

Heart Failure Quality Improvement Metrics

1 Selected quality improvement metrics

1.1 Rates of echocardiography

1.1.1 Overview of QI metric

QI Metric Description/Name	Use of echocardiography for assessment and diagnosis.
Why is this important?	<p>Attempting a diagnosis of HF on clinical symptoms and signs alone results in an incorrect diagnosis in 50%.</p> <p>An accurate diagnosis requires non-invasive imaging (most commonly echocardiography) to confirm underlying cardiac dysfunction. This also allows the underlying HF phenotype, which determines the treatment, to be assigned.</p>
QI theme	Effectiveness, safety.
What is the standard to be met?	<p>There is no accepted national standard. The NICE acute HF guideline recommends an early in-patient echocardiogram, ideally within 48 hrs of admission for all new presentations of acute HF.</p> <p>Accepting that some patients may have had a recent echocardiogram, the NHFA standard is for at least 90% of patients to have undergone echocardiography.</p>
Key references to support the metric	NICE Clinical guideline [CG187]. Acute heart failure: diagnosis and management.
Numerator	Number of patients with an index admission with acute HF with an echocardiogram.
Denominator	Number of patients with an admission with acute HF.



1.2 Place of Care

1.2.1 Overview of QI Metric

QI Metric Description/Name	Place of care
Why is this important?	Place of care is a key QI for HF as care in cardiology wards is associated with lower in-hospital and subsequent mortality, better treatment for patients with HFrEF on discharge, and more access to specialist care.
QI theme	Effectiveness, safety.
What is the standard to be met?	There is no official standard. The NHFA has recommended improved access to cardiology wards as it is associated with better outcomes. HF patients are among those at highest risk without this access. The NHFA minimum target is access to cardiology ward for 60% of patients admitted with acute heart failure, in any given hospital.
Key references to support the metric	NICE Clinical guideline [CG 187]. Acute heart failure: diagnosis and management.
Numerator	All patients admitted with acute HF admitted to a cardiology ward.
Denominator	All patients admitted with acute HF.



1.3 Specialist multidisciplinary care

1.3.1 Overview of QI Metric

QI Metric Description/Name	Access to specialist HF care
Why is this important?	Access to specialist HF care (by cardiologists and specialist HF nurses) is associated with lower in-hospital and out-of-hospital mortality, and better treatment of patients with HFrEF on discharge.
QI theme	Effectiveness, safety.
What is the standard to be met?	<p>The audit standard is that at least 80% of patients admitted with acute heart failure should be seen by a member of the specialist HF team.</p> <p>Teams looking after HF patients on non-cardiology wards should be encouraged to refer to the HF team and the HF team need actively to seek out these patients.</p>
Key references to support the metric	NICE Clinical guideline [CG 187]. Acute heart failure: diagnosis and management.
Numerator	All patients admitted with acute HF who are seen by a member of the HF team.
Denominator	All patients admitted with acute heart failure.



1.4 Best practice drug therapy treatment at discharge for HFrEF

1.4.1 Overview of QI metric

QI Metric Description/Name	Best practice treatment at discharge.
Why is this important?	<p>Prescription of ACEI/ARB/ARNI, beta-blocker and MRA are key performance indicators for patients with HFrEF as these drugs are associated with better survival, lower hospitalisation rates and improved quality of life.</p> <p>The SGLT2 inhibitors, dapagliflozin or empagliflozin, are also now recommended as an additional (4th disease-modifying drug) for those with HFrEF.</p>
QI theme	Effectiveness.
What is the standard to be met?	<p>All patients with HFrEF should be prescribed an ACEI/ARB/ARNI, and beta blocker and MRA unless contra-indicated.</p> <p>QI target for the prescription of ACEI/ARB/ARNI, BB, MRA, is at $\geq 90\%$. The combination of these three drugs is also set at 90%.</p> <p>The target for the SGLT2 inhibitors, dapagliflozin or empagliflozin, in combination with ACEI/ARB/ARNI beta-blocker and MRA is also 90%, for eligible patients.</p>
Key references to support the metric	<p>NICE guideline [NG 106]. Chronic heart failure: diagnosis and management.</p> <p>NICE Clinical guideline [CG 187]. Acute heart failure: diagnosis and management.</p>



	<p>ESC 2021 Heart Failure Guideline.</p> <p>NICE Technology Appraisal TA679 2021 https://www.nice.org.uk/guidance/ta679</p> <p>NICE Technology Appraisal TA773 2022 https://www.nice.org.uk/guidance/ta773</p>
Numerator	All patients with HFrEF prescribed each of these drug classes unless there is a contraindication.
Denominator	<p>1. All patients with HFrEF with a Yes/No answer.</p> <p>2. All patients with HFrEF</p>

1.5 Follow up appointment within two weeks of discharge.

1.5.1 Overview of QI metric

QI Metric Description/Name	Follow-up appointment within two weeks of discharge.	Specialist follow-up alongside access to cardiac rehabilitation.
Why is this important?	<p>People admitted to hospital due to HF should be discharged only when stable and should receive a clinical assessment from a member of a multidisciplinary HF team within 2 weeks of discharge (NICE Quality standard 103).</p> <p>This is a 'high-risk' period when the patient</p>	<p>Specialist cardiology and HF nurse follow-up improves morbidity and mortality in HF and reduces likelihood of early readmission.</p> <p>Cardiac rehabilitation is also associated with better outcomes.</p>



	is at increased risk of hospital readmission.	
QI theme	Effectiveness.	Effectiveness.
What is the standard to be met?	The standard should be 100%.	100% of stable patients fit for discharge should ideally leave hospital knowing when, where and by which member of the specialist HF team they will be reviewed within two weeks. They should also be referred to cardiac rehabilitation.
Key references to support the metric	NICE Quality standard [QS 103]. Acute heart failure.	NICE guideline [NG106] 2018. Chronic heart failure in adults: diagnosis and management 2018.
Numerator	All patients discharged alive after an admission with acute heart failure with evidence of a follow-up appointment within 2 weeks.	All patients discharged alive after an admission with acute heart failure with specialist. cardiology/nurse follow-up to be seen within 2 weeks.
Denominator	All patients discharged alive after admission with acute heart failure.	All patients discharged alive after admission with acute heart failure.

1. References

1. [NICE guideline \[NG 106\]. Chronic heart failure in adults: diagnosis and management.](https://www.nice.org.uk/guidance/ng106)
2. [NICE Clinical guideline \[CG187\]. Acute heart failure: diagnosis and management.](https://www.nice.org.uk/guidance/cg187)



3. McDonagh TA, Metra M, Adamo M, Gardner RS et al. Eur Heart J. 2021 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure. Eur Heart J 2021 Sep 21;42(36):3599-3726. doi: 10.1093/eurheartj/ehab368.
4. [Nice Quality standard \[QS103\]. Acute heart failure.](https://www.nice.org.uk/guidance/qs103)
5. [NICE Quality standard \[QS9\]. Chronic heart failure in adults.](https://www.nice.org.uk/guidance/qs9)
6. NICE Technology Appraisal guidance. TA679 2021. Dapagliflozin for treating CHF with HFrEF. <https://www.nice.org.uk/guidance/ta679>
7. NICE Technology Appraisal TA773 2022. Empagliflozin for treating CHF with HFrEF. <https://www.nice.org.uk/guidance/ta773>

