Enhancing the Quality of Heart Failure Care
Heart failure in the UK: Case for change

Heart failure represents a major growing cost to the NHS and wider society.

There are considerable variations in access to specialist care and outcomes for heart failure patients vary across the country. For example:

- Patients not treated on a cardiology ward are 54% more likely to die in hospital and 14% more likely to die following discharge.\(^\text{10}\)
- A fifth of patients receive no specialist input to their care upon hospital admission.\(^\text{10}\) These patients are almost twice as likely to die in hospital compared to those who are seen by a specialist cardiologist or heart failure specialist nurse.\(^\text{10}\)

There are a number of areas where there are opportunities to improve care for people living with heart failure.

The Kent Surrey Sussex Academic Health Science Network (KSS AHSN) Heart Failure project is a clinically led and data driven quality improvement programme. It aims to tackle variation in care for heart failure patients, improve outcomes and provide a strong platform to discuss and ultimately make key recommendations to providers and commissioners.

Facts

- Heart failure is the leading cause of hospital admission in over 65s\(^\text{4}\)
- Heart failure accounts for almost 2% of the entire NHS budget, equating to £2.3bn every year\(^\text{5,6}\)
- It is one of the five long term conditions responsible for 75% of unplanned hospital admissions\(^\text{7}\)
- 5 year survival rate for heart failure is worse than breast or prostate cancer\(^\text{1}\)
- Projections indicate that hospital admissions for heart failure are set to rise by 50% in the next 25 years due to an ageing population\(^\text{8}\)

Heart failure affects 550,000 people in the UK\(^\text{2}\), with many more undiagnosed\(^\text{3}\)
Heart Failure pathway map

The KSS AHSN Heart Failure project was established in 2010. It aligns the National Institute for Health and Care Excellence (NICE) Quality Standards and the National Best Practice Tariff (BPT) to benchmarked process measures through monthly reporting of the National Heart Failure Audit (NHFA) dataset. The Pathway is built around coordinated integrated systems for improvement and the focus is always on the person - not the system.

**STANDARDS**
- **Community Pathway:**
  - CHFSt 2. Diagnosis-high risk (MI or ^NP): seen within 2 weeks of referral.
  - CHFSt 1. Diagnosis: echocardiogram and specialist assessment.
  - CHFSt 3. LVSD ACEi(ARB)/BB: to optimal tolerated/target dose.
  - QS9CHFSt 6. Multidisciplinary heart failure team.
  - CHFSt 4. Review (after any medication change): 2 weeks
  - CHFSt 5. Review (routinely): 6 monthly.

- **Acute Pathway**
  - AHFSt 2. Diagnosis NP: at admission.
  - AHFSt 3. Care: dedicated specialist heart failure team.
  - AHFSt 4. RxLVSD BB: (unless HR<50/AVB/shock) or restart pre-discharge
  - QS9CHFSt 6. Multidisciplinary heart failure team.
  - AHFSt 6. Follow-up: by team within 2 weeks

**QPSC MEASURES**
- **Community Pathway:**
  - QPSCComm 1. Rx LVSD: ACEi/BB at target.
  - QPSCComm 2. Review: within 2 weeks of referral receipt.

- **Acute Pathway:**
  - QPSCAcute 1. Diagnosis Echo.
  - QPSCAcute 2. Care: specialist Input.
  - QPSCAcute 3. RxLVSD ACEi(ARB): at discharge.
  - QPSCAcute 4. RxLVSD BB: at discharge.
  - QPSCAcute 5. Discharge: Management Plan
  - QPSCAcute 6. RxLVSD : Specialist Nurse Follow Up

**STATEMENT SOURCES**
- **Community Pathway:**
  - CHFSt: Statements from Quality Standards for CHF: 2016
  - QS9CHFSt: Statements from Quality Standards (QS9) for CHF: 2010

- **Acute Pathway:**
  - AHFSt: Statements from Quality Standards for AHF: 2015
  - QS9CHFSt: Statements from Quality Standards (QS9) for CHF: 2010

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The impact of the Enhancing Quality methodology

The process measures

QPSC uses proven improvement science, large scale change methodology and shared learning to drive rapid implementation of best practice, leading to a reduction in inappropriate variation and improvement in patient outcomes.

