabilitation
* BI, Boehringer Ingelheim,
* BPL, Bayer Plc Ltd
* BSH, British Society for Heart Failure
* VPUK, Vifor Pharma UK
* NHSE, NHS England
* NHSE&I, NHS England and NHS Improvement
* NPUK, Novartis Pharmaceuticals UK Ltd
* SCM, Specialist Committee Member

BANCC, British Association of Nursing in Cardiovascular Care, endorsed comments from SCM2

PMF, Pumping Marvellous Foundation, endorsed comments from SCM4

1. Suggested improvement areas

Section 4 presents a summary of the suggested improvement areas, with provisional recommendations that may support statement development and information on current UK practice.

* 1. Diagnosis

#### Existing Quality Statements

Statement 1: Adults with suspected chronic heart failure who have been referred for diagnosis have an echocardiogram and specialist assessment.

Statement 2: Adults with suspected chronic heart failure and very high levels of serum natriuretic peptides, who have been referred for diagnosis, have an echocardiogram and specialist assessment within 2 weeks.

#### Merge existing statements 1 and 2

Stakeholders suggested that this is still a key area for quality improvement, with most of diagnosis occurring in hospital, yet a significant portion of patients having had symptoms prior to admission. Stakeholders agreed that it was sensible to merge the two statements. They fed back the importance of featuring NICE recommended timelines of 6 weeks and 2 weeks for patients with an NT-proBNP level above/below 2,000 ng/litre (236 pmol/litre) respectively.

They also noted the importance of routine testing of NT-proBNP and improving its accessibility. Stakeholders questioned if HFpEF was covered by echocardiograms in Statement 1 and fed back that a new statement in this area could help with issues of poor recording and management of the condition.

#### Selected recommendations

NICE’s guideline on [Chronic heart failure in adults: diagnosis and management (NG106)](https://www.nice.org.uk/guidance/ng106)

1.2.2 Measure N-terminal pro-B-type natriuretic peptide (NT‑proBNP) in people with suspected heart failure.

1.2.3 Because very high levels of NT‑proBNP carry a poor prognosis, refer people with suspected heart failure and an NT‑proBNP level above 2,000 ng/litre (236 pmol/litre) urgently, to have specialist assessment and transthoracic echocardiography within 2 weeks.

1.2.4 Refer people with suspected heart failure and an NT‑proBNP level between 400 and 2,000 ng/litre (47 to 236 pmol/litre) to have specialist assessment and transthoracic echocardiography within 6 weeks.

1.2.6 Review alternative causes for symptoms of heart failure in people with NT-proBNP levels below 400 ng/litre. If there is still concern that the symptoms might be related to heart failure, discuss with a physician with subspeciality training in heart failure.

#### Current UK practice

No published data on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder’s knowledge and experience.

#### Resource impact

During development of NG106, this was not expected to have a significant resource impact.

#### Issues for consideration

**For discussion:**

* What is the area for quality improvement?

**For decision:**

* Should this area be prioritised for inclusion in the quality standard?
* Should existing statements 1 and 2 be merged?
	1. Cardiac Rehabilitation

#### Existing Quality Statements

Statement 6: Adults with stable chronic heart failure are offered an exercise‑based programme of cardiac rehabilitation.

Statement 7: Adults with chronic heart failure referred to a programme of cardiac rehabilitation are offered sessions during and outside working hours, and the choice of undertaking the programme at home, in the community or in a hospital setting.

#### Merge existing statements 6 and 7

Stakeholders suggested that this is still a key area for quality improvement. They fed back that all patients with chronic heart failure should be offered cardiac rehabilitation, and that quality of care and associated outcomes would be improved by increasing its provision. Stakeholders highlighted the need for different delivery methods and times to be offered, as well as the importance of cardiac rehabilitation in all forms. Stakeholders agreed that it was sensible to merge the two existing statements.

Stakeholders felt that while that flexibility of rehabilitation provision had improved and had become more widespread, there was still significant variation. They fed back that advances in, and greater usage of virtual technology during the COVID-19 pandemic had sped up progress, and that though there was still a way to go, this was something that should be aimed for

#### Selected recommendations

NICE’s guideline on [Chronic heart failure in adults: diagnosis and management (NG106)](https://www.nice.org.uk/guidance/ng106)

1.9.1 Offer people with heart failure a personalised, exercise-based cardiac rehabilitation programme, unless their condition is unstable. The programme:

* should be preceded by an assessment to ensure that it is suitable for the person
* should be provided in a format and setting (at home, in the community or in the hospital) that is easily accessible for the person
* should include a psychological and educational component
* may be incorporated within an existing cardiac rehabilitation programme
* should be accompanied by information about support available from healthcare professionals when the person is doing the programme.

#### Current UK practice

15.2% of patients were referred to cardiac rehabilitation when in hospital, with rates increasing when in cardiology wards (22%) ([NICOR 2021](https://www.nicor.org.uk/wp-content/uploads/2021/10/NHFA-Domain-Report_2021_FINAL.pdf)).

#### Resource impact

During the development of NG106, a local resource template was produced which included this recommendation. It was estimated that implementing this recommendation could result in net savings to the NHS of £7m per year in England due to a reduction in readmissions to hospital for adults with heart failure who were receiving cardiac rehabilitation.

#### Issues for consideration

**For discussion:**

* Are there specific elements of recommendation 1.9.1 that could be included in the statement wording?
* Which elements of statements 6 and 7 should remain?

**For decision:**

* Should statements 6 and 7 be merged?
	1. Service Delivery

Multi-disciplinary teams (MDTs)

Stakeholders fed back that provision of local multi-disciplinary teams was an area for improvement. They felt that they would be instrumental in ongoing care such as implementing care plans, and in integrating heart failure care. They also felt the teams should contain consultant cardiologists, specialist heart failure nurses, a healthcare professional with knowledge of specialist prescribing.

#### Selected recommendations

NICE’s guideline on [Chronic heart failure in adults: diagnosis and management (NG106)](https://www.nice.org.uk/guidance/ng106)

1.1.1 The core specialist heart failure multidisciplinary team (MDT) should work in collaboration with the primary care team, and should include:

* a lead physician with subspecialty training in heart failure (usually a consultant cardiologist) who is responsible for making the clinical diagnosis
* a specialist heart failure nurse
* a healthcare professional with expertise in specialist prescribing for heart failure.

1.1.2 The specialist heart failure MDT should:

* diagnose heart failure
* give information to people newly diagnosed with heart failure (see the [section on giving information to people with heart failure](https://www.nice.org.uk/guidance/ng106/chapter/recommendations#giving-information-to-people-with-heart-failure))
* manage newly diagnosed, recently decompensated or advanced heart failure (NYHA [New York Heart Association] class III to IV)
* optimise treatment
* start new medicines that need specialist supervision
* continue to manage heart failure after an interventional procedure such as implantation of a cardioverter defibrillator or cardiac resynchronisation device
* manage heart failure that is not responding to treatment.

1.1.3 The specialist heart failure MDT should directly involve, or refer people to, other services, including rehabilitation, services for older people and palliative care services, as needed.

1.1.4 The primary care team should carry out the following for people with heart failure at all times, including periods when the person is also receiving specialist heart failure care from the MDT:

* ensure effective communication links between different care settings and clinical services involved in the person's care
* lead a full review of the person's heart failure care, which may form part of a long-term conditions review
* recall the person at least every 6 months and update the clinical record
* ensure that changes to the clinical record are understood and agreed by the person with heart failure and shared with the specialist heart failure MDT
* arrange access to specialist heart failure services if needed.

1.3.5 The specialist heart failure MDT should offer people newly diagnosed with heart failure an extended first consultation, followed by a second consultation to take place within 2 weeks if possible. At each consultation:

* discuss the person's diagnosis and prognosis
* explain heart failure terminology
* discuss treatments
* address the risk of sudden death, including any misconceptions about that risk
* encourage the person and their family or carers to ask any questions they have.

#### Current UK practice

No published data on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder’s knowledge and experience.

#### Resource impact

During the development of NG106, this area was not expected to have a significant impact on the use of NHS resources.

#### Issues for consideration

**For discussion:**

* What is the priority for improvement?
* What is the key action that will lead to improvement?
* Are multi-disciplinary teams widespread in current practice?
* Can we develop a specific, measurable statement?

**For decision:**

* Should this area be prioritised for inclusion in the quality standard?

Care reviews and care plans

#### Existing Quality Statements

Statement 5: Adults with stable chronic heart failure have a review of their condition at least every 6 months.

Stakeholders felt that all patients with heart failure should have a care plan and those with stable heart failure should receive care reviews every 6 months. They highlighted that the care plans and reviews should enable access to advice from specialists, help to optimise treatment and recovery, deliver education and enable self care.

#### Selected recommendations

NICE’s guideline on [Chronic heart failure in adults: diagnosis and management (NG106)](https://www.nice.org.uk/guidance/ng106)

1.1.4 The primary care team should carry out the following for people with heart failure at all times, including periods when the person is also receiving specialist heart failure care from the MDT:

* ensure effective communication links between different care settings and clinical services involved in the person's care
* lead a full review of the person's heart failure care, which may form part of a long-term conditions review
* recall the person at least every 6 months and update the clinical record
* ensure that changes to the clinical record are understood and agreed by the person with heart failure and shared with the specialist heart failure MDT
* arrange access to specialist heart failure services if needed

1.1.7 The specialist heart failure MDT should write a summary for each person with heart failure that includes:

* diagnosis and aetiology
* medicines prescribed, monitoring of medicines, when medicines should be reviewed and any support the person needs to take the medicines
* functional abilities and any social care needs
* social circumstances, including carers' needs

1.1.8 The summary should form the basis of a care plan for each person, which should include:

* plans for managing the person's heart failure, including follow-up care, rehabilitation and access to social care
* symptoms to look out for in case of deterioration
* a process for any subsequent access to the specialist heart failure MDT if needed
* contact details for
	+ a named healthcare coordinator (usually a specialist heart failure nurse)
	+ alternative local heart failure specialist care providers, for urgent care or review.
* additional sources of information for people with heart failure.

1.1.9 Give a copy of the care plan to the person with heart failure, their family or carer if appropriate, and all health and social care professionals involved in their care.

1.7.1 All people with chronic heart failure need monitoring. This monitoring should include:

* a clinical assessment of functional capacity, fluid status, cardiac rhythm (minimum of examining the pulse), cognitive status and nutritional status
* a review of medication, including need for changes and possible side effects
* an assessment of renal function.

1.7.3 The frequency of monitoring should depend on the clinical status and stability of the person. The monitoring interval should be short (days to 2 weeks) if the clinical condition or medication has changed, but is needed at least 6-monthly for stable people with proven heart failure.

#### Current UK practice

No published data on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder’s knowledge and experience.

#### Resource impact

During the development of NG106, this area was not expected to have a significant impact on the use of NHS resources.

#### Issues for consideration

**For discussion:**

* What is the priority for improvement?
* Are care plans and care reviews widespread in current practice?
* What is the key action that will lead to improvement?
* Can we develop a specific, measurable statement?

**For decision:**

* Should this area be prioritised for inclusion in the quality standard?

Medication review at 2 weeks

Stakeholders felt all that those patients with heart failure should have a review within 2 weeks of a medication change.

#### Existing Quality Statement

Statement 4: Adults with chronic heart failure have a review within 2 weeks of any change in the dose or type of their heart failure medication.

#### Selected recommendations

NICE’s guideline on [Chronic heart failure in adults: diagnosis and management (NG106)](https://www.nice.org.uk/guidance/ng106)

1.7.1 All people with chronic heart failure need monitoring. This monitoring should include:

* a clinical assessment of functional capacity, fluid status, cardiac rhythm (minimum of examining the pulse), cognitive status and nutritional status
* a review of medication, including need for changes and possible side effects
* an assessment of renal function.

Note: This is a minimum. People with comorbidities or co-prescribed medications will need further monitoring. Monitoring serum potassium is particularly important if a person is taking digoxin or an MRA.

1.7.2 More detailed monitoring will be needed if the person has significant comorbidity or if their condition has deteriorated since the previous review.

1.7.3 The frequency of monitoring should depend on the clinical status and stability of the person. The monitoring interval should be short (days to 2 weeks) if the clinical condition or medication has changed, but is needed at least 6-monthly for stable people with proven heart failure.

1.7.4 People with heart failure who wish to be involved in monitoring of their condition should be provided with sufficient education and support from their healthcare professional to do this, with clear guidelines as to what to do in the event of deterioration.

