Hampshire & Isle of Wight (HIOW) ICB Heart Failure Transformation Project Report

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1. Overview

1. UK Context

Heart Failure (HF) is a complex clinical syndrome where people experience signs and symptoms of the disease due to the impaired pump function of the heart. It is caused by the structural and/or functional abnormalities of the heart. It represents a challenge to healthcare systems due to several factors:

- Pre-existing heart disease (particularly ischaemic heart disease) is the most common risk factor and patients, therefore, often have historic contacts with different cardiology services, which can lead to confusion regarding appropriate referral pathways.
- Comorbidity, particularly with prevalent long-term conditions such as diabetes mellitus and hypertension, is very common, and optimal treatment strategies / medicines optimisation can be challenging when multiple services are involved.
- Cardiac comorbidity often complicates the syndrome and may require review by other cardiology sub-specialists – particularly those specialising in cardiac rhythm management or valve disease. This causes similar confusion relating to both referral from and back to primary care.
- There is a high burden of frailty within the population living with heart failure. This can delay diagnosis and requires complex, multidisciplinary and multi-agency working to facilitate appropriate shared decision-making regarding goals of management.
- Different disease states share common aetiologies and present with identical symptoms, signs and blood results but require different approaches to long-term management. This is principally reliant on the determination of the left ventricular ejection fraction (LVEF) by echocardiography. Making an accurate diagnosis and an appropriate management plan requires a synthesis of information from both clinical factors and results of complex investigations requiring specialist interpretation. This requires a high degree of integration across the system to ensure that appropriate information is shared rapidly between primary care and specialist services.
- Decompensation / worsening of disease is common and is often associated with other acute medical issues requiring combined management of both issues with appropriate timely follow-up. This requires collaborative working and appropriate early follow-up mechanisms.

Approximately 1,000,000 people in the UK are diagnosed with HF with around 200,000[1] new diagnoses being made annually. Although not a disease exclusively of the elderly, the incidence and prevalence of HF increases steeply with age, with the average age at diagnosis being 77 years old. In addition, it is well recognised that we currently significantly under-diagnose this condition and despite advances in medical therapies, mortality remains high, worse than many cancers[1], with a 50% 5-year survival.

At a system level, HF is the leading cause of hospital admission in over 65yrs[1] and is one of the five long term conditions responsible for 75% of unplanned hospital admissions[1]. People living with HF require significant input from NHS services and their care currently accounts for 862,470 hospital bed days per year[1], 2% of the total NHS budget[1] and 5% of all emergency hospital admissions in the UK[1].

The prevalence of HF is rising due to population ageing, increased survival rates in patients with cardiovascular disease (CVD) and increasing rates of co-morbidities including obesity, Type 2 Diabetes (T2D), and hypertension. Projections indicate that the incidence of HF is set to rise by 92% by 2040[2] and that hospital admissions for HF will increase by 50% in the next 25 years[1].

National guidance from both NICE and NICOR advocates the provision of a specialist Heart Failure Service and evidence nationally shows that this is effective in improving quality of life, reducing non-elective hospital admissions, and achieving cost savings. Such services have been established in HIoW ICS and operate different models according to varying levels of integration with primary, community and secondary care. Local experience is that such services are overwhelmed and that no review of commissioning or service delivery has been undertaken across large parts of the system since 2016. Recommended pathways of care have transformed over the last 5 years, with novel disease modifying therapies having been approved for management of all patients with HF, and a paradigm shift in the approach to the management of HF with reduced ejection fraction.

1.1 Local Context:

Hampshire and the Isle of Wight Integrated Care System (HIOW ICS) has a population of 1,961,000 and covers a mixed urban–rural geography spanning the cities of Southampton and Portsmouth, large towns across Hampshire, and the Isle of Wight. The population profile skews older than the England average, with marked local variation in deprivation: urban areas (notably parts of Southampton, Portsmouth and the Isle of Wight) show higher deprivation, while many Hampshire localities are relatively affluent. Ethnic diversity is greater in the two cities, with the wider area predominantly White British. HF burden and outcomes reflect this demography.

Based on ATLAS (UK Heart Failure report; data drawn from QOF prevalence, HES Admitted Patient Care, ONS mortality and BSA prescribing), HIOW records substantial HF service use. In the latest 12-month period:

- Total admissions where HF was either primary or secondary reason were 30,290, however only 25,487 patients had a primary care code for HF.

- 65% of patients on the HF register received a review in the previous 12 months vs 83% nationally.
- Admissions with HF coded as primary cause had an admission rate of 161.85 per 1,000 patients on the HF register.
- 82.06% were seen as emergency admissions.
- Total HF admission costs were £21.60 million.
- Average cost per stay of £5.24k.
- Average length of stay of 10.65 days.
- Emergency readmissions for HF were 4.85% *(within 30 days)* and 8.85% *(within 90 days)*.
- Access to SGLT2, as part of recommended Guideline Directed Medical Therapy (GDMT), sees HIoW ranked 34th out of the 42 ICBs nationally at 14.1 per 1000 vs 16.3 nationally.

Comparison Data:

Locality	HF Prevelance	Admission Rate	Total Admission Cost (£M)	Average Length of Stay (Days)	Average Cost of Stay (£K)	30 Day Readmission (%)	90 day Readmission (%)
NHS Bath & North East Somerset	1.32	126.15	10.78	13.27	6.38	6.21	11.24
NHS Buckinghamshire	1.04	188.33	6.08	9.69	5.22	7.3	11.16
NHS Dorset	1.66	142.93	9.12	10.68	4.63	5.84	9.9
NHS Frimley	0.97	143.1	7.56	13.23	6.36	4.62	10.5
NHS Surrey Heartlands	0.9	196.01	11.09	9.97	5.45	6.39	9.83
NHS HIOW	1.39	144.21	20.64	11.4	5.92	5.6	9.47
NHS Oxfordshire	1.02	149.19	5.05	6.85	4.03	8.76	11.55
NHS Berkshire West	1.01	160.05	5.27	9.46	5.6	4.26	8.51

These data underlined the need to review the provision of HF services across the ICB to ensure a sustainable and efficient future service will be available for people suspected of HF and those with a decompensation in their existing diagnosis. This represents an urgent challenge to the local system with the incidence of HF projected to rise by 92% in the next 15 years.

2. Standard of Care

2.1 NHS Outcomes Framework Domains & Indicators

The key thematic outcomes of the Department of Health Strategic Outcomes Framework relevant to this report are as follows:

- People living with long-term, chronic and/or multiple conditions or disabilities can live confidently and well.
- People are empowered and supported to manage their health and wellbeing.
- Older people are confident and able to age and live well.
- People approaching the end of life live with dignity.
- People are empowered and supported to gain and maintain positive psychological and emotional mental health and wellbeing.

2.1 NICE guideline: NG106 – Chronic Heart Failure in Adults: Diagnosis & Management, Updated 03 September 2025

This update of the NICE guideline contains existing recommendations relevant to this report within the following domains:

- Diagnosing heart failure.
- Multidisciplinary working.
- Giving information for people with heart failure.

The update also contains key, novel, updated recommendations on:

- Treating heart failure with reduced ejection fraction.
- Treating heart failure with mildly reduced or preserved ejection fraction.
- Starting and monitoring medication for heart failure.

These novel recommendations represent a major shift in practice in terms of heart failure management, which will require system change to effectively achieve compliance.