In 2015 the EQ programme aligned with the National Heart Failure Audit (NHFA) data collection to support greater compliance with NICE Heart Failure guidelines and quality standards.

The uptake of the QPSC care bundle has included 9 KSS provider Trusts who achieved an Appropriate Care Score (ACS) of 63% in Q1 up to 76% in Q4, (averaging 71% over the first year). The ACS gives an indication of the amount of bundle interventions a patient could have received with 100% being all.

A process measure gives a good indication as to the success of the implementation of the care pathway, it does not however consider the outcomes of the pathways.

Best Practice Tariff

In 2016/17 - Designed to incentivise improved adherence to NICE guidance, a new mandatory BPT for non-elective admissions for heart failure was introduced.

Heart Failure – 2016/17

- Data submission to the NHFA with a target rate of 70%
- Specialist input with a target rate of 60%

The QPSC dashboards deliver a quarterly trend to track for each Trust whether the BPT will be achieved.
Measuring outcomes where the care bundle has been adopted

Early positive results

The top 3 trusts to apply the QPSC care bundle within the KSS region managed to reduce admissions by a combined 190 patients few than baseline forecasts, which would account to a non-cash releasing saving in the region of just over half a million pounds based on the average cost of heart failure admissions in those specific hospitals.

Measuring outcomes is a challenge to undertake reliably due to coding inconsistencies.

Localised aggregated data is used to provide correlational results as outcomes cannot be tracked at patient level. Aggregated data is however a useful proxy measure in being able to show a relationship to the process measures.

To ensure effective change monitoring much care is also taken to ensure the base-lining is applied accurately based on 3 year historic averages and trends, as well as being localised to each trust.

The top performing Trusts LOS reduced by just over half a day equating to potential spare capacity of 452 bed days.

The three Trusts that saw the biggest improvements in mortality saved proportionally 35 more lives combined against baseline.

The prevalence of heart failure continues to grow nationally of the rate of between 3-6% per year. This appears to be echoed within the KSS region, evidenced by the increase in heart failure admissions. Consequently it is likely that care bundles have slowed the rate of increase expected and although the base-lining takes this into account, it is probably not introducing it as quickly as the increase is taking place in reality.
Acute care bundle

Specialist input

QPSC / NHFA measure
Record the heart failure specialist clinicians that had input into the patient’s care.
(Multiple values can be selected. *unknown cannot be selected in combination)
Best Practice Tariff - Heart Failure - 2016/17
- Specialist input with a target rate of 60%

ACE / ARB on discharge

QPSC / NHFA measure
All patients with Left Ventricular Systolic Dysfunction (LVSD) should be on an ACE (or ARB) and a Beta-Blocker (licensed for Heart Failure) within the target dose range for heart failure.
ARBs should only be used in the situation where patients have intolerable adverse effects with ACE inhibitors.

Beta blocker on discharge

Record:
- The ACE inhibitor (or ARB) and Beta-blocker that the patient was prescribed at point of discharge.
Echocardiography (during admission or in last 12 months)

QPSC / NHFA measure

Record Echo findings (or other gold standard test, including MRI, Nuclear scan, Angiogram and CT scan)

- Echo findings recorded during admission or within the last 12 months. (Multiple options may be selected)

Heart Failure Management Plan

QPSC / NHFA measure

The personalised plan should include:

- Plan to be discussed with patient & carers, to include: lifestyle, medicines, weight management, monitoring signs and symptoms, disease prognosis and palliative care if appropriate.
- Plan to Primary Care to include up-titration, continuation of medicines and on-going care outside of hospital.
- Take into account patient & carer wishes, and the level of care and support that can be provided in the community.

Referral to Heart Failure Specialist Nurse Follow Up

QPSC / NHFA measure

Referred for follow-up with a heart failure specialist nurse (HFSN) - this could be at a hospital, home visit or community-based clinic.