#### Current UK practice

No published data on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder’s knowledge and experience

#### Resource impact

During the development of NG106, this area was not expected to have a significant impact on the use of NHS resources.

#### Issues for consideration

**For discussion:**

* Does the existing statement adequately cover the area for improvement?
* What can be added that is not currently covered in statement 4?
* Can we develop a specific, measurable statement?

**For decision:**

* Should this area remain in the quality standard?
	1. Treating heart failure with reduced ejection fraction

#### Existing Quality Statement

Statement 3: Adults with chronic heart failure who have reduced ejection fraction are started on low‑dose angiotensin‑converting enzyme (ACE) inhibitor and beta‑blocker medications that are gradually increased until the target or optimal tolerated doses are reached.

#### Treating heart failure with reduced ejection fraction

Stakeholders felt that these patients should receive optimised ACE, beta-blockers, and mineralocorticoid receptor antagonists (MRAs), with some also advocating for the inclusion of sodium-glucose co-transporter 2 inhibitors (SGLT2i).

Stakeholders also suggested that Patients with HFrEF who meet the criteria are considered for ivabradine or sacubitril valsartan in place of ACE inhibitors, as well as those considered for implantable cardioverter-defibrillator (ICD) having regular reviews.

#### Selected recommendations

NICE’s guideline on [Chronic heart failure in adults: diagnosis and management (NG106)](https://www.nice.org.uk/guidance/ng106)

1.4.1 Offer an angiotensin-converting enzyme (ACE) inhibitor and a beta‑blocker licensed for heart failure to people who have [heart failure with reduced ejection fraction](https://www.nice.org.uk/guidance/ng106/chapter/recommendations#heart-failure-with-reduced-ejection-fraction). Use clinical judgement when deciding which drug to start first.

1.4.3 Start ACE inhibitor therapy at a low dose and titrate upwards at short intervals (for example, every 2 weeks) until the target or maximum tolerated dose is reached.

1.4.7 Consider an ARB licensed for heart failure as an alternative to an ACE inhibitor for people who have heart failure with reduced ejection fraction and intolerable side effects with ACE inhibitors.

1.4.13 Introduce beta-blockers in a 'start low, go slow' manner. Assess heart rate and clinical status after each titration. Measure blood pressure before and after each dose increment of a beta‑blocker.

1.4.15 Offer an [mineralocorticoid receptor antagonists (MRA)](https://www.nice.org.uk/guidance/ng106/chapter/recommendations#mineralocorticoid-receptor-antagonist), in addition to an ACE inhibitor (or ARB) and beta-blocker, to people who have heart failure with reduced ejection fraction if they continue to have symptoms of heart failure.

1.4.22 Sacubitril valsartan is recommended as an option for treating symptomatic chronic heart failure with reduced ejection fraction, only in people:

* with New York Heart Association (NYHA) class II to IV symptoms **and**
* with a left ventricular ejection fraction of 35% or less **and**
* who are already taking a stable dose of angiotensin‑converting enzyme (ACE) inhibitors or ARBs.

1.8.3 When discussing implantation of a cardioverter defibrillator:

* explain the risks, benefits and consequences of cardioverter defibrillator implantation, following the principles on shared decision making in the [NICE guideline on patient experience in adult NHS services](https://www.nice.org.uk/guidance/cg138/chapter/1-Guidance#enabling-patients-to-actively-participate-in-their-care)
* ensure the person knows that the defibrillator function can be deactivated without affecting any cardiac resynchronisation or pacing, and reactivated later
* explain the circumstances in which deactivation might be offered
* discuss and dispel common misconceptions about the function of the device and the consequences of deactivation
* provide the person and, if they wish, their family or carers with written information covering the information discussed

1.8.4 Review the benefits and potential harms of a cardioverter defibrillator remaining active in a person with heart failure:

* at each 6‑monthly review of their heart failure care
* whenever their care goals change
* as part of advance care planning if it is thought they are nearing the end of life.

#### NICE technology appraisals

[TA773](https://www.nice.org.uk/guidance/ta773): Empagliflozin for treating chronic heart failure with reduced ejection fraction

[TA679](https://www.nice.org.uk/guidance/ta679): Dapagliflozin for treating chronic heart failure with reduced ejection fraction

#### Current UK practice

84% of patients are discharged from hospital on an ACE inhibitor or ARB, 90% on beta-blockers, and 56% on MRAs, with only 49% receiving all 3 ([NICOR 2021](https://www.nicor.org.uk/wp-content/uploads/2021/10/NHFA-Domain-Report_2021_FINAL.pdf)).

#### Resource impact

During the development of NG106, this area was not expected to have a significant impact on the use of NHS resources.

#### Issues for consideration

**For discussion:**

* Does the existing statement adequately cover the area for improvement?
* If not, what is the key action that will lead to improvement?
* Can we develop a specific, measurable statement?

**For decision:**

* Should this area be prioritised for inclusion in the quality standard?
	1. Treating heart failure with preserved ejection fraction

Stakeholders felt that blood pressure and albuminuria in this patient group should be optimised, and that they should be offered low to medium doses of diuretics.

#### Selected recommendations

NICE’s guideline on [Chronic heart failure in adults: diagnosis and management (NG106)](https://www.nice.org.uk/guidance/ng106)

1.6.2 People who have [heart failure with preserved ejection fraction](https://www.nice.org.uk/guidance/ng106/chapter/recommendations#heart-failure-with-preserved-ejection-fraction) should usually be offered a low to medium dose of loop diuretics (for example, less than 80 mg furosemide per day). People whose heart failure does not respond to this treatment will need further specialist advice.

#### Current UK practice

No published data on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder’s knowledge and experience.

#### Resource impact

During the development of NG106, this area was not expected to have a significant impact on the use of NHS resources.

#### Issues for consideration

**For discussion:**

* What is the priority for improvement?
* There are no available recommendations in the source guidance covering blood pressure and albuminuria in patients with HFpEF.
* What is the key action that will lead to improvement?
* Can we develop a specific, measurable statement?

**For decision:**

* Should this area be prioritised for inclusion in the quality standard?
	1. Additional areas

### Summary of suggestions

The improvement areas below were suggested as part of the stakeholder engagement exercise. However, they were felt to be either unsuitable for development as quality statements, outside the remit of this particular quality standard referral or need further discussion by the committee to establish potential for statement development.

There will be an opportunity for the committee to discuss these areas at the end of the Advisory Committee meeting.

Table 2 Summary of information available for additional areas

| Suggested area for improvement | Within remit of NICE QS | In scope | Guideline recs | Relevant existing QS  |
| --- | --- | --- | --- | --- |
| Assessment and management of iron deficiency | Yes | Yes | No | No |
| Local evidence of high-resolution equipment operated by experienced operators | No | No | Yes | No |
| Code cleansing in primary care | No | No | No | No |
| Palliative care | Yes | Yes | Yes | Yes |

**Assessment and management of iron deficiency**

Assessment and management of patient’s iron deficiency to optimise treatment was suggested as an area for improvement.

This suggestion has not been progressed. There are no guideline recommendations relevant to this area.

**Local evidence of high-resolution equipment operated by experienced operators**

Ensuring that there is local evidence of high-resolution equipment used by experienced operators for transthoratic echocardiography was suggested as an area for improvement.

This suggestion has not been progressed. Quality statements focus on actions that demonstrate high quality care or support, not the equipment that enables the actions to take place.

**Code cleansing in primary care**

Ensuring patients area on the correct disease register by code cleansing in primary care was suggested as an area for improvement.

This suggestion has not been progressed. Quality statements focus on actions that demonstrate high quality care or support, not the administration that enables the actions to take place. Additionally, there are no relevant recommendations for this area.

**Palliative care**

Palliative care provision for people living with heart failure was suggested as an area for improvement.

This suggestion has not been progressed. NICE quality standards on [end of life care for adults (QS13)](https://www.nice.org.uk/guidance/qs13) and [care of dying adults in the last days of life (QS144)](https://www.nice.org.uk/guidance/qs144) cover this area.

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# Appendix 1: Additional information