3. Project Scope

3.1 Aims and Objectives:

The project aims to create recommendations for an evolved Heart Failure Service for people suspected of HF and those with decompensation of their existing diagnosis. The project aims to reduce time to referral, echo and treatment optimisation by ensuring rapid access to diagnostics, diagnosis and guideline recommended therapy in line with recognised standards of care (NICE & ESC guidelines).

Project Objectives:

1. Referral – Create an electronic, standardised referral process, gated by NT-ProBNP and aligned to NICE recommendations for the 2 & 6 week pathway.
2. Triage & Access to Diagnostics – Understand points of variation & access routes, improve Echo capacity and introduce a two tier (soft & clinical) triage.
3. Treatment Optimisation – Introduction of rapid, evidenced treatment optimisation principles in line with guideline directed medical therapy (GDMT).

Project Aims:

1. Reduce time to:
    - Diagnostic investigations.
    - Diagnosis.
    - Access to GDMT and specialist services.
2. Support education, advice & guidance and clinical decision making through optimal use of specialist HF teams across the system.
3. Provide education and support for those living with a HF diagnosis.
4. Reduce admissions and readmissions with acute HF across the system.

Population Covered:

This service specification is for those patients presenting to practitioners within the system with suspected heart failure / worsening heart failure. This comprises two main groups:

1. Those with suspected de-novo heart failure presenting to primary or secondary care. This group will require a timely diagnostic pathway based on the principles outlined in NICE NG106 relating to 2 and 6 week targets for echocardiography and specialist assessment. Patients in this group may present with:
    - Heart failure with reduced ejection fraction (HFrEF)
    - Heart failure with mildly reduced ejection fraction (HFmrEF)
    - Heart failure with preserved ejection fraction (HFpEF)
2. Patients with an existing diagnosis of heart failure presenting with worsening symptoms requiring specialist assessment and input. Patients in this group may be known with:
    - Heart failure with reduced ejection fraction (HFrEF)
    - Heart failure with mildly reduced ejection fraction (HFmrEF)
    - Heart failure with preserved ejection fraction (HFpEF)

The strongest evidence base for therapies requiring longer-term input from specialist services (to optimize medications and consider advanced treatment with devices or heart transplant assessment) exists for patients with HFrEF. The proposed pathway for treatment optimization is therefore focused on group 1a to define the ideal pathway from the point of first presentation to discharge back to primary care.

Patients in groups 1b and 1c, and all patients in group 2, will benefit most from initial management of acute heart failure symptoms, supported by specialist services, to reduce risk of acute / emergency admission. The strongest evidence for long-term medical therapy relates to reducing chances of worsening heart failure and (re)admission. This proposed pathway will define the scope of secondary, community and primary care involvement at each stage for patients in groups 1b and 1c and for all patients in group 2.

3.2 Methodology:

Strategic Leadership Group Membership:

Dr Paul Haydock, Consultant Cardiologist (UHS), and Chair of the Heart Failure Network
Dr Shiba Qumar, GP & NHS HIoW, Clinical Lead for Major Conditions
Becky Rogers, NHS HIoW, Strategic Lead for Major Conditions
Katy Bartolomeo NHS HIoW, Healthcare Managing Director – Community Specialist Services
Rosie Penlington, NHS HIoW, Healthcare Head of Specialist Services
Cathy Price, NHS HIoW, Ass. Prof. Pain Management & Clinical Director for Community Div
Dr Tom Bertram, HIoW ICB, Clinical Director Primary & Local Care, GP
Rob Payne, Health Innovation Wessex, Programme Manager – Innovation Adoption
Lynne Ruddick, Health Innovation Wessex, Ass. Director for Innovation Adoption
Morag Tunstall, AstraZeneca UK Pathway Manager

In November 2024 the above strategic leadership group (SLG) was formed and led by Kirsten Lawrence, Associate Director of Operations, with representation from across HIoW ICB, Health Innovation Wessex and AstraZeneca. Collectively, the group identified three key priority areas of the pathway for review based on opportunities for greatest improvement:

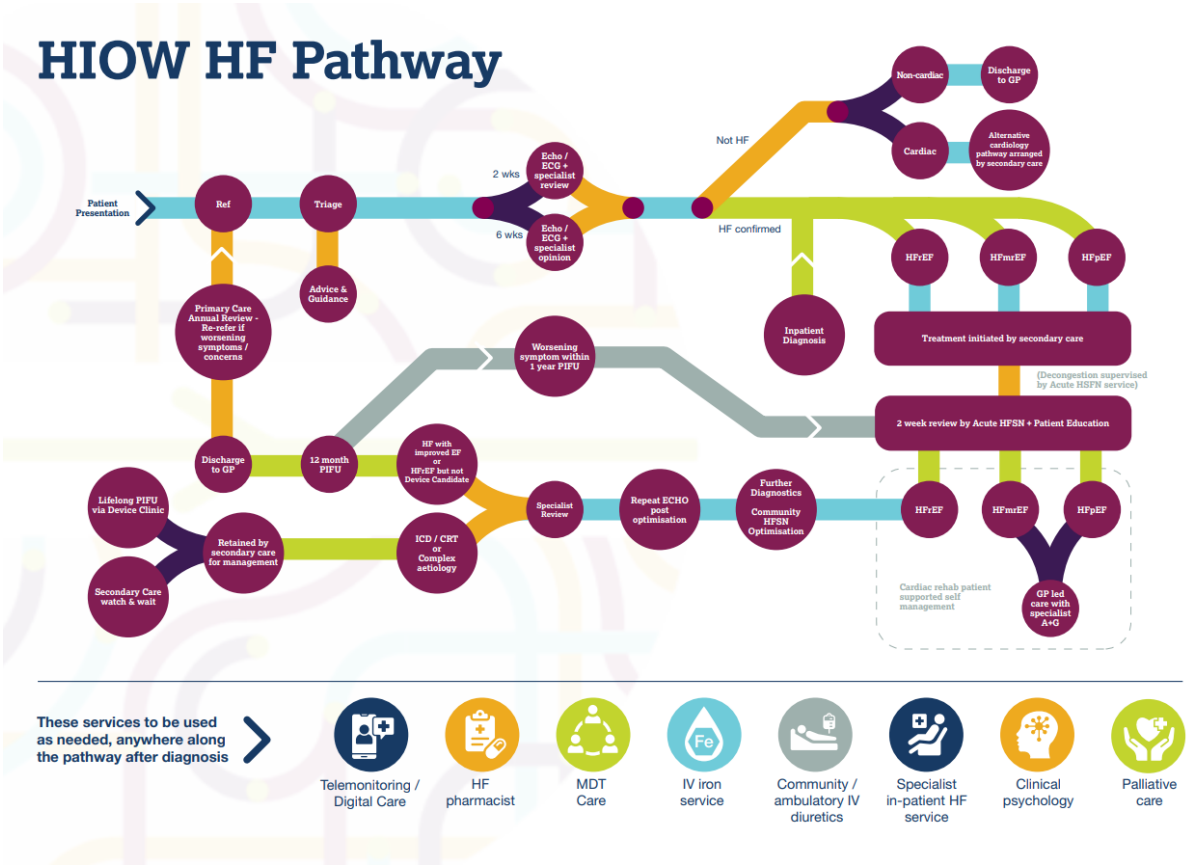
1. Referral
2. Triage and Prioritisation
3. Treatment Optimisation and Discharge

An email from the SLG was sent to colleagues across the ICB in February 2025 to introduce details of the HF Transformation project and invite participation in both the planned April "Current State" workshops and subsequent "Short life" Task & Finish groups. The role of these groups being to establish a proposed "Future State" service specification, focussed around the key priority areas listed above. To understand current state, mapping of the current HF pathway was conducted to identify what was working well and highlight areas of variance and opportunities for enhancement.