- Select yes, if a referral has been made to HFSN for follow up at time of discharge and it is documented in notes.
- Select no if the patient will, or is likely to be referred to a heart failure nurse service following discharge.
Community Measures

Management

QPSC measure
All patients with Left Ventricular Systolic Dysfunction (LVSD) should be on an ACE (or ARB) and a Beta-Blocker (licensed for Heart Failure) within the target dose range for heart failure.

An average 50% dose against target doses accepted in this measure, measuring the average dose v % reaching maximum dose is to maximise improvement outcomes.

On EQ spread sheet - Record drug name and dose at initial assessment and update monthly.

Clinical assessment within 2 weeks

QPSC measure
All patients referred to the Community Heart Failure Service (CHFS) should receive a clinical assessment from a member of the multidisciplinary heart failure team within 2 weeks of referral.

- All patients referred and accepted to the CHFS caseload should be seen within 2 weeks of the referral being received.
Acute

1. Main place of care
   The ward in which the patient received the majority of their care.

2. Was a review appointment with the specialist MDT HF team made and a date given to the patient on discharge? Only tick yes if the date is known.

3. Referral to Heart Failure Nurse Specialist follow up? (Non-LVSD population)
   This should record a referral has been made in the notes at point of discharge.

4. Aldosterone Antagonist (MRA) on discharge
   Treating Heart Failure due to LVSD: for second-line treatment consider adding an aldosterone antagonist.

Community

1. Breathlessness
   This is a standard breathlessness score used to assign New York Heart Association Classification on 1st Clinical assessment.
   NYHA 1, 11, 111, 1V.

2. Oedema
   This is an assessment of the level of peripheral oedema present at 1st clinical assessment.

3. Echo assessment
   Results of echocardiography, or other gold standard test (including MRI, nuclear scan, angiogram and CT scan) (Multiple options may be selected).

5. Ivabradine
   Ivabradine should be initiated only by a heart failure specialist after 4 weeks of stable optimal standard therapy: monitoring and dose titration should be carried out by a member of the specialist heart failure MDT.

7. Anticoagulants
   The anticoagulants section will be reported on for all patients who are indicated to have atrial fibrillation (AF) in the long term conditions section.

8. Entresto
   Sacubitril valsartan (Entresto) 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 angiotensin II receptor-blockers (ARBs).
The acute and community dashboard reports
Work with us

We know the QPSC Heart Failure Project has made a difference to our population in the Acute and Community Trusts across Kent, Surrey and Sussex, but there is more to do and support is needed to share our learning and move the project out of region.

Building on firm foundations and experience of the past seven years, this project is ready to scale. KSS AHSN has set out a plan to spread this innovation through collaborative working and delivery of the monthly dashboard reports, giving Acute and Community Services a robust tool to demonstrate how the services they deliver improve quality, reduce variation, place patients at the centre of change and deliver value for money.

The set up process

- Data sharing agreement established.
- 3 x training sessions delivered to the hospital or community team.
- Guidance and data tools package provided.
- QPSC acute reports are run four months later, so hospitals can validate against their HES data.
- Hospital inputs data to NHFA database monthly.
- Hospital extracts data from NHFA and submits monthly to QPSC in line with QPSC timelines.
- Community teams input data to a spreadsheet and submit monthly to QPSC.
- Dashboard reports delivered monthly.
- On-going QPSC Informatics team support.
- On-going QPSC Cardiovascular lead support.

Catalogue of services

In addition to delivering monthly dashboard reports, the QPSC Heart Failure Project offers:

- Support and guidance in using meaningful data in business plans
- Support visits to clinical teams with a report and collaborative action plan.
- Facilitates peer to peer support visits across services
- Hosts bi-annual collaborative learning events to bring together acute and community heart failure clinicians and patients to enable a transparent discussion around areas of variation and to learn how we can pick up and share best practice to make a marked improvement in outcomes and care for patients.
- Quality Improvement training – using tools including driver diagrams and process mapping to create a culture of sharing best practice across the region.
- Quality kite marks
- CQC reports
- Literature reviews
- Audit and informatics / analysts support.

Get in touch with KSS AHSN on 0300 303 8660 to talk about how we can support your work.
Get in touch

Enhancing the quality of care for people with Heart Failure

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