# Appendix 2: Suggestions from registered stakeholders

| ID | Stakeholder | Suggested key area for quality improvement | Why is this a key area for quality improvement? | Supporting information |
| --- | --- | --- | --- | --- |
|  | SCM1 | **Diagnosis**Merge statements 1 and 2 | Yes, provided you preserve the distinctive nature of the high risk patients defined by NTproBNP>2000 ng/L for whom the specialist consultation and the trans-thoracic echocardiograms are to be delivered within 2 weeks (while the others are to have both delivered within 6 weeks) |  |
|  | BACPR | **Diagnosis**Merge statements 1 and 2 | Yes, but ensure you keep the differentiation between NTproBNP levels. |  |
|  | Boehringer Ingelheim | **Diagnosis**Merge statements 1 and 2 | Yes, we agree with this suggestion, however we still feel it is important to collect existing quality measures under this standard for all patients including those needing urgent and non-urgent assessment |  |
|  | Boehringer Ingelheim | **Diagnosis**Merge statements 1 and 2 | Local availability of N-terminal pro-B-type natriuretic peptide (NT-proBNP) and evidence of utilisation in people with suspected heart failure.A key implementation issue from the guideline consultation was whether the NTproBNP test is widely available in primary care (recommendation 1.2.2). Commissioners, along with providers, may also need to review local services in order to meet this recommendation. The implementation will not have a substantial resource impact at a national level and has not included it in this report and accompanying template. | [https://www.nice.org.uk/guidance/ng106 section 1.2](https://www.nice.org.uk/guidance/ng106%20section%201.2).2<https://www.nice.org.uk/guidance/ng106/resources/resource-impact-report-pdf-6537494413> |
|  | British Society for Heart Failure (BSH) | **Diagnosis**Merge statements 1 and 2 | Agree, however this should reflect the NICE recommended pathway.i.e. “Adults with suspected chronic heart failure and highly elevated levels of serum natriuretic peptides, who have been referred for diagnosis, have an echocardiogram and specialist assessment within 2 weeks or mild to moderate within 6 weeks in accordance with NICE guideline recommendations.” |  |
|  | British Society for Heart Failure (BSH) | **Diagnosis**Merge statements 1 and 2 | Adherence to NICE recommended 2- and 6-week review in this life limiting, condition to prevent deterioration and admission to hospital. Almost 80% of HF is diagnosed on admission to hospital, despite 40% of patients having visited their GP with symptoms prior. HF prevalence is under recorded again suggesting there are people living with HF undiagnosed. NICOR data shows follow-up at 2 weeks post discharge poor at 40%. Overall, only 56% of patients see a HF nurse and 46% have cardiology follow up. This puts the onus of responsibility on community services even if the change made in secondary care. Secondary and Primary care providers cannot meet this requirement without HF specialist nurse services input, of which there is inequity provision across the UK.Diagnosis by a specialist should also confirm aetiology where possible to manage underlying cause/co-morbidities. This is of particular significance in HFpEF and emphasis should be made here with emerging therapies. HFpEF should be diagnosed by a HF cardiologist only. The National HF audit states that “86% of patients received an echocardiogram (down from 92% in 2014/15) with rates higher for those admitted to cardiology (93%) rather than general medical (82%) wards”, again suggesting that even as an inpatient. Greater emphasis on referral to cardiology as inpatient is required. Improvements in NT-proBNP testing would necessitate more timely specialist review. Equity of access is variable, and commissioners should proactively seek to address this. Services are struggling to meet current standards due to lack of echocardiography appointments and staffing shortages of physiologists and specialists to review patients. Commissioners and providers should seek to address this. | Please see below documents highlighting the continued issues with poor diagnosis rates and access to relevant tests/specialists: Bottle A, Kim D, Aylin P et al (2017). [Routes to diagnosis of heart failure: observational study using linked data in England](https://heart.bmj.com/content/104/7/600). Heart. 2018;104:600-605[Heart-Failure-A-Blueprint-For-Change-Oct-2020-3.pdf (bsh.org.uk)](https://www.bsh.org.uk/wp-content/uploads/2020/10/Heart-Failure-A-Blueprint-For-Change-Oct-2020-3.pdf)[NHFA-Domain-Report\_2021\_FINAL.pdf (nicor.org.uk)](https://www.nicor.org.uk/wp-content/uploads/2021/10/NHFA-Domain-Report_2021_FINAL.pdf)National Institute for Cardiovascular Outcomes Research (2019). Heart Failure Audit 2019 summary report (2017/18 data)[NHS Long Term Plan v1.2 August 2019](https://www.longtermplan.nhs.uk/wp-content/uploads/2019/08/nhs-long-term-plan-version-1.2.pdf)[NICE impact Diagnostic pathology](https://www.nice.org.uk/Media/Default/About/what-we-do/Into-practice/measuring-uptake/NICE-impact-diagnostic-pathology.pdf)Myhre PL, Vaduganathan M, Claggett B, Packer M, Desai AS, Rouleau JL, Zile MR, Swedberg K, Lefkowitz M, Shi V, McMurray JJV, Solomon SD. J Am Coll Cardiol. 2019 Mar 26;73(11):1264-1272. doi: 10.1016/j.jacc.2019.01.018. Epub 2019 Mar 4. PMID: 30846338; PMCID: PMC7955687.[NICE impact Diagnostic pathology](https://www.nice.org.uk/Media/Default/About/what-we-do/Into-practice/measuring-uptake/NICE-impact-diagnostic-pathology.pdf) |
|  | SCM2 | **Diagnosis**Merge statements 1 and 2 | Agree, however this should reflect the NICE recommended pathway.i.e. “*Adults with suspected chronic heart failure and highly elevated levels of serum natriuretic peptides, who have been referred for diagnosis, have an echocardiogram and specialist assessment within 2 weeks or mild to moderate within 6 weeks in accordance with NICE guideline recommendations.”* |  |
|  | SCM2 | **Diagnosis**Merge statements 1 and 2 | Almost 80% of HF is diagnosed on admission to hospital, despite 40% of patients having visited their GP with symptoms prior. This suggests that diagnosis and pathways are still not be followed appropriately in the community. HF prevalence is under recorded again suggesting there are people living with HF undiagnosed. **Therefore greater emphasis on 2 week urgent review as in cancer pathways should be made to prevent deterioration and admission to hospital.** Diagnosis by specialist should also confirm where possible aetiology to manage underlying cause/co morbidities affecting HF effectively. This is of particular significance in HFpEF and emphasis should be made here with emerging therapies. Other cardiac modalities could be mentioned her such as Cardiac MRI. **HFpEF should be diagnosed by a HF Cardiologist only.** The rationale statement in Q1 needs revising. The National HF audit states that “86% of patients received an echocardiogram (down from 92% in 2014/15) with rates higher for those admitted to cardiology (93%) rather than general medical (82%) wards”, again suggesting that even as an inpatient. Greater emphasis on referral to Cardiology as inpatient is required. There continues to be variability with access to NTproBNP and lack of appropriate use that would trigger specialist review. Equity of access is variable and commissioners should seek to address this. Many services are struggling to meet standard with lack of echo slots/physiologists and specialists to review patients. Commissioners and providers should seek to address this. This has been further highlighted in NHSE recovery plan for elective care. NTproBNP use should be encouraged over BNP. | Please see below documents highlighting the continued issues with poor diagnosis rates and access to relevant tests/specialists: Bottle A, Kim D, Aylin P et al (2017). [Routes to diagnosis of heart failure: observational study using linked data in England](https://heart.bmj.com/content/104/7/600). Heart. 2018;104:600-605[Heart-Failure-A-Blueprint-For-Change-Oct-2020-3.pdf (bsh.org.uk)](https://www.bsh.org.uk/wp-content/uploads/2020/10/Heart-Failure-A-Blueprint-For-Change-Oct-2020-3.pdf)[NHFA-Domain-Report\_2021\_FINAL.pdf (nicor.org.uk)](https://www.nicor.org.uk/wp-content/uploads/2021/10/NHFA-Domain-Report_2021_FINAL.pdf)National Institute for Cardiovascular Outcomes Research (2019). Heart Failure Audit 2019 summary report (2017/18 data)[NHS Long Term Plan v1.2 August 2019](https://www.longtermplan.nhs.uk/wp-content/uploads/2019/08/nhs-long-term-plan-version-1.2.pdf)[C1466-delivery-plan-for-tackling-the-covid-19-backlog-of-elective-care.pdf (england.nhs.uk)](https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2022/02/C1466-delivery-plan-for-tackling-the-covid-19-backlog-of-elective-care.pdf)[NICE impact Diagnostic pathology](https://www.nice.org.uk/Media/Default/About/what-we-do/Into-practice/measuring-uptake/NICE-impact-diagnostic-pathology.pdf)Myhre PL, Vaduganathan M, Claggett B, Packer M, Desai AS, Rouleau JL, Zile MR, Swedberg K, Lefkowitz M, Shi V, McMurray JJV, Solomon SD. J Am Coll Cardiol. 2019 Mar 26;73(11):1264-1272. doi: 10.1016/j.jacc.2019.01.018. Epub 2019 Mar 4. PMID: 30846338; PMCID: PMC7955687. |
|  | SCM3 | **Diagnosis**Merge statements 1 and 2 | Yes, both statements 1 and 2 are about patients having an echo and specialist assessment when they have been referred by their GP. Statement 2 gives the time scale (two weeks) based on very high natriuretic peptide levels. The NICE 2018 Chronic Heart Failure guideline suggests all people should be seen within six weeks so we might want to add that in too.I do wonder if we have missed a step though. The first thing is to recognise this might be heart failure and do a natriuretic peptide test which does not always happen. I have suggested a new additional quality standard below. |  |
|  | SCM3 | **Diagnosis**Merge statements 1 and 2 | NICE Chronic Heart Failure guideline 2018 recommendation: ‘Measure NT-proBNP in people with suspected heart failure [2018]’.Our research published in the European Heart Journal this year found that three in every four patients did not have a natriuretic peptide test prior to heart failure diagnosis.The NICE Acute Heart Failure Quality Standard states: ‘Adults presenting to hospital with new suspected acute heart failure have a single measurement of natriuretic peptide’ so we could use similar wording for patients with new suspected chronic heart failure in primary care. | NICE Chronic Heart Failure guideline 2018: [https://www.nice.org.uk/guidance/ng106/chapter/Recommendations - diagnosing-heart-failure](https://www.nice.org.uk/guidance/ng106/chapter/Recommendations#diagnosing-heart-failure)European Heart Journal paper: <https://academic.oup.com/eurheartj/article/43/9/881/6437771>NICE Acute Heart Failure Quality Standard One: <https://www.nice.org.uk/guidance/qs103/chapter/Quality-statement-1-Single-measurement-of-natriuretic-peptide> |
|  | Vifor Pharma UK | **Diagnosis**Merge statements 1 and 2 | Yes we agree. |  |
|  | NHSE | **Diagnosis**Merge statements 1 and 2 | Yes, agree. NTproBNP thresholds should be explicit. |  |
|  | NHSE | **Diagnosis**Merge statements 1 and 2 | Co-morbidities for HF are addressed and patients optimised. Eg HTN/AF/valve disease/COPD/diabetes/CKD inc albuminuria.This improves outcomes |  |
|  | NHS England and NHS Improvement | **Diagnosis**Merge statements 1 and 2 | Yes, we agree with this proposal |  |
|  | SCM4 | **Diagnosis**Merge statements 1 and 2 | Both statements relate to the diagnosis of heart failure but should not be combined. Both areas are significantly important to have individual focus with the importance of linkage. Combining both statements would dilute their significance and the outcome of the patient.Statement 1 – This statement relates to the clinical process of assessing and diagnosing a person with suspected heart failure. This statement is about the clinical processes.Statement 2 – This statement relates to the severity and timescales a person with suspected heart failure is processed through the system. Although this statement doesn’t go anywhere near as to legally pin down a process, like the legal obligation for a person with suspected cancer to be seen by specialists within 2 weeks, this statement is about timescale. I do not agree that combining these two statements has any value and, in many respects, is proposing the combination of two separate channels relating to diagnosis – clinical process and timescale. |  |
|  | SCM4 |  | I would like to question this sentence. “The echocardiogram will show any valve disease and assess the function of the left ventricle.” Does this mean that the quality standard does not cover the needs of people with HFpEF? Or the dysfunctionality of their heart other than their LV? Shouldn’t it cover all heart failure. | In line with the latest clinical guidelines <https://academic.oup.com/eurheartj/article/42/36/3599/6358045?login=false>  |
|  | Novartis Pharmaceuticals UK Ltd | **Diagnosis**Merge statements 1 and 2 | While we agree with the proposal to merge the two statements on diagnosis, we’d like to note that the use of NT-proBNP or BNP testing as an exclusion test for heart failure (before echocardiogram is conducted) is not explicitly stated. Quality statement 2 refers to ‘very high levels of serum natriuretic peptides’ in the diagnostic pathway but does not explicitly state that an NT-proBNP or BNP test should be conducted in the first instance to rule-out the possibility of heart failure. Since this is a simple and inexpensive step to take in the early identification of heart failure – and has been recommended within key British Society for Heart Failure (BSH) and European Society of Cardiology (ESC) guidance – we propose that the use of NT-proBNP or BNP testing is included in the consolidated quality statement. |  |
|  | Novartis Pharmaceuticals UK Ltd | **Diagnosis**Merge statements 1 and 2 | Inclusion of NT-proBNP or BNP testing in the diagnostic quality statement (either to be included within the proposed merged statement or within a standalone statement, depending on what the Committee feel is most appropriate)Several key clinical bodies and stakeholder groups, such as the British Society for Heart Failure (BSH), The European Society of Cardiology (ESC) and The Alliance for Heart Failure have emphasised the critical importance of accurate, early identification of heart failure to improve patient outcomes. NT-proBNP or BNP tests act as simple, inexpensive exclusion tests for heart failure by measuring levels of serum natriuretic peptides before the need for a (more expensive and resource intensive) echocardiogram to confirm diagnosis. | The BSH has emphasised in [A Position Statement](https://www.bsh.org.uk/wp-content/uploads/2020/05/Covid-HF-Provision-Final-REV-May-2020.pdf) that heart failure service provisions should include as a minimum NTproBNP/BNP for those with possible new diagnosis of HF.The [2021 ESC Guidelines](https://academic.oup.com/eurheartj/article/42/36/3599/6358045?login=true) for the diagnosis and treatment of acute and chronic heart failure recommends the measurement of BNP and NTproBNP, if available.The Alliance for Heart Failure has emphasised the need to prioritise the use of NT-proBNP testing to improve early identification of heart failure in the 2020 [Call to Action](https://allianceforheartfailure.org/heart-failure-a-call-to-action/) report.The newly published [PCN DES](https://www.england.nhs.uk/wp-content/uploads/2022/03/B1357-Network-Contract-Directed-Enhanced-Service-contract-specification-2022-23-primary-care-network-requireme.pdf) emphasises the criticality of prioritising heart failure identification among major CVD risk factors such as AF, hypertension and high cholesterol, including specifically through the timely use of NT-proBNP testing.  |
|  | SCM5 | **Diagnosis**Merge statements 1 and 2 | Agree – though diagnosis needs to be timely. Ideally NICE QS would nt - it should be stratified according to NTproBNP level, as per NICE guidelines (echocardiography and HF specialist assessment in <2 weeks if BNP >2000, <6 weeks if BNP 400-2000) |  |
|  | SCM5 | **Diagnosis**Merge statements 1 and 2 | Timely diagnosis, by a specialist* Merging QS 1 + 2, but emphasising the triaging urgency according to NTproBNP levels (as above).
* Emphasis on those at highest risk (NTproBNP >2000), where a 2 week assessment needs treated as a ‘red-flag’ in the same way cancer diagnosis is.
* Diagnosis then made based on echocardiography and HF specialist input