The insights gained from both the workshops and task & finish groups have informed these recommendations. The proposed future State infographic below is a high-level representation of the pathway.

Finally, a Consensus workshop was delivered in September 2025, attendees from across the HIoW ICB were invited to vote digitally on a series of questions aligned to the priority area via the Menti platform. It was agreed that consensus would be met when >80% agreement was received. See appendix 3.

<u>New proposed "Future State" Pathway Infographic</u>



We will now look in more detail at the recommendations for each of the priority areas:

3.2 Objective 1 – Referral:

These actions and recommendations have been developed to address the issues identified via the 'current state' mapping exercise in HIoW as points of variation and bottlenecks to accessing services and appropriate therapies – please refer to appendix 2.1 for details.

1. A simplified heart failure referral form has been developed for use across HIoW ICB and will be available via all clinical systems for use (appendix 1). All referrals will require completion of a mandatory minimum dataset, with the referring clinician providing the following:

    - NT-ProBNP (>400pg/ml).
    - Documented signs & symptoms of HF.
    - An assessment of the patient's frailty.
    - Details of whether or not the patient can attend for appointments / echocardiography.

2. Same day NT-proBNP testing for rapid turnaround of results should be available across the system via acute pathology laboratories 7 days a week to allow for rapid in-patient decision making and facilitate urgent referrals from primary care to be actioned as quickly as possible – therefore reducing time to treatment and maximize opportunity for admission avoidance in the highest risk cases.
3. Appropriate, unified messaging regarding the significance of an NT-proBNP result should be agreed across all testing facilities within HIoW.
4. Referrals will be received digitally per place into a central point for review (Soft Triage) by an appropriately trained administrator, who will ensure the referral meets the pathway criteria and is appropriate for clinical triage, this will be completed within 1 working day of receipt.
5. Referrals will be rejected and returned to the referrer with a short explanation if all mandatory fields are not completed.
6. Where integrated HF services exist, soft triage will be facilitated by a single administrator.
7. Where community services are delivered by separate providers, referrals for known HF will be sent from primary care to community services. Should referrals be directed to secondary care and clinical triage identifies that community review would be the most appropriate pathway – and vice-versa – then referrals will be transferred between providers rather than being returned to the GP.
8. Primary care teams referring via this pathway **DO NOT** request an Echo, this will be completed by the specialist HF team.
9. Referrals for new, suspected HF will be triaged by an appropriately trained senior clinician member of the secondary care HF team for review via the rapid access heart failure clinic.
10. Referrals for worsening symptoms in known HF patients will be triaged by a senior HF specialist nurse to provide advice or review. Known HF will mean that the patient has a coded diagnosis of HF in the GP record and evidence of prior echocardiography having been performed and these details should be included on the referral form. **For this aspect of the pathway to be achieved, all community teams will need to be appropriately resourced to provide advice or review in patients with all forms of HF.**
11. Escalation of loop diuretic therapy in primary care should be considered in known HF patients with worsening symptoms and NT-proBNP > 2000 and/or clinical evidence of

congestion. Systems and capacity to provide rapid-response reviews by dedicated 'acute heart failure' specialist nurses to support acute management of decompensation and prevent admission in all forms of HF, regardless of historic LVEF should be seen as priority areas for investment to ensure equity of access across HIoW ICS.

Advice and Guidance:

All referrals received via this pathway will be managed as "Advice & Guidance," allowing appropriate conversations to inform clinical decision making and maximizing in-person review resources. This will result in five outcomes from triage:

1. Access 2 week pathway.
2. Access 6 week pathway.
3. Manage via A&G.
4. Management of worsening heart failure by most appropriate member of MDT.
5. Reject with advice according to specific clinical criteria.

3.3 Objective 2 - Triage and Prioritisation

These actions and recommendations have been developed to address the issues identified via the 'current state' mapping exercise in HIoW as points of variation and bottlenecks to accessing services and appropriate therapies – please refer to appendix 2.2 for details.

1. All appropriate referrals received via daily Soft Triage will be clinically triaged by an appropriately trained, senior member of the Heart Failure MDT in line with NICE recommendations *(5 Day Service).* It should be clear within each service how this operates and roles are allocated and sustainable.
2. All diagnostics following referral will be organised by the specialist secondary care team and will be associated with defined pathways for clinical assessment according to the initial triage.
3. Systems should be put in place to ensure that senior HF specialist nurses /ACPs are able to request echocardiography if felt clinically necessary to inform decision making via the specialist MDT.
4. Capacity should be most effectively utilised within the system, including use of Community Diagnostic Centre (CDC) capacity to facilitate echocardiography and ECG +/- Chest X-ray where most clinically appropriate. Local pathways should be established to facilitate this, informed by A&G and HF MDT working.
5. Patients with suspected de-novo HF and an NT-pro-BNP level above 2000 ng/L will have an echocardiogram and a same-day, in-person clinical review by a HF specialist.
6. Patients with suspected de-novo HF and an NT-Pro-BNP level between 400 and 2000 ng/L will have an echocardiogram performed and case reviewed by a cardiology consultant within 6 weeks for appropriate further management advice to be provided – clinical review should not delay echocardiography.
7. ***Patients with an NT-pro-BNP level less than 400 ng/L should only be accepted if there is significant clinical concern and the referrer has accessed advice and guidance and been advised to refer.***
8. Dedicated diagnostic slots should be retained to support fast track access for those patients referred with de-novo suspected HF who meet the criteria for the 2 and 6 week pathways.
9. Same-day clinical assessment at the time of echocardiography for the highest risk patients with NT-proBNP ≥ 2000 ng/L should be provided by an appropriately qualified member of the specialist HF MDT.

10. Once HF diagnosis is confirmed, prompt initiation of therapy and input from the specialist HF team will be provided via initial appointment within 2 weeks with the acute HF service in secondary care - see 3.4 Treatment Optimisation.

Diagnostics and Assessment Outcome

Outcome of Investigation & Assessment in Secondary Care:

1. No evidence of HF - absence of features of HF on echo and no clinical concerns, patient discharged back to referrer and pathway closed.

2. Echo abnormal but without features of HFrEF:

    - Patient has no features of acute HF or other criteria for escalation - appropriate management advice will be provided to the referring clinician including onboarding to non-HF cardiology pathways if appropriate (e.g. valve clinic).

    - Patient has features of acute HF or other criteria for escalation - appropriate management will be initiated in secondary care, including acute HF treatments prescribed and follow-up arranged (2-week review for patients with features of acute HF).

3. Echo demonstrates HFrEF - patient will be issued with any acute treatment indicated at time of assessment and onboarded to HF pathway for initial 2-week review by acute HF service.

3.4 Objective 3 – Treatment Optimisation & Discharge:

These actions and recommendations have been developed to address the issues identified via the 'current state' mapping exercise in HIoW as points of variation and bottlenecks to accessing services and appropriate therapies – please refer to appendix 2.3 for details.