Early recognition and diagnosis of HF can reduce patient morbidity and mortality, by timely introduction of guideline directed medical therapies at an earlier more treatable stage, with effects on HF hospitalisation and mortality.Those at highest risk, stratified according to BNP levels per NICE guidelines, should be highest priority and see in same light as suspected cancer – with a ‘red-flag’ 2 week echocardiogram and HF specialist opinion an absolute necessity. Within 6 weeks for those with NTproBNP levels 400-2000.But while NTproBNP testing in primary care has increased over time, most patients still do not have an NTproBNP level checked prior to diagnosis – with approximately 70-80% of HF being diagnosed in hospital, despite 40% having visited a primary care provider/had HF symptoms in the preceding 6 months prior to admission. Specialist opinion and echocardiography remain key in diagnosis and then ongoing management. However, we know from NICOR national HF audit data that “There is considerable room for improvement in the use of echocardiography in the assessment and diagnosis of HF” and access to specialist care even as an in-patient is suboptimal. This difficulty in getting access to opinion and echo is worse in primary care, and needs to be a focus for service commissioning for future to ensure onward progress for care quality and outcomes. | Long term trends in natriuretic peptide testing for heart failure in UK primary care: a cohort study. AK Roalfe et al. European Heart Journal 2022;43(9):881-891. <https://doi.org/10.1093/eurheartj/ehab781>The prehospital patient pathway and experience of care with acute heart failure: a comparison of two health care systems. J McCambridge et al ESC Heart Failure 2021;8(2):1076-1084. <https://doi.org/10.1002/ehf2.13089>Disparity in the Setting of Incident Heart Failure Diagnosis. AT Sandhu et al Circulation Heart Failure 2021;14:e008538. <https://doi.org/10.1161/CIRCHEARTFAILURE.121.008538>Characteristics and outcomes of patients with suspected heart failure referred in line with National Institute for Health and Care Excellence guidance. A Zheng et al. Heart 2020;106;1579-1586. <http://dx.doi.org/10.1136/heartjnl-2019-316511> <https://www.bsh.org.uk/wp-content/uploads/2020/10/Heart-Failure-A-Blueprint-For-Change-Oct-2020-3.pdf><https://www.nicor.org.uk/wp-content/uploads/2021/10/NHFA-Domain-Report_2021_FINAL.pdf> |
|  | SCM6 | **Diagnosis**Merge statements 1 and 2 | Yes, agree. But we should keep the time points. So urgent vs. non-urgent. |  |
|  | SCM6 | **Diagnosis**Merge statements 1 and 2 | Diagnosis is still not optimal“There is a downward trend in the percentage receiving an echocardiogram, the gold standard diagnostic test, now at 86% down from 92% in 2014/15. There is considerable variation in the use of this essential diagnostic tool across institutions, leaving room for improvement as only 60% of hospitals achieve the benchmark of ≥90% having an echocardiogram. This is significantly worse for older people as only 54% of those ≥75 years receive one.” | National Heart Failure Audit (NHFA) 2021S. |
|  | SCM7 | **Diagnosis**Merge statements 1 and 2 | No, these statements relate to two very different things and are trying to achieve two very different things.Statement 1 is trying to make sure that all people sent for investigation into suspected HF (a) have an echo, the gold standard for HF diagnosis, plus (b) a review by someone specialised in HF who can interpret the echo, look at other HF factors and immediately initiate guideline directed therapy (as appropriate).Statement 2 is trying to make sure that those who are highly likely to have HF (suspected HF plus elevated BNP/NT-proBNP) are seen urgently to eliminate the risk of a permanent deterioration in their condition. This guideline recommendation and subsequent QI was introduced to emulate the approach to cancer where urgent cases are seen within 2 weeks, ideally before complexity and irreversibility set in. |  |
|  | SCM1 | **Cardiac Rehabilitation** | Yes. |  |
|  | BACPR | **Cardiac Rehabilitation** | Yes. However, there remain areas of the country where rehabilitation for this group is not yet offered due to funding issues Combining might take the focus away from ensuring all patients can be offered a programme. A rehabilitation programme should offer more than just exercise and that can be encompassed in combining 6&7. |  |
|  | BACPR | **Cardiac Rehabilitation** | There are now evidence based home based rehabilitation options for heart failure patients. Digital / web based options have progressed rapidly during the pandemic and these provide patients with a range of locations and times. |  |
|  | BACPR | **Cardiac Rehabilitation** | NACR 2020 report recorded a 1.4% drop in people with HF accessing CR in the first six months of Covid-19. This may appear small but is equivalent to a 20% relative reduction which is likely to lead to an increased burden on NHS services through greater hospital readmissions.[www.bhf.org.uk/informationsupport/publications/statistics/national-audit-of-cardiac-rehabilitation-quality-and-outcomes-report-2020#](http://www.bhf.org.uk/informationsupport/publications/statistics/national-audit-of-cardiac-rehabilitation-quality-and-outcomes-report-2020)The NACR has recommended that programmes:Actively promote comprehensive home-based, group-based and hybrid versions of CR and ensure appropriate support of staff (including training) is available to deliver these according to BACPR national standards. Individual programmes differ in the precise exercises used, are of different duration, involve variable amounts of home exercise and have different referral criteria. | NACR audit confirms low numbers taking up cardiac rehabilitation. <https://www.bhf.org.uk/informationsupport/publications/statistics/national-audit-of-cardiac-rehabilitation-quality-and-outcomes-report-2021>Paper reporting on BACPR/BSH webinar session highlighting different approaches to rehabilitation for those with heart failure.Brooks, P., 2022. Heart failure rehabilitation: a silver lining of the COVID-19 pandemic?. *British Journal of Cardiac Nursing*, pp.1-6.<https://doi.org/10.12968/bjca.2022.0023> |
|  | Boehringer Ingelheim | **Cardiac Rehabilitation** | Yes, we agree this suggestion, we still feel it is important to collect existing quality measures under this standard. |  |
|  | British Society for Heart Failure (BSH) | **Cardiac Rehabilitation** | Agree, different delivery methods are still part of the same quality statement. |  |
|  | British Society for Heart Failure (BSH) | **Cardiac Rehabilitation** | **All adults with stable chronic heart failure should be offered a programme of cardiac rehabilitation.** * **ALL** heart failure patients MUST be offered Cardiac rehabilitation (where appropriate)
* Alternative delivery of cardiac rehabilitation must be offered to improve uptake
* Sessions during and outside working hours, and the choice of undertaking the programme at home, in the community or in a hospital setting should be offered.

Psychological needs of people with heart failure should be integrated into the cardiac rehabilitation settingReferral and uptake of CR for patients with HF remain very low. There has been no improvement in this at all. “16% of patients with heart failure are referred as an in-patient for cardiac rehabilitation (22% for those admitted to a cardiology ward, ~10% for those admitted to other wards) – target >85%”. This is despite the NICE recommendation that all HF patients should be referred. Potentially uptake is affected by times offered, ability to attend, cost implications to patients. There remains variability across sex, deprivation and ethnicity. Differing delivery methods for CR should be offered i.e. Digital, virtual, evenings, weekends, online education resources. The denominator may be best divided into differing delivery methods i.e. out of office hours and virtual/digital delivery in order to review compliance with standard. | Please see below documents evidencing poor uptake and referral rates of cardiac rehabilitation in HF:[NCAP-Aggregate\_-Report\_2021\_FINAL.pdf (nicor.org.uk)](https://www.nicor.org.uk/wp-content/uploads/2021/10/NCAP-Aggregate_-Report_2021_FINAL.pdf)[Cardiac rehabilitation: the big picture | BHF](https://www.bhf.org.uk/for-professionals/healthcare-professionals/data-and-statistics/cardiac-rehabilitation-the-big-picture)[nacr-quality-and-outcomes-report-2019.pdf](file:///C%3A%5CUsers%5Cbc302%5Cdownloads%5Cnacr-quality-and-outcomes-report-2019.pdf) |
|  | SCM2 | **Cardiac Rehabilitation** | Agree, different delivery methods are still part of the same quality statement. However, CR is not able to be routinely offered at different times. Can this be split into A and B in order to identify where services are not meeting standard? Suggest outside of office hours and virtually/online are different asks. |  |
|  | SCM2 | **Cardiac Rehabilitation** | 1. **Adults with stable chronic heart failure are offered an exercise-based programme of cardiac rehabilitation. Sessions during and outside working hours, and the choice of undertaking the programme at home, in the community or in a hospital setting should be offered.**
* **ALL** heart failure patients MUST be offered Cardiac rehabilitation

Alternative delivery of cardiac rehabilitation must be offered to improve uptake.Referral and uptake of CR for patients with HF remain very low. There has been no improvement in this at all. “16% of patients with heart failure are referred as an in-patient for cardiac rehabilitation (22% for those admitted to a cardiology ward, ~10% for those admitted to other wards) – target >85%”. This is despite the NICE recommendation that all HF patients should be referred. Potentially uptake is affected by times offered, ability to attend, cost implications to patients. There remains variability across sex, deprivation and ethnicity. Differing delivery methods for CR should be offered i.e. Digital, virtual, evenings, weekends , online education resources. The denominator may be best divided into differing delivery methods i.e. out of office hours and virtual/digital delivery in order to review compliance with standard. | Please see below documents evidencing poor uptake and referral rates of cardiac rehabilitation in HF:[NCAP-Aggregate\_-Report\_2021\_FINAL.pdf (nicor.org.uk)](https://www.nicor.org.uk/wp-content/uploads/2021/10/NCAP-Aggregate_-Report_2021_FINAL.pdf)[Cardiac rehabilitation: the big picture | BHF](https://www.bhf.org.uk/for-professionals/healthcare-professionals/data-and-statistics/cardiac-rehabilitation-the-big-picture)[nacr-quality-and-outcomes-report-2019.pdf](file:///C%3A%5CUsers%5Cbc302%5Cdownloads%5Cnacr-quality-and-outcomes-report-2019.pdf) |
|  | SCM3 | **Cardiac Rehabilitation** | Yes, makes sense as no point offering cardiac rehab if not possible for patients to undertake it e.g. housebound need at home, etc. |  |
|  | Vifor Pharma UK | **Cardiac Rehabilitation** | Yes we agree. |  |
|  | NHSE | **Cardiac Rehabilitation** | Yes, agree. Explicit comment on deprived/hard to reach communities should be commented on. |  |
|  | NHS England and NHS Improvement | **Cardiac Rehabilitation** | Please see comment below. We note that the list of Stakeholders for this work are and these organisations are best placed to comment on this question* The Chartered Society of Physiotherapist
* Association of Chartered Physiotherapists in Cardiac Rehabilitation

Association of Chartered Physiotherapists in Respiratory Care |  |
|  | SCM4 | **Cardiac Rehabilitation** | I am happy to see both statements merged to create a more robust and consistent offering to healthcare providers of how to deliver Cardiac Rehabilitation. Considering the poor offering of CR, by payers, which to be honest is a national disgrace and would not be accepted in Cancer, to patients with stable heart failure, combining both statements make sense to demonstrate further value to the providers.I do however have an opinion as to how this new combined statement should look like. CR is more than just exercise and nutrition. It is helping people to realise the value, in the teachings, to deliver behavioural change which creates a longevity effect.CR should also be focussed on psychosocial support and peer to peer support for the patient / carer / family member. |  |
|  | Novartis Pharmaceuticals UK Ltd | **Cardiac Rehabilitation** | We are in agreement with the proposed consolidation of quality statements. |  |
|  | SCM5 | **Cardiac Rehabilitation** | Agree in principle, though I suspect many places are NOT currently offering flexible timings/locations for CR, so perhaps need to be a sub-point or remain separate ,with first point being that CR must be offered, and second point being that sessions need to offer the above. |  |
|  | SCM5 | **Cardiac Rehabilitation** | Every patient with stable chronic heart failure must be offered CRCardiac rehab is associated with a significant prognostic benefit in HF patients and this is regardless of age, sex, frailty, co-morbidities or ejection fraction. Despite such convincing outcome data, only 15% of patients from the most recent NICOR dataset were noted to be referred to cardiac rehab. Current QS states that CR should eb offered in various settings and times, but many places do not currently offer this. This data should be collected. | <https://www.bhf.org.uk/for-professionals/healthcare-professionals/data-and-statistics/cardiac-rehabilitation-the-big-picture>K Kamiya et al. Multidisciplinary Cardiac Rehabilitation and Long-Term Prognosis in Patients With Heart Failure. Circulation Heart Failure 2020;13. <https://doi.org/10.1161/CIRCHEARTFAILURE.119.006798><https://www.nicor.org.uk/wp-content/uploads/2021/10/NHFA-Domain-Report_2021_FINAL.pdf> |
|  | SCM6 | **Cardiac Rehabilitation** | Yes, agree. We may need to think about the new virtual option for cardiac rehabilitation. |  |
|  | SCM6 | **Cardiac Rehabilitation** | Cardiac Rehabilitation“Cardiac rehabilitation is too low at 15% (22% for those on a cardiology ward). A significant investment is needed if hospitals in England are to reach the NHS CVD goal of 85% of those eligible accessing care. Fresh approaches for delivering access to cardiac rehabilitation need to be considered.” | As above |
|  | SCM7 | **Cardiac Rehabilitation** | At one level I could agree with this, if the combination measures the provision of CR *and* the choices associated with it.However, one major issue is that this QI under-recognises the issue with CR in all its forms. CR is significantly under-prescribed (see the HF Audit) and the service does not have a clear definition of what it needs to include. The current QI is focused on exercise but there is a much broader need for Rehabilitation in all of its forms, which includes: exercise, education, psychosocial support and the involvement/support of the partner/family. The latest HF Guideline from the European Society of Cardiology attempts to address this in part. (DoI, I was a patient member of this GL.)(Also see Cardiac Rehabilitation for Patients With Heart Failure, JACC Expert Panel, <https://doi.org/10.1016/j.jacc.2021.01.030>.) |  |
|  | SCM7 | **Cardiac Rehabilitation** | As discussed above, broadening the definition of CR (cardiac rehabilitation) and then improving its provision and prescription is essential to patient Quality of Life.Addressing the physical status of patients with medical therapies is only addressing part of the problem that HF patients face. Living with a chronic disease like HF means living with a significant impact on the rest of your life and the lives of those around you. Current services focus largely on addressing the physical but fail to meet the educational needs of patients which would help them to be more effective at self-care (and be more adherent), they also fail to meet the full psychological consequences for a person living with a chronic condition (and for the psychological needs of the patient’s partner/family) and fail to target adequately the physical rehabilitation of the patient sufficient to improve their status and improve the likelihood of the patient returning to work and/or contributing to his/her household and society. Many/most clinicians appreciate this argument but when guidelines demand evidence from RCTs before recommendations may be put in place, there have historically been few large, high-quality studies as they are expensive to conduct and no drug company will benefit from the outcome (and therefore not pay for the study). Further, budgets available to clinicians have largely been directed at fixing the physical problem, there have been few or no funds available for the rehabilitational, emotional, psychological and educational needs of those whose physical status has been managed to its optimum.Consequently the difficulty with putting CR arguments in QIs (and guidelines) has been the poor quality and/or low number of studies in to CR. However, more and more examples of the value of CR are emerging (see the two papers cited above) and we know from the HF Audit (cited in this questionnaire’s preamble) that CR is offered in only 20% of acute patients discharged from hospital (noting that there may be some further prescribing in local cardiac services, but any such data are not captured). Further, not all patients are diagnosed with HF in the acute setting and so the prescribing of CR is likely significantly under 20%. HQIP has plans to merge some of the CR audit data across England but this is still in the planning phase. | See argument to left and papers cited above. Further papers are available, notably from the European low countries and Switzerland.The following paper offers very clear evidence of the effectiveness of exercise as part of a rehab programme, but is limited to exercise.(Participation in exercise-based cardiac rehabilitation is related to reduced total mortality in both men and women: results from the SWEDEHEARTregistry, European Journal of Preventive Cardiology, doi:10.1093/eurjpc/zwab083.)The following paper, whilst calling for action on secondary prevention, cites evidence of “both the effectiveness as well as the cost-effectiveness of comprehensive cardiac rehabilitation in improving exercise capacity and quality of life, and in reducing cardiovascular mortality and morbidity.”(The future is now: a call for action for cardiac telerehabilitation in the COVID-19 pandemic from the secondary prevention and rehabilitation section of the European Association of Preventive Cardiology, European Journal of Preventive Cardiology, doi:10.1177/2047487320939671.) |
|  | SCM1 | **Cardiac Rehabilitation** | Well this was impacted upon by COVID which forced some services to become more flexible to a degree that they consider doing the sessions remotely. In addition, the most recent guidelines considered both group rehabilitation and rehabilitation at home. |  |
|  | Boehringer Ingelheim | **Cardiac Rehabilitation** | We agree that this should now be classified as a main standard as advances in digital technology enable patients’ flexible access to cardiac rehab services. An example of a such technology is MyHeart. |  |
|  | British Society for Heart Failure (BSH) | **Cardiac Rehabilitation** | It is not routine to provide this due to lack of resources. This does not alter the fact it should be aimed for. Sessions during and outside working hours, and the choice of undertaking the programme at home, in the community or in a hospital setting should be offered.It may be prudent to add as Part A and Part B of the same standard as above.  |  |
|  | SCM2 | **Cardiac Rehabilitation** | It is not routine to provide this due to lack of resource. This does not alter the fact it should be aimed for.It may be prudent to add as Part A and Part B of the same standard as above.  |  |
|  | SCM3 | **Cardiac Rehabilitation** | Provision of cardiac rehab is still very variable. There is progress but still big gaps in provision. Professor Rod Taylor has been funded by NIHR to roll out the REACH programme of cardiac rehabilitation for people with heart failure. |  |
|  | Vifor Pharma UK | **Cardiac Rehabilitation** | No comment |  |
|  | NHSE | **Cardiac Rehabilitation** | There is variation in provision – it is important to keep this statement in to ensure rehab is aspirational and prioritised |  |
|  | NHS England and NHS Improvement | **Cardiac Rehabilitation** | We do not collect this data within our team. We suggest working with local providers and systems of cardiac rehabilitation alongside those listed above to gather this information |  |
|  | SCM4 | **Cardiac Rehabilitation** | It should be routine to offer cardiac rehab too all patients with stable chronic heart failure either HFrEF or HFpEF. However, as we know, the amount of patient offered is still poor.<https://www.bhf.org.uk/for-professionals/healthcare-professionals/data-and-statistics/cardiac-rehabilitation-the-big-picture>This is clearly unacceptable. The place of delivering CR is not exclusively face to face delivery in hospitals or clinics. A combination of the REACH-HF programme and the Pandemic has given stakeholders the impetus to pull CR into the 21st century. ICS’s and the newly formed cardiac networks are considering hybrid programmes around face to face in clinics, at home and flexible formats of digital delivery.The quality standard must shift perceptions of current CR provision to include the full width of rehabilitation.<https://www.bmj.com/content/373/bmj.n1270> |  |
|  | SCM5 | **Cardiac Rehabilitation** | While routine for some places, it remains sadly not the norm, and so for this reason I feel should be kept separate. |  |
|  | SCM6 | **Cardiac Rehabilitation** | COVID-19 had its impact on making cardiac rehabilitation more flexible. So based on our experience, the provisions for cardiac rehabilitation are now more flexible. However, access to cardiac rehabilitation may not be available in all centres and uptake is variable.  |  |
|  | SCM6 | **Cardiac Rehabilitation** | “Cardiac rehabilitation is too low at 15% (22% for those on a cardiology ward). A significant investment is needed if hospitals in England are to reach the NHS CVD goal of 85% of those eligible accessing care. Fresh approaches for delivering access to cardiac rehabilitation need to be considered.” |  |
|  | SCM7 | **Cardiac Rehabilitation** | I cannot be sure but I believe not. The whole area of provision is poor and prescription low (and the scope narrow, see comments under (2)). COVID has demonstrated that home rehab can be effective, but I do not know that facilities have been established which are more in tune with people’s lives and availability. Further, as discussed in (2), the Quality Standard should no longer be limited to exercise alone but to the full spectrum of rehabilitation needs.(See Virtual and in-person cardiac rehabilitation, BMJ 2021;373:n1270, <http://dx.doi.org/10.1136/bmj.n1270>.) |  |
|  | Boehringer Ingelheim | **Service Delivery**MDTs | Local evidence of a Heart Failure MDT comprised of a minimum of a lead physician with subspecialty training in heart failure, a specialist heart failure nurse, a healthcare professional with expertise in specialist prescribing for heart failure. This MDT should have capacity to diagnose heart failure, give information to people newly diagnosed with heart failure, manage newly diagnosed, recently decompensated or advanced heart failure (NYHA [New York Heart Association] class III to IV), optimise treatment, start new medicines that need specialist supervision, continue to manage heart failure after an interventional procedure such as implantation of a cardioverter defibrillator or cardiac resynchronisation device and manage heart failure that is not responding to treatment. Patients should also have a comprehensive discharge plan in line with the recommendation from the BSH (professional society). In addition to this, patients should receive information about how to self-manage their condition, patient support groups (The patient society, Pumping Marvellous has excellent resources) and how to access specialist input should their condition deteriorate.The core specialist heart failure multidisciplinary team (MDT) should work in collaboration with the primary care team, and should include:• a lead physician with subspecialty training in heart failure (usually a consultant cardiologist) who is responsible for making the clinical diagnosis• a specialist heart failure nurse• a healthcare professional with expertise in specialist prescribing for heart failure.1.1.2 The specialist heart failure MDT should:• diagnose & classify heart failure• give information to people newly diagnosed with heart failure (see the section on giving information to people with heart failure)• manage newly diagnosed, recently decompensated or advanced heart failure (NYHA [New York Heart Association] class III to IV)• optimise treatment• start new medicines that need specialist supervisionChronic heart failure in adults: diagnosis and management (NG106)• continue to manage heart failure after an interventional procedure such asimplantation of a cardioverter defibrillator or cardiac resynchronisation device• manage heart failure that is not responding to treatment. | <https://www.nice.org.uk/guidance/ng106> section 1.1<https://www.bsh.org.uk/wp-content/uploads/2020/06/Guidance-for-discharging-from-HFSN-service-BSH-endorsed.pdf>  |
|  | SCM3 | **Service Delivery**MDTs | Access to Heart Failure Nurse Specialist.Access to HFNS is key to ongoing patient care and is a recommendation as part of multidisciplinary team. Services vary with sometimes only patient with HFrEF eligible to be seen. |  |
|  | SCM3 | **Service Delivery**MDTs | Offer extended first appointment for people with a new diagnosis of heart failure.NICE Chronic Heart Failure guideline recommendation: ‘The specialist heart failure MDT should offer people newly diagnosed with heart failure an extended first consultation, followed by a second consultation to take place within 2 weeks if possible [2018]’.I am not sure if there is evidence that this is taking place yet. |  |
|  | SCM6 | **Service Delivery**MDTs | Supporting more integrated HF care and multidisciplinary HF teams that include physicians, nurses, pharmacists and other healthcare professionals across primary and secondary care“A unifying theme to address all these points would be early and continuing involvement of the specialist team as first outlined in the NICE guidance of 2014.” - this was further emphasised in the 2018 NICE HF guidelines | As above - this:[NHFA-Key-Messages-2021.pdf (nicor.org.uk)](https://www.nicor.org.uk/wp-content/uploads/2021/10/NHFA-Key-Messages-2021.pdf)See NICE HF guidelines 2018. |
|  | British Society for Heart Failure (BSH) | **Service Delivery**Care reviews and care plans | **All patients with heart failure, regardless of ejection fraction should have a lifelong care plan*** Commission more heart failure nurses across all health settings to reflect 2-4 HF nurses per 100,000 in order to meet Standards and support delivery of the care plan when patients require a HF specialist
* Utilise the multi-disciplinary team to promote and implement a care plan across the patient pathway including doctors pharmacists, physiologists and allied professions across primary, seconday and teriary care
* All medication change should be monitored after 2 weeks (although this is less important for SGLT2i)
* Alternative/complementary methods of review should be considered e.g. Remote monitoring, digital tools, self-care

All patients should have access to palliative and end-of-life care where applicableAccording to NICE impact report February 2021 only 6% of patients in the community have a care plan.‘It is recommended that people admitted to hospital with suspected acute heart failure have early and continuing input from a specialist team. This can help to ensure rapid diagnosis and contribute to reduced readmissions and better quality of life. The multidisciplinary team should include specialist nurses and work with the primary care team to develop a care plan, however workforce is an issue and there is a need to recruit more specialist nurses and increase heart failure competencies for all HCPs managing people with heart failure. Patients with heart failure often have other problems such as diabetes and kidney disease and may end up attending several specialist clinics. The development of new classes of drugs for the treatment of both heart failure and diabetes offers an opportunity to promote a more holistic approach to treatment.Long-term care for heart failure patients needs to be fully integrated.Again, all medication changes should be monitored within two weeks according to individual patient needs/SmPC either by:a) Renal blood testb) Patient self-reportingc) Remote monitoring/reviewd) Face to face review Reference to digital health/self-care apps, remote monitoring and virtual review could be highlighted here to support achieving the standard. | https://www.nice.org.uk/about/what-we-do/into-practice/measuring-the-use-of-nice-guidance/impact-of-our-guidance/nice-impact-cardiovascular-disease-management[Call for trusts to urgently increase number of heart failure nurses | Nursing Times](https://www.nursingtimes.net/clinical-archive/cardiovascular-clinical-archive/call-for-trusts-to-urgently-increase-number-of-heart-failure-nurses-22-02-2021/#:~:text=The%20Alliance%20for%20Heart%20Failure,and%20four%20per%20100%2C000%20people.)Jayne Masters et al.(2019).British Journal of Cardiac increasing the heart failure nursing workforce: recommendations by the British Society for Heart Failure Nurse Forum.Published Online:8 Nov2019 <https://doi.org/10.12968/bjca.2019.0109>BNF (2022) British National Formulary. National Institute of Health and Care Excellence (NICE). https://bnf.nice.org.uk |
|  | British Society for Heart Failure (BSH) | **Service Delivery**Care reviews and care plans | **Adults with stable heart failure should receive continuous care, ideally with a review every 6 months in primary care but with ongoing access to specialist advice.*** Responsibility for stable heart failure lies with primary care or community heart failure services
* Clear communication channels and access to advice and guidance from specialists for both primary care and patients
* The Heart Failure MDT should include a GP/primary care/community representative
* An ECG should be performed at least annually, to ensure patients have not become suitable candidates for CRT,or have developed atrial fibrillation.