1. Patients with signs and symptoms of HF and a NT-ProBNP >400ng/L should be considered for prescription of loop diuretic by GP at point of referral, with the strongest consideration given to those with NT-proBNP ≥2000ng/L.
2. The strongest evidence is for the medical management of patients with HFrEF. Specialist HF services will facilitate rapid treatment optimization in the community via a process coordinated by HF Specialist Nurses, working with GPs, pharmacists and community neighbourhood teams.
    - Implementing rapid optimisation principles for all appropriate patients will improve patient care.
    - HFrEF treatment should be initiated on confirmation of diagnosis via echo and specialist review.
    - The aim of treatment in HFrEF will be to establish all 4 pillars of foundational therapy as quickly as possible, up-titrating according to an individualised patient plan. Complex comorbidity and frailty will influence this.
    - Early initiation of all four pillars of HF therapy to maximally tolerated doses (ACE inhibitor/ARNI, beta-blocker, aldosterone antagonist, SGLT2 inhibitor) should be the standard of care. Parallel prescribing aligned to rapid optimisation principles as clinically appropriate should be the default practice – this evidence based approach is strongly dependent on robust, early follow-up by Community Heart Failure Specialist Nursing teams.

- Therapy should be started prior to discharge from acute admission and at, or as early as possible following, diagnostic clinic review.
- Treatment optimisation should be managed by Community Heart Failure Nursing services with access to an MDT led by a HF Cardiologist.
- We recommend prescription of sacubitril/valsartan as first line-therapy directed by a HF specialist in all appropriate patients.
- Remote titration using appropriate technologies to track patients' physiological data and self reported health status, combined with appropriately timed blood testing, should be utilised whenever possible in appropriate patients according to established local pathways.

3. Evidence based therapies for HFmrEF / HFpEF as per NICE NG106 will be recommended for consideration of initiation / continuation via primary care, where appropriate following diagnostic clinic review or acute admission.

NB All prescribing and prescribing recommendations must be in line with locally agreed prescribing policies and formulary and this will require further engagement across the ICB.*

4. There is widespread support for the introduction of role clarity across the clinical team with clear accountabilities and a routine tracking mechanism for treatment optimisation. To achieve this, the following pathway is recommended:
    - Patients diagnosed with HFrEF in acute care settings should be followed up by the specialist HF team / MDT making the diagnosis to maintain continuity of care across the system.
    - We recommend that community specialist HF nurse services aligned to the MDT of the secondary care centre in which the diagnosis has been established are responsible for medicines optimization and PIFU pathways whenever feasible according to geography and patient factors. Where this is not possible, specific arrangements for virtual MDT should be put in place as part of an individualised care plan.
    - We recognise the importance of aligning specialist HF services with neighbourhood teams and see the community HF specialist nursing role as key to this. Models reliant on GP practice to determine access to community nursing services do not reflect the reality of modern systems of care and result in decreased continuity and disjointed care pathways for patients living with HF.
    - Where a HF diagnosis has been arrived at outside of the system, we recommend that patients have a review in a secondary care HF clinic unless frailty / comorbidity prevent this – in which case advice and guidance pathways should be used to agree priorities of management.
    - The exception to this will be patients managed for acute HF following cardiac surgery or other tertiary care in-patient spells at UHS, who will be offered a 2 week review by the UHS service and then appropriately handed over to the referring local cardiology team if further treatment optimization is required. Initial post-optimisation assessment of post cardiac surgery patients will be performed via echocardiography at the time of the post-operative clinic visit, with referral back to the cardiology team at the local centre to direct further management.
    - Community HF specialist nursing visits should follow the principle that individualised treatment optimization should be achieved in the shortest time possible, and that each visit should be meaningful in terms of facilitating a treatment change. Services should work with patients to agree goals of treatment according to tolerability, BP and renal function within a set time frame. A review of these goals should be undertaken by the MDT after 6

community nurse visits to determine the appropriateness of ongoing attempts at up titration and consider adjunctive therapies if required.

- Post-optimisation assessment of LV function to be performed following 3 months of best tolerated medical therapy – this assessment should be arranged by the team optimising treatment. We therefore recommend that community specialist nursing teams are empowered to request echocardiography once best medical therapy has been achieved. Results will be shared across the system.
- Secondary care follow-up clinic to be scheduled according to results of post-optimisation assessment via MDT working – If no further treatment indicated at that stage then discharge to primary care with recommendation to review in primary care at 6 months to review HF and assess for any potential for further optimisation according to individual patient factors established on discharge paperwork.
- Prior to final discharge, bloods should be requested to provide enough lead time for primary care to arrange next review.
- PIFU for worsening HF symptoms via HF Community Nursing teams will be available for 1 year from last contact with specialist HF teams on a rolling basis – by this criterion, patients with persistent and difficult to manage symptoms are unlikely to be discharged from community services. We recognise that there is heterogeneity across currently established community teams with some areas offering life-long PIFU for HFrEF patients. We believe that limited resources would be best used to establish dedicated acute HF rapid response services for patients with worsening HF regardless of ejection fraction and that this will require changes to currently established models and workforce expansion.
- Primary care review 6 monthly - Ardens templates are available to support primary care HF review, further strengthened by A&G to HF community teams.
- Patients with worsening HF, who have been discharged from community nursing services, should be referred back to secondary care services if felt appropriate by the responsible practitioner using dedicated form with description of clinical scenario and NT-proBNP result for appropriate triage.
- Patients who go on to have CRT or ICD implants will remain under lifelong PIFU in secondary care with yearly device check.

<u>Access to self-care information and lifestyle advice</u>

1. During all parts of the care pathway, patients should have access to tailored education about HF, lifestyle modifications, medication management and symptom recognition.
2. Patients should be offered referral and/or signposted to support services including counselling, third sector providers, community services and smoking cessation.

<u>Discharge:</u>

The specialist HF MDT will discharge HFrEF patients back to primary care for routine monitoring which should be conducted at least every six months (incl. Bloods) when:

1. The patient is fully titrated on maximum tolerated HF medication.
2. The patient is on stable doses of loop diuretic therapy.
3. The patient has a clear self-management and escalation plan.
4. The patient has been considered for device therapy if appropriate.
5. The patient has been assessed for iron deficiency/ iron deficiency anaemia and considered for IV ferric carboxymaltose, if appropriate.

6. The patient has been offered cardiac rehabilitation with support for patient's self-management and adjustment of their diuretic therapies.
7. Patients are unwilling to engage or refuse support from the service.
8. Patients deemed as palliative and no longer requiring specialist HF support via a palliative care MDT.

Patients managed for acute / decompensated HFpEF / HFmrEF will be discharged from the proposed acute HF service follow-up back to primary care according to the following principles:

1. A review has demonstrated that they are established on a stable dose of loop diuretic therapy.
2. Appropriate treatment advice has been provided, including any plans for secondary care cardiology follow-up agreed via the specialist MDT.
3. Patients will be provided with self-management advice and recommended to consult with their GP in the context of worsening symptoms / congestion.
4. 6 monthly review in primary care should be arranged. If further specialist advice is required then patients should be referred via the unified referral form for review by the specialist HF MDT.

The registered GP will receive a copy of the patient's management plan and a discharge summary indicating the timescale in which the patient should be followed up and recommendations for personalised ongoing management. Should the patient's condition subsequently change, the patient can be re-referred for prompt advice and guidance, re-assessment or specialist case management if required.