This should be specific in terms of:a) Review by HF teamb) Primary care providerChronic heart failure in adults: diagnosis and management (NG106) section 1.1.4 suggests this may be a primary care provider as part of a long term condition review. Stable HF patients should be reviewed by Primary care providers with advice and guidance accessible with specialists. QOF incentivises for review within last 12 months “HF007 The percentage of patients with a diagnosis of heart failure on the register, who have had a review in the preceding 12 months, including an assessment of functional capacity and a review of medication to ensure medicines optimisation at maximal tolerated doses.”Emphasis on Primary care managing stable heart failure with access to advice and guidance from specialist team. HF becomes unstable and improved pathways with access to specialists is vital in avoiding deterioration and admission to hospital. NICE recommends that a GP be part of the HF MDT. | Please see below supporting information regards NICE review guidelines and QOF:[Chronic heart failure in adults: diagnosis and management (nice.org.uk)](https://www.nice.org.uk/guidance/ng106/resources/chronic-heart-failure-in-adults-diagnosis-and-management-pdf-66141541311685)<https://cks.nice.org.uk/topics/heart-failure-chronic/goals-outcome-measures/qof-indicators/>  |
|  | SCM2 | **Service Delivery**Care reviews and care plans | 1. **QS5 Adults with stable chronic heart failure have a review of their condition at least every 6 months in Primary care with access to specialist advice and guidance.**
* Explicit regards responsibility for review – stable HF primary care
* Access to advice and guidance from specialists
* GP’s should be part of the HF MDT
* **All** HF patients must have a care plan from specialist team. Any changes recorded and reported back across MDT
* Care plans should reflect all stages of disease progression and from diagnosis to end of life care. It should include reference to psychological wellbeing and functional status.The care plan should be shared with all appropriate care providers with patient consent.

This should be specific in terms of:a) Review by HF teamb) Primary care providerChronic heart failure in adults: diagnosis and management (NG106) section 1.1.4 suggests this may be a primary care provider as part of a long term condition review. Stable HF patients should be reviewed by Primary care providers with advice and guidance accessible with specilaists. QOF incentivises for review within last 12 months “HF007 The percentage of patients with a diagnosis of heart failure on the register, who have had a review in the preceding 12 months, including an assessment of functional capacity and a review of medication to ensure medicines optimisation at maximal tolerated doses ” This sits outside of the recommendation from NICE. Emphasis on Primary care managing stable heart failure with access to advice and guidance from specialist team. HF becomes unstable and improved pathways with access to specialists is vital in avoiding deterioration and admission to hospital. NICE recommends that a GP be part of the HF MDT. NICE makes a recommendation for patient care plan from the specialist team (1.1.7, 1.1.8, 1.1.9). Any changes to the care plan should be reported back to the specialist team to avoid deterioration in symptoms and prevent admission to hospital. | Please see below supporting information regards NICE review guidelines and QOF:[Chronic heart failure in adults: diagnosis and management (nice.org.uk)](https://www.nice.org.uk/guidance/ng106/resources/chronic-heart-failure-in-adults-diagnosis-and-management-pdf-66141541311685)<https://cks.nice.org.uk/topics/heart-failure-chronic/goals-outcome-measures/qof-indicators/>  |
|  | NHSE | **Service Delivery**Care reviews and care plans | Patients reviewed 6 monthly to include optimisation, education, self carePatients are not robustly followed up in primary care |  |
|  | NHSE | **Service Delivery**Care reviews and care plans | Patients who are severely frail [cfs7-9] or EOL to have individualised care plan.Patients may be better cared for in the community. |  |
|  | SCM4 | **Service Delivery**Care reviews and care plans | Due to the acknowledged variation of HF service provision, to ensure quality and consistency which directly impacts patient outcomes, care plans should be recognised as a key part of the revised Quality Standards. Every patient with heart failure should have a care plan. This would ensure that all members of the patient’s healthcare team, play an active part and understand the patient’s current clinical picture. A care plan for heart failure must also be written so that it is understandable for the patient and or the carer or family member. A care plan shared with the patient, carer and or family member may help to improve the patient’s ability to self-manage and self-care along with better communication between patient and family and their healthcare team. For the HCP’s it distributes knowledge between and specialist and generalist. | <https://www.nice.org.uk/guidance/ng106/chapter/Recommendations#giving-information-to-people-with-heart-failure> 1.17 |
|  | SCM5 | **Service Delivery**Care reviews and care plans | Post discharge review within 2 weeksHeart failure has a high post-discharge mortality, and since up to 80% of patients get their heart failure diagnosis in hospital the post discharge clinic is effectively the start of the chronic HF pathway for most patients. Specialist input early post discharge reduces rehospitalisation risk. But we know from NICOR that the percentage of patients being followed at this 2 week point is only 40%. | Bottle, A., Kim, D., Aylin, P., Cowie, M., Majeed, A. & Hayhoe, B. Routes to diagnosis of heart failure: observational study using linked data in England. Heart. 2018;104(7):600-605. <https://doi.org/10.1136/heartjnl-2017-312183>Lee CS, Tkacs NC, Riegel B. The influence of heart failure self-care on health outcomes: hypothetical cardioprotective mechanisms. *J Cardiovasc Nurs 2009;*24(3):179-87 Bradley EH, Sipsma H, Horwitz LI, *et al*. Hospital strategy uptake and reductions in unplanned readmission rates for patients with heart failure: a prospective study. *J Gen Intern Med 2015;*30(5): 605-11 <https://www.nicor.org.uk/wp-content/uploads/2021/10/NHFA-Domain-Report_2021_FINAL.pdf> |
|  | SCM5 | **Service Delivery**Care reviews and care plans | Every patient with stable chronic heart failure, regardless of ejection fraction, should have a lifelong care plan, including 6 monthly review with ongoing access to HF specialist advice.Patients with heart failure need to have access to care all along their patient journey from diagnosis to end of life. Once actively discharged from a HFNS team back to primary care, there is often a lack of further HF management in the community (despite the existence of QOF targets for HF care – which are outdated in terms of medical therapy and do not lead to significant changes in patient care) due to a lack of engagement between primary and secondary care. Ideally there should be an MDT direct to primary care which would enable GPs/primary care teams to have access to specialist HF opinion rapidly to ensure excellence in patient care. In this way GPs are part of the HF MDT, and patients have quick access to specialist opinion/input in the event of deterioration/need of medication maximisation. | <https://cks.nice.org.uk/topics/heart-failure-chronic/goals-outcome-measures/qof-indicators/> |
|  | SCM2 | **Service Delivery**Medication review at 2 weeks | QS 4 Adults with chronic heart failure have a review within 2 weeks of any change in the dose or type of their heart failure medication.• Not achievable in present form- should be explicit regards drug class and mode of review • Emphasis on commissioning of HF nursesReference to different methods of review i.e. remote monitoringNICOR data shows follow-up at 2 weeks post discharge poor at 40%. Overall only 56% of patients see a HF nurse and 46% have cardiology follow up. This puts the onus of responsibility on community services even if the change made in secondary care. This standard is not achievable in its present form. It is also not necessarily required depending on the medication changed. Blood tests are often reviewed in the case RASSi changes and if this is the case then this should be **explicit**. Secondary and Primary care providers cannot meet this requirement without HF specialist nurse services commissioned which are woefully under resourced and there is inequity provision across the UK. The statement should recommend increase in HF specialist nurse workforce to providers to address this gap. The statement could be written to state that all medication changes should be monitored within two weeks according to individual patient needs/SmPC either by:1. Renal blood test
2. Patient self-reporting
3. Remote monitoring/review
4. Face to face review

Reference to digital health/self-care apps, remote monitoring and virtual review could be highlighted here to support achieving the standard.  | Please see below supporting documentation regards inadequate number of HF nurses to meet this standard:[Call for trusts to urgently increase number of heart failure nurses | Nursing Times](https://www.nursingtimes.net/clinical-archive/cardiovascular-clinical-archive/call-for-trusts-to-urgently-increase-number-of-heart-failure-nurses-22-02-2021/#:~:text=The%20Alliance%20for%20Heart%20Failure,and%20four%20per%20100%2C000%20people.)Jayne Masters et al.(2019).British Journal of Cardiac increasing the heart failure nursing workforce: recommendations by the British Society for Heart Failure Nurse Forum.Published Online:8 Nov2019 <https://doi.org/10.12968/bjca.2019.0109>BNF (2022) British National Formulary. National Institute of Health and Care Excellence (NICE). https://bnf.nice.org.uk |
|  | Novartis Pharmaceuticals UK Ltd | **Service Delivery**Medication review at 2 weeks | Medicines optimisation: ensure medicines optimisation is included within the ‘rationale’ wording and ‘Definitions of terms’ for Quality Statement 4 and 5 to emphasise the urgency and importance of appropriate medicines optimisation.Medicines optimisation is critical to improving patient outcomes for heart failure due to the potential for rapid symptomatic worsening of the condition and associated survival statistics [[The National Heart Failure Audit (NHFA) 2021 Summary Report](https://www.nicor.org.uk/wp-content/uploads/2021/10/NHFA-Domain-Report_2021_FINAL.pdf)]. Ensuring patients are rapidly up-titrated to the maximum tolerated dose of appropriate medication is therefore crucial to improving survival rates and broader patient outcomes. Ensuring that a patient’s medication is optimised should also be a key component of their regular review. In order to reflect this adequately, we suggest that supporting ‘rationale’ wording for Quality Statement 4 and Quality Statement 5 is amended to include an increased emphasis on the ‘optimisation’ of medication. At present, the wording emphasises whether a patient’s medication should be ‘changed’, without highlighting the important need for optimisation as well. As well as this, we suggest that the wording in the ‘Definition of terms’ (review of medication, including need for changes and possible side effects) is also updated to reflect the focus on ‘optimisation’ as opposed to ‘review’. | Medicine optimisation is a key priority and focus for the NHS as outlined in the NICE guideline [Medicines optimisation: the safe and effective use of medicines to enable the best possible outcomes](https://www.nice.org.uk/guidance/ng5/chapter/introduction)The need for optimisation as part of the review of medication is called out in inclusion of HF007 as part of the Quality Outcome Framework clinical domains for Heart Failure starting from 2020.<https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/877314/sfe-directions-2020.pdf> [The National Heart Failure Audit (NHFA) 2021 Summary Report](https://www.nicor.org.uk/wp-content/uploads/2021/10/NHFA-Domain-Report_2021_FINAL.pdf) showed that post-discharge mortality was highly dependent upon the prescribing of 3 disease-modifying drugs (ACEi/ARB, BB and MRA), with the greatest cumulative benefit seen in those who leave hospital on all 3 key disease modifying drugs. Those discharged on all 3 disease-modifying drugs had a 1-year mortality rate of 18% compared to 52% for those leaving hospital without any of the key drugs. |
|  | SCM1 | **Treating Heart failure with reduced ejection fraction** | Mandating triple therapy (unless contra-indicated) in all patients with HFrEF (this includes ACEi/ARB/ARNI+BB+MRA) | NICOR has demonstrated in the National Heart Failure audit that the uptake of triple therapy in patients with HFrEF is sub-optimal. NICOR report 2020 and NG106 (1.4.1-1.4.18) |
|  | SCM1 | **Treating Heart failure with reduced ejection fraction** | Patients with HFrEF who remain symptomatic despite optimal therapy and whose LVEF is <40% should be considered for a switch of ACEi to Sacubitril-Valsartan. | NG106 (1.4.22) |
|  | SCM1 | **Treating Heart failure with reduced ejection fraction** | Patients with HFrEF who are in sinus rhythm and whose heart rate is >75 bpm despite optimal beta-blockade or who either are unable to tolerate higher doses of beta-blockers or have a contra-indication to beta-blockers should be considered for treatment with ivabradine | NG106 (1.4.19) |
|  | SCM1 | **Treating Heart failure with reduced ejection fraction** | Patients with HFrEF optimally treated with best tolerated triple therapy and who are still symptomatic should be considered for treatment with SGLT2i (either Dapagliflozin or Empagliflozin) | While this was not included in NG106, it appears in two subsequent recommendations by NICE TAC: TA679 (21/02/2021) and TA773 (9/3/2022); which are supposed to be considered alongside NG106.In addition, Dapagliflozin is now recommended in patients with Chronic Kidney Disease TA775 (9/3/2022) and this can be linked to NG106 under 1.5 in those guidelines, particularly 1.5.1 and 1.5.2. |
|  | SCM1 | **Treating Heart failure with reduced ejection fraction** | Patients with HFrEF who are considered for ICD should have regular reviews to assess the continuing need for the defibrillator and to ascertain whether the potential harm may exceed the potential benefit, when deactivation needs to be considered without affecting the pacing or if appropriate the synchronisation functions of the device they have. | NG106 (1.8.3 and 1.8.4) |
|  | SCM1 | **Treating Heart failure with reduced ejection fraction** | \*Dear colleagues, in case my proposal for key area for quality improvement 4 was to be rejected on the basis of the technicality as it was not part of NG106, then I propose as a replacement to add the following:KQI4: Patients with HFrEF who have been started on MRA should have their renal function monthly for three months and then at least every 6 months and when the patient becomes acutely unwell. [Supporting information: This is from NG106(1.4.18)]: Please note there is typo in 1.4.18 it says review treatment when it was mean to have been monitor the renal function. |  |
|  | BACPR | **Treating Heart failure with reduced ejection fraction** | Adults with chronic heart failure and reduced ejection fraction are offered medicines optimisaton clinics to enable rapid titration of guideline developed medical therapy (GDMT) SGLT2, MRA, BB, ARNi/ACEi/ARB.Evidence suggests much of the benefits of GDMT are seen within 30 days of initiating treatment. This includes reduced hospitalisation. |  |
|  | Bayer Plc Ltd | **Treating Heart failure with reduced ejection fraction** | Adults should have a medication review prior to discharge from hospital. Treatment with ACE inhibitor, beta-blocker and MRA should be optimised. Prescription of ACEi, beta-blocker and MRA are key performance indicators for patients with HF as these drugs are associated with better survival, lower hospitalisation rates and better quality of life The National Heart Failure Audit states that all HRrEF patients should be discharged on ACE, BB and MRA. In the 2021 NHFA report the proportion of patients discharged on all three medications in the period 2019/2020 was 49%.Referencehttps://www.hqip.org.uk/resource/national-heart-failure-audit-nhfa-2021-summary-report/#.Yl5kvud7mUk | McMurray, J.J. and Packer, M., 2021. How should we sequence the treatments for heart failure and a reduced ejection fraction? A redefinition of evidence-based medicine. Circulation, 143(9), pp.875-877. |
|  | Boehringer Ingelheim | **Treating Heart failure with reduced ejection fraction** | Inclusion of all 4 pillars of HF medicines should be recognised. Recommend that MRAs & SGLT2i (Empagliflozin & Dapagliflozin) are included into existing statement 3 & 4 as these treatments are recommended as an option for treating symptomatic chronic heart failure with reduced ejection fraction in adults, only if it is used as an add-on to optimised standard care.The minimum standard for review in Quality Statement 3 & 5 should consider strengthening the statement around the review of medication to reinforce the need for recommended dose of SGLT2i or maximum tolerated doses of ACE / ARB / ARNI, BB, MRA, including reviewing for any missing treatments in this list.People with heart failure with reduced ejection fraction may have symptoms that are not controlled well enough despite being on the most appropriate (optimised) standard care. Standard care includes an ACE inhibitor or an ARB, with a beta blocker and, if tolerated, an MRA. Then, if symptoms continue on this, people may be offered sacubitril valsartan with a beta blocker and, if tolerated, an MRA.Evidence from clinical trials shows that empagliflozin and Dapagliflozin plus standard care reduces the risk of dying from cardiovascular causes and hospitalisation for Heart failure compared with placebo plus standard care. It also shows that it reduces the likelihood of hospitalisation for heart failure. The cost-effectiveness estimates for empagliflozin and Dapagliflozin are within what NICE normally considers an acceptable use of NHS resources. So empagliflozin and Dapagliflozin are recommended as treatment options for HF patients. Increased monitoring or changes to other medicines being taken may be needed for treating heart failure with empagliflozin. So, it should only be started on advice from a heart failure specialist.People with heart failure with reduced ejection fraction may have symptoms that are not controlled well enough despite being on the most appropriate (optimised) standard care. Standard care includes an ACE inhibitor or an ARB, with a beta blocker and, if tolerated, an MRA. Then, if symptoms continue on this, people may be offered sacubitril valsartan with a beta blocker and, if tolerated, an MRA | <https://www.nice.org.uk/guidance/ta773/chapter/1-Recommendations> <https://www.nice.org.uk/guidance/TA679> <https://www.nice.org.uk/guidance/ta773/chapter/1-Recommendations> |
|  | British Society for Heart Failure (BSH) | **Treating Heart failure with reduced ejection fraction** | To reduce hospitalisation and mortality related to heart failure, and/or improve quality of life, patients should receive guideline directed therapies including:* 4 pillars of heart failure guideline recommended therapies (ACE/ARNI, B-Blockers, MRAs and SGLT2is) in HF with Reduced Ejection Fraction (HFrEF, LVEF <40%) initiated and gradually increased until the target or optimal tolerated doses are reached.

There are emerging therapies in heart failure with preserved ejection fraction (HFpEF) and associated comorbidities and these should be considered Initiation of specialist therapies by non-medical prescribers competent in heart failure care should be encouraged when supported by the heart failure MDT. * All patients with heart failure and reduced ejection fraction (LVEF≤35%) despite at least 3 months of optimal 4-pillar medical therapy (ACE/ARNI, B-Blockers, MRAs and SGLT2i), should be considered for device therapy. (ICD, CRT-P or CRT-D).