For all patients with HF, best practice should include anticipatory care planning in escalation decision making and include:

1. Assessment of the goals and benefits of treatment escalation.
2. Inclusion of the patient (and their family where possible).
3. Involvement of the cardiology or HF consultant.
4. Agreement among members of the multidisciplinary team.
5. Appropriate management of CIED with clear local pathways relating to ICD deactivation.
6. Communication of the decision with healthcare professionals across the whole care pathway.

<u>Access to Rehabilitation for Heart Failure:</u>

1. All patients with a confirmed diagnosis of HFrEF should be offered access to a comprehensive cardiac rehabilitation programme.
2. Referrals to the programme should be made as soon as possible after a diagnosis has been confirmed and the patient is on a stable and appropriate dose of loop diuretic therapy *(For some patients this may be 0mg)*.
3. Cardiac rehab programmes for HF will likely be 12 weeks long and include a range of personalised, educational, and exercise-based interventions. The service will utilise behaviour change methods and incorporate support for lifestyle changes.
4. Self-care information should be provided in a format that meets accessibility requirements. Digital solutions for appropriate patients should be considered.

<u>Patient initiated follow up (PIFU):</u>

1. At discharge, all patients living with HF should have access to a Patient Initiated Follow Up (PIFU) Pathway if deemed appropriate by the specialist HF MDT. This will give

patients the opportunity to access the HF MDT if they require ongoing help and support without going back to the GP for another referral according to set timescales.
2. PIFU will give patients the opportunity to request follow up if their condition has an uncertain disease trajectory or they require support during a period of decompensation that warrants clinical review.
3. The target response time for PIFU requests should be 2 working days. Specific administration of PIFU pathways will be place-based according to the organisational structure of local teams
4. The PIFU HF traffic light system should be used to help patients and/or carers decide when to access support and which service is most appropriate.
5. All patients should be stable and have medicines optimised before transfer to PIFU.
6. Understanding the PIFU process will require patient and carer education from the HF team.

PIFU Inclusion Criteria:

1. The patient or carer understands and/or accepts the meaning and principles of a continuous PIFU pathway or has a carer who is willing to accept responsibility for monitoring the patient's HF condition on behalf of the patient.
2. The patient or carer understands and feels confident using the HF traffic light system for managing symptoms and knows how and when to call for help.

PIFU Exclusion Criteria:

1. Patients with outstanding investigations or decisions to be made regarding further options for care will be under active follow-up with the specialist HF MDT:
    - Patients who are potential candidates for device therapy (CRT and/or ICD) according to NICE/ESC guidelines but are still awaiting further diagnostic investigations and/or therapeutic interventions.
    - HF patients with uncontrolled symptoms.
2. HF patients who are being managed on an end-of-life care pathway.
3. Patients who are unable to contact the service in a timely way (e.g., lack of access to telephone/ internet).
4. Patients with low levels of knowledge, skills, and confidence to manage their follow-up care and/or no carer support.

Multi-Disciplinary Meetings (MDT):

1. These virtual meetings are to agree the most appropriate management of patients with HF and facilitate seamless care between primary, community, and secondary care.
2. The MDT will provide the opportunity to discuss cases, utilising the knowledge and expertise of the wider HF team, and act as a knowledge transfer mechanism for primary care teams.
3. MDT working should be facilitated by appropriate technology solutions, which allow access to patient data across the system in real time and allow MDT members to communicate asynchronously via a shared care record – this is likely to require bespoke solutions according to local IT systems but should be considered a priority area for investment across the ICB.
4. The purpose of the MDT will be to review complex patients and may include:
    - Patients not on current guideline directed therapies.
    - Patients with worsening HF symptoms in the community.
5. It is our ambition that the HF MDT will evolve to include cross speciality representation from Renal, Diabetes, Care of the Elderly, Respiratory and Palliative Care colleagues to provide a holistic review of patients.

6. We recommend establishing a joint MDT model whereby the palliative care team and HF specialist team hold regular MDTs to review and discuss the management of patients who are deemed to be in their last year of life.

Closing Comments:

On behalf of the strategic leadership team for this project, I would like to thank all those involved for their commitment and enthusiasm for the ambitious aim of improving heart failure services for patients in HIoW. This work has clearly demonstrated the passion that all those involved in the pathway have for their work, and for their patients. This project has identified multiple examples of great care already existing across the ICB but day-to-day this is hampered by a lack of clarity within the system related to communication between primary, community and secondary care, to a greater or lesser extent in all geographies. At the centre of this are people living with heart failure, who need to clearly know where, and to whom to turn at each stage of their chronic illness. Heart failure is a highly complex clinical syndrome, mostly presenting in a cohort with competing comorbidity. By establishing clear standards for referral, diagnostic pathways and short and longer-term follow-up, I hope that we can be confident that all eligible patients will have access to optimal, evidence-based treatment and care according to their individual circumstances.

Best wishes
Dr Paul Haydock

4. Applicable Service Standards

4.1 Applicable national standards (e.g. NICE)

- Chronic heart failure in adults: diagnosis and management, NICE guidance NG106, (last updated 3 September 2025), https://www.nice.org.uk/guidance/ng106/chapter/Recommendations
- Chronic heart failure in adults NICE Quality Standard QS9 (10 January 2023) https://www.nice.org.uk/Guidance/QS9
- Setting up Patient Initiated Follow Up services for People with Heart Failure, NHS England, 29 June 2022) https://www.england.nhs.uk/wp-content/uploads/2022/05/B1212-setting-up-patient-initiated-follow-up-services-for-people-with-heart-failure.pdf
- NICE NG106 https://www.nice.org.uk/guidance/ng106

4.2 Applicable standards set out in Guidance and/or issued by a competent body (e.g. Royal Colleges)

- Royal College of Nursing, Specialist Heart Failure Nurse Competency Framework (2021), https://www.rcn.org.uk/workingwithus/-/media/Royal-College-Of-Nursing/Documents/Working-with-us/Endorsements/Heart-failure-specialist-nurse-competency-framework.pdf

APPENDICES:

Appendix 1: Heart Failure Rapid Optimisation:

Inclusion Criteria	Exclusion Criteria
Non-ischaemic HFrEF (EF<40%)	HFpEF
Non- ischaemic HFmrEF (EF 40-50%) with recent signs of congestion requiring ongoing diuretic therapy.	Patients unable or unwilling to attend clinic/hub for bloods & assessment (unless a community team is available in that Trust area)
Persisting HFrEF/HFmrEF on repeat ECHO following appropriate secondary prevention prescribing for NSTEMI or STEMI.	Heart failure is secondary to significant valvular disease.
HFrEF/HFmrEF following recent ischaemic event with either: ○ Evidence of Q waves on ECG or failure to revascularize on angio. ○ Evidence of congestion during admission requiring diuretic therapy which continues after discharge. (excluding the short-term use of diuretic post-CABG)	LV impairment following recent STEMI or NSTEMI These patients should receive timely secondary prevention prescribing under the supervision of the cardiac rehab team or primary care team unless they have features suggesting LV function is unlikely to recover such as. ○ Evidence of Q waves on ECG or failure to revascularize on angio. ○ Evidence of congestion during admission requiring diuretic therapy which continues after discharge. (excluding the short-term use of diuretic post-CABG)
	Patients using a medicines compliance aid or Blister pack
	Patients who are NYHA IV or are being managed with a palliative approach.

Key Principles

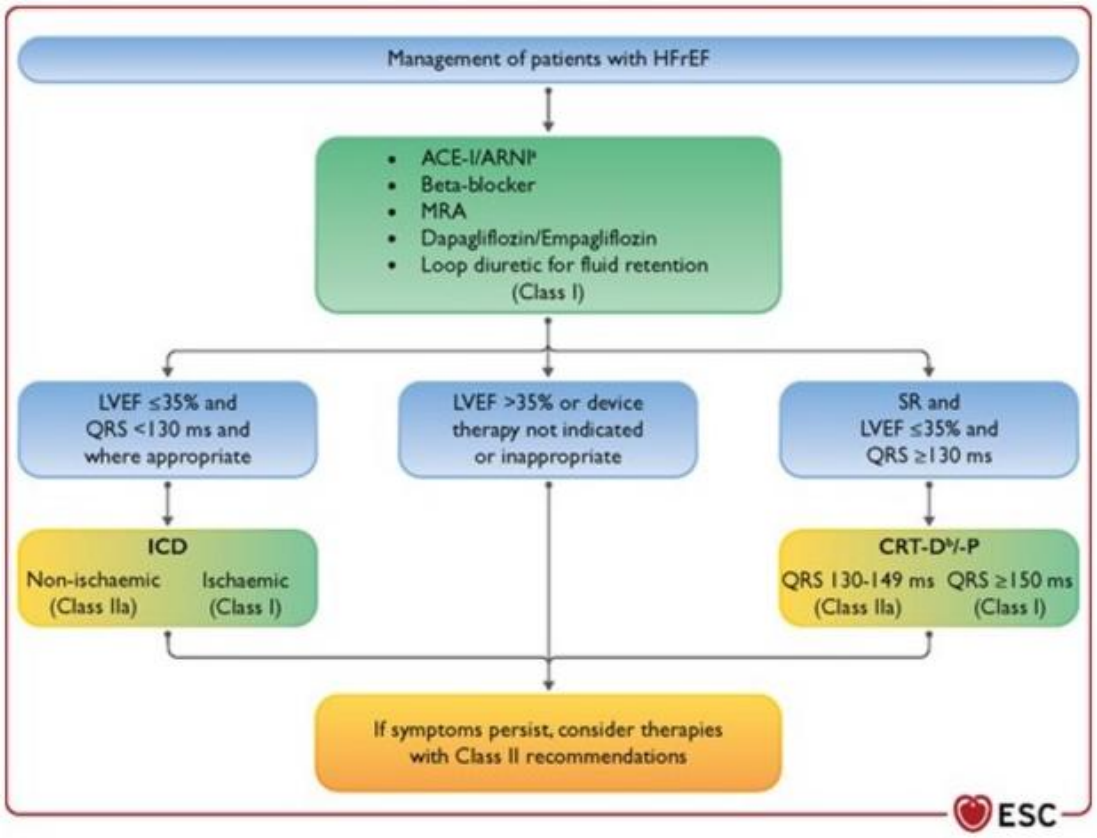
- Aim to establish disease modifying therapy promptly, ideally within four weeks of diagnosis.
- Patients should continue to have up-titration of all four drug classes (ARNi/BB/MRA/SGLT2i) to target dose, even if their symptoms are improving.
- Concurrent, rather than sequential initiation is the **preferred strategy**.
- Loop diuretics may be used to alleviate symptoms. They should be reviewed regularly to ensure that the dose remains appropriate.
- All patients should have an initial, face-to-face, assessment with HFN to determine suitability for rapid optimisation pathway. Factors to consider include frailty, functional capacity, and ability/willingness to attend frequent appointments in initial weeks.
- Patients must be advised of the rationale for prompt optimisation of medicines and agree to participate in this treatment pathway. They should be informed of time commitment re; appointments and willing/able to attend same.
- Clinical judgement should be exercised on the applicability of any guideline to an individual patient. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.
- Patients should be removed from the rapid optimisation pathway and titration delayed if they develop worsening signs/symptoms of congestion, hyperkalaemia, hypotension, bradycardia, significant decline in renal function or significant increase in N-terminal pro-B-type natriuretic peptide between visits.

Adapted from Strong-HF (REF: Safety, Tolerability and efficacy of Rapid Optimization, helped by NT-proBNP and GDF-15, of Heart Failure therapies (STRONG-HF): rationale and design for a multicentre, randomized, parallel-group study (wiley.com). Link to article: ***https://pubmed.ncbi.nlm.nih.gov/36356631/*** STRONG-HF Mebazaa Alexandre et al Lancet 2022; 400:1938-1952

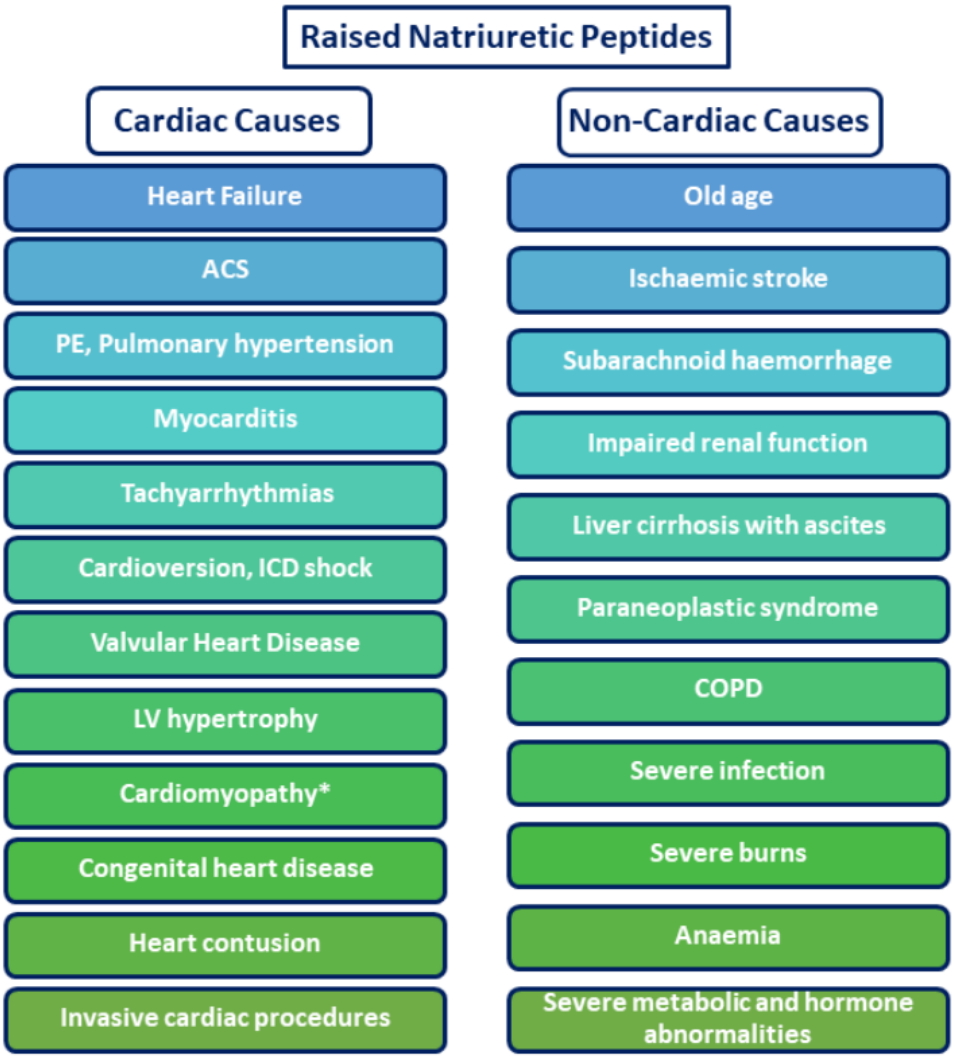
Guidance for delaying up-titrations is as follows:

- ACEi/ARB/ARNi and/or MRAs will not be up titrated if systolic blood pressure is < 95 mmHg, serum potassium > 5.0 mmol/L, or eGFR is < 30 mL/min/1.73 m2.
- If eGFR alone is < 30 mL/min/1.73 m2, clinicians are encouraged to reduce the dose of diuretics if those are deemed high or have been recently up titrated.
- BBs will not be up titrated if heart rate < 55 bpm or systolic blood pressure is < 95 mmHg. If the NT-proBNP level is > 10% higher than the pre-discharge level, physicians should consider not up-titrating BBs and consider increasing diuretics.
- At each visit more than 1 week following initiation, if the patient is not on maximally tolerated doses of BBs and/or ACEi/ARBs/ARNi and based on the above criteria it is deemed safe to up-titrate these medications, further up-titrations will be encouraged.
- Additional visits will be done at 1-2 weeks following any up titration to assess safety and tolerability at which time full physical examination, and laboratory assessments of serum sodium, serum potassium and kidney function measures will be performed.

ESC Medication Guidance for the Management of HFrEF:



Reasons for Raised NT-ProBNP:



Appendices 2:

The HIOW ICB pathway mapping exercise identified several key issues within the existing service delivery model. These issues have been outlined against three priority areas; Referral & Triage, Diagnostics & Clinical Processes and Discharge and Treatment Optimisation, these may help to inform future improvement recommendations.

The information below has been developed by AstraZeneca to outline the outputs from the workshops carried out as part of the Hampshire and Isle of Wight ICB Heart Failure Service Transformation Project. Long Term Conditions and Multi-morbidity pathways – supporting service redesign is offered to the NHS and funded by AstraZeneca as Donated Goods & Services.

2.1 Objective 1 – Referral & Triage:

1.1	Inconsistent or non-standardised referral pathways	All sites reported multiple routes of accessing referral pathways with inconsistent use, criteria, and formats across primary and secondary care. Referral forms frequently lack minimum required data; several formats and legacy processes exist	Inequitable, delayed or inappropriate patient access to diagnostics and specialist care. Referrals may be incomplete, leading to delays and duplication	Variation
1.2	NT-proBNP testing frequency	There is variability in how NT-proBNP testing is used and processed in primary care. Some sites have limited processing frequency (Isle of Wight highlights they use batch testing 2-3 times a week only), whilst other sites have commented on potential over-testing (Portsmouth)	Potential for delayed diagnosis and treatment initiation; inappropriate prioritisation; risk of missed or delayed care for high-risk patients; delayed discharge and overburdened resources.	Variation
1.3	Limited/nonexistent 6-week pathway	Lack of a clear and standardized 6-week pathway for intermediate NT-proBNP levels was noted across several sites. There is inconsistent management for those not meeting the rapid access/high risk criteria	Substantial wait times (8-20 weeks) mean that patients miss timely assessment and access to timely treatment optimisation	Bottleneck
1.4	Triaging limitations & admin burden	Staff do not have protected time for triaging incorporated into Job Plans. Triaging was described as inefficient, and a heavy admin burden has been universally reported.	Delays in referral review and patient assessment. Potential bottlenecks and inefficient use of clinician resources	Bottleneck
1.5	Referral to ECHO diagnostics	Inconsistent requirements for ECHO referrals stated. Referral forms often lack key information or are not standardised as multiple form types are accepted.	Some sites experience unnecessary ECHO requests and see duplication. There may be delayed or inappropriate diagnostics and significant variation in waiting times leading to a possibility for resource wastage.	Variation
1.6	Advice & Guidance	Advice & Guidance referrals occur through multiple routes and formats. It was reported that some duplication effort exists with variation in quality and completeness	Duplication, inefficiency and delayed communication between primary and secondary care can lead to delays in specialist care delivery	Variation

1.7	Referral to community services	Referrals to community HF services lack standardisation, variable entry criteria seen across all sites. Potential overreliance on informal or inconsistent routes e.g., mail/telephone	Missed, delayed or rejected referrals, which consume admin time to manage, result in a high administrative burden; long wait times; delays in follow up and treatment	Variation
1.8	Primary and secondary care handover and duplication	Lack of direct handover between diagnostics and cardiology, or between GPs and secondary care, leads to potential for duplication of referrals and ECHO diagnostics	Unnecessary repeat testing and admin. This delays patient management and risks wasting valuable healthcare resources resulting in extended patient wait times for important diagnostics.	Bottleneck
1.9	Geographical and service commissioning issues	Referrals received from outside intended catchment areas lead to teams expanding geographical reach to offer support. Portsmouth is not commissioned to accept referrals from West Sussex, but patients are still referred due to the absence of a pathway on their side. They also see patients from Chichester and other areas in Hampshire. Portsmouth services are also offered to support the Isle of Wight.	Additional strain on limited resources and reduced capacity for local patients	Bottleneck
1.10	Legacy practice variation	Differential historical practices across sites or within merged trusts were noted in Hampshire, Isle of Wight and Portsmouth, leading to lack of unified protocols and operational confusion	Variation in care and delays due to confusion among referring clinicians	Variation

2.2 Objective 2: Diagnostics & Clinical Processes

No.	Issue category	Issue Description	Impact on Heart Failure pathway	Issue Type
2.1	Inconsistent access to diagnostics	Inconsistent pathways and variable processes for requesting and accessing ECHOs, ECGs and chest X-rays exist across the ICB. Some patients encounter long waits (up to 20 weeks). Referral forms vary. There are separate access routes (direct to CDC in Isle of Wight and GPSI in Southampton, for example)	Delayed or missed diagnoses, inequitable care and inconsistent patient management/treatment timelines	Variation
2.2	Fragmented systems and poor IT integration	Poor communication and interoperability between IT systems across primary care, secondary care and community care leads to siloed results (notably ECHO reports) and manual workarounds or repeated diagnostics. Sometimes only the referrer can see the results.	This approach may result in wasting resources, creating delays in decision making and patient care	Bottleneck
2.3	Resource & Capacity Constraints	There is a shortage of physiologists/sonographers, which leads to extended diagnostic wait times. This has a larger impact in areas of deprivation or in more remote settings (notably within	Inability to meet rising demand results in a backlog and uneven patient access to diagnostic assessment	Bottleneck