In selected patients with advanced heart failure, referral to a cardiac transplant centre should be considered.There are three major goals of treatment for patients with HFrEF: (i) reduction in mortality, (ii) prevention of first/recurrent hospitalizations due to worsening HF, and (iii) improvement in clinical status, functional capacity, and QOL.Low prescribing rates of MRA’s evidenced in the National Heart Failure audit must be improved. However, this statement also needs substantial change to reflect all changes in therapies to treat HFrEF. We now also have the addition of SGLT2i from the NICE TA appraisal (TA679). The statement should reflect evidence for all four pharmacological HF therapies. Also, the rate of optimisation maximised. This statement potentially conveys a conservative approach to optimisation which would negatively affect morbidity and mortality outcomes. It would be helpful for the statement to include explicit reference to HF specialist nurses and pharmacists who are Non-Medical Prescribers being able to initiate and optimise specialist therapies, thus ensuring improved prescribing rates and associated improved outcomes. NB. There is an urgent need to increase this workforce to meet this standard. | **Please see below supporting documents to evidence improved prescribing of newer HF therapies:** McDonagh TA, Metra M, Adamo M, Gardner RS et al. 2021 ESC guidelines for the diagnosis and treatment of acute and chronic heart failure. Eur Heart J 2021;42:3599–726. <https://doi.org/10.1093/eurheartj/ehab368>Implantable cardioverter defibrillators and cardiac resynchronisation therapy for arrhythmias and heart failureTechnology appraisal guidance [TA314] Published: 25 June 2014https://www.nice.org.uk/guidance/ta314/resources/implantable-cardioverter-defibrillators-and-cardiac-resynchronisation-therapy-for-arrhythmias-and-heart-failure-pdf-82602426443461[NHFA-Domain-Report\_2021\_FINAL.pdf (nicor.org.uk)](https://www.nicor.org.uk/wp-content/uploads/2021/10/NHFA-Domain-Report_2021_FINAL.pdf)[Overview | Dapagliflozin for treating chronic heart failure with reduced ejection fraction | Guidance | NICE](https://www.nice.org.uk/guidance/ta679)John J.V. McMurray and Milton Packer. (2020) A Redefinition of Evidence-Based Medicine.://doi.org/10.1161/CIRCULATIONAHA.120.052926Circulation. 2021;143:875–877Heidenreich P, Bozkurt B, Aguilar D, et al. 2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure. *J Am Coll Cardiol.*null2022, 0 (0) .<https://doi.org/10.1016/j.jacc.2021.12.012>[BSH-Position-Statement-Non-medical-prescribers-final-copy.pdf](https://www.bsh.org.uk/wp-content/uploads/2021/02/BSH-Position-Statement-Non-medical-prescribers-final-copy.pdf)Oyanguren, J., et al. (2020). Noninferiority of heart failure nurse titration versus heart failure cardiologist titration. ETIFIC multicenter randomized trial. Revista Española de Cardiología (English Edition). [online] Available at: <https://www.sciencedirect.com/science/article/pii/S1885585720301869>UK guidelines for referral and assessment of adults forheart transplantationBanner NR, Bonser R, Clark AL, Clark SCowburn PJ, Gardner RS et al. Heart 2011 2011 Sep;97(18):1520-7. |
|  | SCM2 | **Treating Heart failure with reduced ejection fraction** | QS3 Adults with chronic heart failure who have reduced ejection fraction are started on all four pillars of therapies in HFrEF and increased until the target or optimal tolerated doses are reached • Emphasis on emerging therapies in HFpEF and managing comorbiditiesExplicit reference to initiation of specialist therapies by Non-Medical prescribers in HFLow prescribing rates of MRA’s evidenced in the National Heart Failure audit must be improved. However, this statement also needs substantial change to reflect all changes in therapies to treat HFrEF. We now also have the addition of SGLT2i from the NICE TA appraisal (TA679). The statement should change to reflect evidence for all four therapies. Also the rate of optimisation maximised. This statement potentially conveys a conservative approach to optimisation which would negatively affect morbidity and mortality outcomes. It would be helpful for the statement to include explicit reference in recommendations to increase the HF specialist nurse workforce to meet increasing prevalence and therapies to treat. The standard should also address HF specialist nurses and Pharmacists who are Non-Medical Prescribers being able to initiate and optimise specialist therapies. Thus ensuring improved prescribing rates and associated improved outcomes. | Please see below supporting documents to evidence improved prescribing of newer HF therapies:[NHFA-Domain-Report\_2021\_FINAL.pdf (nicor.org.uk)](https://www.nicor.org.uk/wp-content/uploads/2021/10/NHFA-Domain-Report_2021_FINAL.pdf)[Overview | Dapagliflozin for treating chronic heart failure with reduced ejection fraction | Guidance | NICE](https://www.nice.org.uk/guidance/ta679)How Should We Sequence the Treatments for Heart Failure and a Reduced Ejection Fraction?John J.V. McMurray and Milton Packer. (2020)A Redefinition of Evidence-Based Medicine.://doi.org/10.1161/CIRCULATIONAHA.120.052926Circulation. 2021;143:875–877McDonagh TA, Metra M, Adamo M et al. 2021 ESC guidelines for the diagnosis and treatment of acute and chronic heart failure. Eur Heart J 2021;42:3599–726. <https://doi.org/10.1093/eurheartj/ehab368>Heidenreich P, Bozkurt B, Aguilar D, et al. 2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure. *J Am Coll Cardiol.*null2022, 0 (0) .<https://doi.org/10.1016/j.jacc.2021.12.012>[BSH-Position-Statement-Non-medical-prescribers-final-copy.pdf](https://www.bsh.org.uk/wp-content/uploads/2021/02/BSH-Position-Statement-Non-medical-prescribers-final-copy.pdf)Oyanguren, J., et al. (2020). Noninferiority of heart failure nurse titration versus heart failure cardiologist titration. ETIFIC multicenter randomized trial. Revista Española de Cardiología (English Edition). [online] Available at: https://www.sciencedirect.com/science/article/pii/S1885585720301869 |
|  | Vifor Pharma UK | **Treating Heart failure with reduced ejection fraction** | The proportion of patients being prescribed MRA at discharge is improving but it was still only 56% in 2019/20 (NHFA 2021) A recent audit of 78 UK GP practices identified missed cohorts of patients with HF and LVSD, enabling the optimization of prognostic medication and an increase in device prescription. In total, 19,393 patients’ (HF w/ LVSD) medical records were audited of which 662 required a specialist review. Of these patients only 19.9% were initiated or optimised on MRA therapy. [Kahn et al, 2021, European Heart Journal, Volume 43, Issue 5, 1 February 2022, Pages 405–412] | NICE NG106 update on 2018 included a recommendation to add MRA as standard-of-care therapy for patients with HFrEF on ACEi and beta-blocker who remain symptomaticQOF HF indicator 007 (based on NM174) The percentage of patients with a diagnosis of heart failure on the register, who have had a review in the preceding 12 months, including an assessment of functional capacity and a review of medication to ensure medicines optimisation at **maximal tolerated doses**.<https://www.england.nhs.uk/wp-content/uploads/2020/09/C0713-202021-General-Medical-Services-GMS-contract-Quality-and-Outcomes-Framework-QOF-Guidance.pdf> Pages 21/22 |
|  | Vifor Pharma UK | **Treating Heart failure with reduced ejection fraction** | The National HF Audit (NHFA) 2021 found that only 49% of patients are discharged on all three disease-modifying drugs (ACEi, beta-blocker and MRA), and not much improvement has been observed in the last 6 years in this metric. | The ESC 2021 guidelines recommend four pillars of HF management- ACE-I/ARNI; Beta-blocker; MRA; Dapagliflozin/Empagliflozin - in patients with HFrEF to reduce mortality and HF hospitalisation (class I recommendation) |
|  | NHSE | **Treating Heart failure with reduced ejection fraction** | HFrEF optimised with quadruple therapy – ACEi/ARB, BB, MRA, SGLT2iHFpEF – BP optimised, albuminuric patients optimisedPatients are often not optimised leading to preventable disease progressionTOPCAT |  |
|  | Novartis Pharmaceuticals UK Ltd | **Treating Heart failure with reduced ejection fraction** | Prescribing: Inclusion of ARNI (angiotensin receptor-neprilysin inhibitors) in the Four Pillar treatment paradigm for adults with chronic heart failure with reduced ejection fraction.The Quality Standard Statement 3 “*Adults with chronic heart failure who have reduced ejection fraction are started on low-dose angiotensin-converting enzyme (ACE) inhibitor and beta-blocker medications that are gradually increased until the target or optimal tolerated doses are reached. [2011, updated 2016]”* does not reflect more recent advances in best practice treatment options for adults with chronic heart failure who have reduced ejection fraction. We recommend that the Quality Statement is updated to specifically include the initiation (where appropriate) of ARNI\* (angiotensin receptor-neprilysin inhibitors) alongside beta-blocker (BB), mineralocorticoid receptor antagonist (MRA) and sodium-glucose co-transporter 2 inhibitors (SGLT2i) medications. \*ACEi or ARB may be used as an alternative if ARNI is not suitable/appropriate. Doing so would bring the Quality Statement in line with the available evidence, as set out below.The [[CaReMe 2021 HF Algorithm](https://www.britishcardiovascularsociety.org/resources/careme),](https://www.britishcardiovascularsociety.org/resources/careme) is guidance from the British Cardiovascular Society, Renal Association and Association of British Clinical Diabetologists which has been modified from the NICE guideline for Chronic Heart Failure, recommends ARNI as first line treatment for patients with ejection fraction <35%. The [2021 ESC Guidelines](https://academic.oup.com/eurheartj/article/42/36/3599/6358045?login=true) recommend ARNI as first line treatment for HF patients, as a replacement for ACEi. The [AHA/ACC/HFSA 2022 Guideline](https://www.ahajournals.org/doi/epdf/10.1161/CIR.0000000000001063) for the Management of Heart Failure recommends ARNI first line for NYHA class II -III patients.The PARADIGM-HF trial by McMurray JJV, Packer M, Desai AS, et al. 2014 showed that a combination of angiotensin receptor blocker and a neprilysin inhibitor- ARNI (sacubitril-valsartan) was superior to an ACEi (Enalapril) in preventing cardiovascular deaths or hospitalisation for heart failure and reducing all-cause mortality. Recent trials have also demonstrated improved outcomes in people with HFrEF receiving SGLT2i. | The [AHA/ACC/HFSA 2022 Guideline](https://www.ahajournals.org/doi/epdf/10.1161/CIR.0000000000001063) for the Management of Heart Failure recommends ARNI first line for NYHA class II-III patients. This is aligned with a viewpoint published by Straw S, McGinlay M, Witte KK. 2021. They propose a framework for the implementation of pharmacological therapies in HFrEF, in which the Four Pillars of Heart Failure are introduced in parallel, very early in the patient pathway with subsequent optimisation of dosing where required. **Figure 1** Initiation and optimisation of the Four Pillars of Heart Failure therapy. All agents are initiated in parallel. This is followed by up-titration in one, two or three steps, as required. Additional therapies are then considered as a final step. In a cross-trial analysis, Vaduganathan M, Claggett BL, Jhund PS, et al. 2020, estimated that a typical patient aged 65 years can expect to live an additional 4 years if receiving a comprehensive ‘Four Pillar’ treatment strategy (ARNI, Beta Blocker, MRA, and SGLT2i) versus conventional therapy (ACEi/ARB and Beta Blocker) in patients with chronic HFrEF. |
|  | SCM5 | **Treating Heart failure with reduced ejection fraction** | We know that use of all 4 pillars of medical therapy lead to significant improvement in event free survival. We also know that we are not doing well nationally at getting patients on all 4 pillars – particularly regarding low rates of MRA prescribing. We also know that these therapies have an early onset of action, so that the sooner patients are initiated on these medicines, and uptitrated to maximally tolerated doses, the increased likelihood of a. better outcome. Therefore it is logical that there should be a target timeframe for us to achieve this within. Some groups are recommending a 4 week period, but 3-6 months seems more sensible and achievable, and measurable. In so doing it would be helpful to explicitly highlight that there would need to be an uplift in HF nurse specialists in order to achieve this goal. | Vaduganathan M et al. Lancet. 2020 Jul 11;396(10244):121-128. doi: 10.1016/S0140-6736(20)30748-0. Epub 2020 May 21. PMID: 32446323.<https://www.nicor.org.uk/wp-content/uploads/2021/10/NHFA-Domain-Report_2021_FINAL.pdf>Berg JAMA Cardiol 2021; 6(5): 499-507M Packer Circulation 2021; 143: 326-336A Sharma et al. Optimizing Foundational Therapies in Patients With HFrEF: How Do We Translate These Findings Into Clinical Care? JACC basic to translational science 2022. <https://doi.org/10.1016/j.jacbts.2021.10.018>BSH-Position-Statement-Non-medical-prescribers-final-copy.pdfOyanguren, J., et al. (2020). Noninferiority of heart failure nurse titration versus heart failure cardiologist titration. ETIFIC multicenter randomized trial. Revista Española de Cardiología (English Edition). <https://www.sciencedirect.com/science/article/pii/S1885585720301869> |
|  | SCM6 | **Treating Heart failure with reduced ejection fraction** | Optimising heart failure medicines with the four disease modifying drugs that reduce mortality - and better shared decision making and planning.“Fewer than 50% of patients with systolic dysfunction are discharged on the three key disease modifying drugs that reduce mortality.” | As aboveSee also NICE HF guidelines 2018 - importance of providing patients with clear plans |
|  | SCM6 | **Treating Heart failure with reduced ejection fraction** | Tackle health inequalities in managing HF - especially among the elderly“There is a disparity in the care of the elderly compared to younger individuals. With increasing age the audit shows that fewer receive an echo, the gold standard diagnostic test, and a gradual decline in those leaving hospital on all three key disease modifying drugs, fewer are seen by specialists and fewer are admitted to cardiology wards.”“Tailored management strategies and specialist care for patients with heart failure are needed to address persisting and increasing inequalities for men, the most deprived, and for those who are diagnosed with heart failure in hospital, and to address the worrying trends in women.” | As aboveAlso see this paper:20-year trends in cause-specific heart failure outcomes by sex, socioeconomic status, and place of diagnosis: a population-based study.[https://doi.org/10.1016/S2468-2667(19)30108-2](https://doi.org/10.1016/S2468-2667%2819%2930108-2) |
|  | Boehringer Ingelheim | **Treating Heart failure with preserved ejection fraction** | People who have heart failure with preserved ejection fraction should usually be offered a low to medium dose of loop diuretics (for example, less than 80 mg furosemide per day). Current guidance on HFPEF management is limited within the current NICE quality standard and guidelines. We believe that a specific quality standard for this group of patients would lead to improvement in patient care. |  |
|  | SCM3 | **Treating Heart failure with preserved ejection fraction** | Heart failure with preserved ejection fraction diagnosis and management.Quality Standards have not included HFpEF but the NICE Chronic Heart Failure guideline 2018 mentions HFpEF in diagnosis and trial of diuretic therapy in the recommendations. We could consider adding a Quality Standard on HFpEF as currently poorly recorded and managed. | Paper on HFpEF diagnosis in primary care: <https://onlinelibrary.wiley.com/doi/10.1002/ehf2.13612> |
|  | Boehringer Ingelheim | **Additional areas** | Local evidence of high-resolution equipment by experienced operators trained to deliver transthoracic echocardiography should be performed on high-resolution with sufficient capacity to image within the timelines indicated in the NICE guidelines – 2 weeks or 6 weeks. These may take place in secondary care or in a diagnostic hub as outlined in NHSE Diagnostics: Recovery and Renewal report.Transthoracic echocardiography should be performed on high-resolution equipment by experienced operators trained to the relevant professional standards. Need and demand for these studies should not compromise quality. | <https://www.nice.org.uk/guidance/ng106> section 1.29 Richards M, (2020) Diagnostics: Recovery and Renewal, October 2020 <https://www.england.nhs.uk/wp-content/> uploads/2020/10/BM2025Pu-item-5-diagnostics-recovery-andrenewal.pdf |
|  | SCM3 | **Additional areas** | Palliative care provision for people living with heart failure.Access to palliative care when appropriate is in the NICE Chronic Heart Failure 2018 update. |  |
|  | Vifor Pharma UK | **Additional areas** | Patients with HF have their iron deficiency diagnosed and managed to improve symptoms and reduce hospitalisations.1. There is limited published data of iron deficiency testing in patients with HFrEF in the UK. Two examples below:
2. - An audit conducted in patients admitted to hospital at the Frimley Health NHS Foundation Trust in 2017 found that out of 218 patients with heart failure only 87 (39.9%) had iron studies performed and that 75.5% of those patients found to have iron deficiency were left without iron replacement therapy. *[Simon S, Ioannou A, Deoraj S, et alAudit of the prevalence and investigation of iron deficiency anaemia in patients with heart failure in hospital practicePostgraduate Medical Journal 2020;96:206-211.]*

- An audit conducted at Leeds Teaching Hospital Trust in 2018 showed that only 18.5% of patients admitted within a one year period had a ferritin test and only 24% of patients diagnosed anaemic received a further ferritin test. *[Khatib R and Winsor S. 2018. Prevalence of iron studies during admission of heart failure patients to Leeds Teaching Hospitals. Poster presentation at the ESC Heart Failure Congress and published in European Journal of Heart Failure Supplements 20(Suppl S.1):237.]* | The ESC 2021 guidelines recommend that all patients with HF be periodically screened for iron deficiency.The ESC 2021 guidelines recommend management of iron deficiency pre-discharge and early post-discharge in patients hospitalised for acute heart failure and with LVEF<50% and iron deficiency to reduce the risk of HF re-hospitalisations.The ESC 2021 guidelines recommend management of iron deficiency in patients with LVEF<45% and iron deficiency to alleviate HF symptoms, improve exercise capacity and quality of life. |
|  | NHSE | **Additional Areas** | Code cleansing in primary care to ensure all patients with HF are appropriately coded and on a disease registerPatients who are not coded are often lost to follow-up. | Work by Oxford AHSN in Bucks has shown circa 15% under-coding in HF |