		Portsmouth and the Isle of Wight respectively)		
2.4	Inappropriate or inefficient use of diagnostics	A number of referrals for ECHOs are deemed as "inappropriate" and not required. This may be due to inappropriate referral or a lack of triage for ensure ECHO prioritisation exists. Some sites report a low proportion of confirmed heart failure among those that are sent for ECHOs (Southampton, Portsmouth)	Valuable diagnostic slots may be used inefficiently, causing unnecessary waits for patients who truly need assessment	Variation
2.5	Inconsistent Emergency Department pathways	Emergency/inpatient HF diagnosis varies by site and sometimes by individual clinician. For example, in the Isle of Wight, when a patient presents, they may be referred to a consultant, community HF nurse or back to their GP (no defined protocol in place). In Southampton and Portsmouth, patients rely on a Clinician to recognise the signs & symptoms of HF and orders an NT-proBNP test. Patients are sometimes admitted multiple times before this happens. In Hampshire, patients seen by general medical staff sometimes fail to be integrated into the NT-proBNP pathway. In multiple sites, some patients may be discharged before necessary tests (NT-proBNP/ECHO) are completed or communicated	It was reported that some patients "slip through the net" and may decompensate or re-present, or experience delays in management, leading to an increased risk of hospitalisation	Variation
2.6	Geographical and socioeconomic disparities	Rural and deprived areas experience longer waits and greater barriers to diagnostics and follow up appointments due to distance and treatment locations (notably Andover/Hampshire and Portsmouth)	This exacerbates health inequalities. Patients may not complete or engage with their treatment	Bottleneck

2.3 Objective 3: Discharge & Treatment Optimisation

No.	Issue category	Issue Description	Impact on Heart Failure pathway	Issue Type
3.1	Inconsistent initiation of 4-pillar therapy	There is a marked variation in what HF treatment patients are discharged on. Differences exist across wards (cardiology vs general/non-cardiology), by provider or site wide, with age/comorbidity concerns at some sites	This contributes to a risk of inequitable care and suboptimal management. Patients risk under-treatment, higher rates of decompensation and potential readmission.	Variation
3.2	Discharge summary quality/process delays	Discharge summaries were viewed as lacking value to the recipient. These often lack critical information, can be inefficient to	Inefficient use of staff time as documents created often do not offer the information the recipient requires. This may	Variation

		read with the less important/relevant information appearing at the start of the document. Often compiled by Junior members of the team, often without sight of the patient concerned.	result in delays, miscommunication and inconsistencies in post-discharge care.	
3.3	Ineffective patient communication	Communication with patients on their diagnosis and treatment is often generic (leaflets in the Isle of Wight) or lacking entirely. Some patients attend clinics and are unaware of their diagnosis.	This can impact patient understanding, treatment adherence and follow up. Patients may disengage, which raises risks of readmission	Variation
3.4	Inadequate or delayed post discharge reviews	2-week post discharge reviews are inconsistently completed, with some reviewed delayed up to 12 weeks or more. Appears to be a risk of duplication of follow ups between hospital and community teams.	This approach may increase the risk of patients "falling through the cracks", delaying therapy optimisation and risk of increased readmission	Variation
3.5	Heavy administrative burden	Clinical staff, especially community HF nurses, spend a disproportionate amount of time on admin and documentation due to a lack of band 3 support. Recruitment freezes and lack of admin staff continue to worsen the problem	This burden reduces clinical capacity, delays follow up, and increases service efficiency, all of which may impact the quality of patient care.	Bottleneck
3.6	Treatment/titration delays and prescribing barriers	Delays in treatment optimisation are seen due to resource constraints, lack of integrated systems for prescription management, variability in prescribing authority and Primary Care processing delays. There is a reliance on GPs for 4 Pillar optimisation and concerns that sufficient guidance is not in place	Risk of variation in optimising HF patients in line with guideline recommended timeframes. This may impact the benefit of HF medications and risk a worsening of patient outcomes.	Bottleneck
3.7	Limited phlebotomy access	Difficulties for patients in accessing timely blood tests for titration, often exacerbated by limited Primary Care capacity (particularly in Hampshire and Portsmouth)	Delays to titration cycles may increase risk of adverse events and suboptimal treatment outcomes	Bottleneck
3.8	Limited/inequitable cardiac rehabilitation access	Cardiac rehabilitation programmes are oversubscribed and wait times vary by geography. Rehab programmes do not consistently include prescribing within their remit, which may be a missed opportunity. Demand exceeds capacity.	Inequity of access exists meaning patients may miss or experience delays to accessing their Cardiac Rehab programme, this may infer increased risk in terms of patient outcome.	Bottleneck
3.9	System/IT communication barriers	Poor integration across electronic record systems (e.g. SystmOne, Minestrone) between hospital, community and primary care may result in duplication and the introduction of manual communication steps. Not all roles are able to alert or notify other	Reduced visibility in sharing clinical updates, test results and care plans. This can result in repeat diagnostics, increased workload and risk of fragmented care	Bottleneck

		functions via these systems; this is a particular issue in Southampton and Portsmouth.		
3.10	Quality and consistency of discharge processes	Discharge processes, action plans, coding of HFrEF vs HFpEF patients, and titration planning vary significantly. Some areas lack clear follow-up arrangements. There is variability in initiation of titration plans and in engagement/follow up	Risk of missed or delayed optimisation. Incorrectly coded/managed patients. Inconsistent care trajectory and potential for fragmented care.	Variation
3.11	Community capacity challenges	Community waiting times can be up to 16-18 weeks for the Isle of Wight & Southampton sites. Capacity for new and follow-up patients is therefore limited. There is a reduced/limited service for HFpEF patients at most sites. In many cases, HFpEF patients are expected to be managed by primary care, but this may increase the likelihood of pathway re-entry via A&E.	Extended wait times for patients to access optimisation, education and support, may lead to a risk of deterioration, placing increased strain on A&E	Bottleneck
3.12	Post optimisation ECHO access and prioritisation	No clear mechanism or timescale to prioritise post titration ECHOs.	Delayed confirmation of treatment response or disease progression means that future opportunities for optimisation or necessary escalation may be missed	Variation

Appendices 3:

3.1

Referral and Triage	Yes	No	Unsure	Yes %
Q1- Do you agree that a single, standardised point of referral will be beneficial?	19	0	4	83%
Q2 - Do you agree that all patients with suspected Heart Failure should be reviewed in a cardiologist-led clinic according to BNP result when no prior diagnosis of HF has been made?	20	1	0	95%
Q3 - Do you agree that worsening heart failure (HFpEFor HFrEF) presenting in primary care can be triaged initially to specialist nurse led services for subsequent review by MDT for plan.	17	0	3	85%
Q4 - Do you agree that HF Specialist Nurses should have the ability to request repeat echo via any appropriate provider if agreed via MDT?	17	0	1	94%
Q5 - Do you agree that Community services are key and should be equitable across the ICB footprint?	20	0	1	95%

3.2

Access to Diagnostics	Yes	No	Unsure	Yes %
Q1 - Do you agree removing GP access to ECHO will improve capacity/planning?	12	4	5	57%
Q2 - Do you agree that standardising processes aligned to ECHO will improve service delivery?	20	0	1	95%
Q3 - Do you agree that daily access to NT-ProBNP testing will improve flow?	20	0	0	100%

3.3

Treatment Optimisation and Discharge	Yes	No	Unsure	Yes %
Do you agree implementing Rapid Optimisation principles for all appropriate patients wil limprove patient care?	20	0	0	100%
Do you agree increasing Band 3 resource would increase clinical capacity?	8	3	11	36%
Do you agree that in-patient heart failure diagnoses should be screened / triaged by IP HF services to determine community F/U?	19	0	0	100%
Do you agree delivery of 2-week post discharge reviews for all HF patients (HFpEF & HFrEF) will improve clinical care?	19	0	0	100%
Do you agree that newly diagnosed HFpEF &HFrEF with decompensated features should also be offered 2-week initial review?	20	0	0	100%
Do you agree discharging appropriate patients through "timed PIFU" (or similar) will improve future capacity?	14	2	3	74%

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