National Heart Programme

HEART FAILURE MODEL OF CARE

2021

Clinical Design & Innovation

ROYAL COLLEGE OF PHYSICIANS OF IRELAND

CONTENTS

RESOURCES FOR PATIENTS/ FAMILIES

Practical Information for patients, families and carers is available from: www.heartfailurematters.org
For information on what happens during screening, managing your risk and patient frequently asked questions, please contact Heartbeat Trust on 01-2713072 or visit Heartbeat Trust at: https://www.heartbeattrust.ie/patients
For information on Heart Failure please contact Croi on 091 – 544310 or visit www.croi.ie
To receive additional information or support, please call the Irish Heart Foundation on 01 668 5001, email: support@irishheart.ie, or visit www.irishheart.ie. Resources on Irishheart.ie include the Step by Step through Heart Failure booklet and Planning for the Future/ Living with Advanced Heart Failure booklet. Access the private "Heart Support Network – Irish Heart Foundation" group on Facebook. The Irish Heart Foundation Heart Support Network offers expert advice and information, and a place to link in with others living with similar heart conditions.
For more information on the Self-management Support Programme in the HSE, go to www.hse.ie/selfmanagementsupport
Living Well, A Programme for Adults with Long-term Health Conditions. This free group self-management programme supports people to develop the skills, which help them to live well with their long-term health condition. Further information can be found at www.hse.ie/livingwell
Resources for People living with a Long-term Health Condition: The Self-management Support Co-ordinators in the HSE have produced a number of resources. These resources support people to live well with a long-term health condition. Resources for People living with a Long-term Health Condition - HSE.ie

RESOURCES FOR STAFF

Making Every Contact Count Framework https://www.hse.ie/eng/about/who/healthwellbeing/making-every-contact-count/making-every-contact-count-framework.pdf
Heart Failure in General Practice and Heart Failure Appendices, 2019 https://www.icgp.ie/go/library/catalogue/item/B64C3EE3-54C9-422B-ADE05252BDE0756E
2021 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure: Developed by the Task Force for the diagnosis and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC) With the special contribution of the Heart Failure Association (HFA) of the ESC https://academic.oup.com/eurheartj/article/42/36/3599/6358045
Terms of Agreement between the Department of Health, the HSE and the IMO regarding GP Contractual Reform and Service, 2019 https://www.hse.ie/eng/about/who/gmscontracts/2019agreement/.
Living Well with a Chronic Condition: Framework for Self-Management Support, 2017. https://www.hse.ie/eng/health/hl/selfmanagement/hse-self-management-support-final-document1.pdf
Guidance for Heart Failure Management during Covid-19 pandemic (CD 19-057 001/28.04.20) https://hse.drsteevenslibrary.ie/c.php?g=679077&p=4865643

Webinar: Heart Failure in General Practice: Tips and Tricks Dr Joe Gallagher, HSE/ ICGP Lead Cardiovascular Disease https://primarycaretrials.ie/resources/webinar-heart-failure-general-practice/
National Framework for the Integrated Prevention and Management of Chronic Disease in Ireland 2020-2025
National Framework for the Integrated Prevention and Management of Chronic Disease in Ireland 2020 – 2025. A 10-step guide to support local implementation Integrated Care Programme for the Prevention and Management of Chronic Disease
Introduction to Heart Failure: The National Heart Programme has developed an eLearning resource to provide an introduction to Heart Failure for all nurses working in both the acute setting and in the community. It may also be of benefit to other health and social care professionals involved in the care of patients with heart failure. This is available on www.HSELandD.ie
The Self-management Support Co-ordinators in the HSE have produced a number of resources. These resources support healthcare professionals working with people living with long-term health conditions. https://www.hse.ie/eng/health/hl/selfmanagement/resources-for-healthcare-professionals/

GLOSSARY OF ACRONYMS

ADHF	Acute Decompensated Heart Failure	**HF**	Heart Failure
AMAU	Acute Medical Assessment Unit	**HFU**	Heart Failure Unit
AMU	Acute Medical Unit	**HSE**	Health Service Executive
ANP	Advanced Nurse Practitioner	**HSCP**	Health & Social Care Professionals
BIU	Business Intelligence Unit	**ICD**	Implantable Cardioverter Defibrillator
BNP	Brain Natriuretic Peptide	**ICGP**	Irish College of General Practitioners
CAG	Clinical Advisory Group	**KPI**	Key Performance Indicator
CHO	Community Healthcare Organisation	**MDT**	Multi-disciplinary Team
CHN	Community Healthcare Network	**MECC**	Making Every Contact Count
CIT	Community Intervention Team	**MOC**	Model of Care
CNS	Clinical Nurse Specialist	**NHP**	National Heart Programme
COPD	Chronic Obstructive Pulmonary Disease	**NT-proBNP**	N-Terminal prohormone of brain natruiretic peptide
CR	Cardiac Rehabilitation	**OPD**	Outpatient Department
CVD	Cardiovascular Disease	**PHN**	Public Health Nurse
DCM	Dilated Cardiomyopathy	**RHA**	Regional Health Areas
ECG	Electrocardiography	**SMS**	Self-Management Support
ED	Emergency Department	**VC**	Virtual Consultation
ESC	European Society of Cardiology	**WTE**	Whole Time Equivalent
GP	General Practitioner		

Foreword

The National Heart Programme is pleased to launch herein an updated Model of Care for Heart Failure. In keeping with the principals of these documents, this model of care outlines the structures that we should adhere to and adopt in the care of patients with or at-risk for heart failure. The document is not meant to be a guideline document outlining interventions to be used in varied clinical circumstances that present when managing patients with this condition. In this regard the National Heart Programme endorses the guidelines produced and updated regularly by societies such as the European Society of Cardiology. However, this document does detail how patients should be able to access care at various stages of this syndrome of heart failure, and also the duties of the health care professionals who play important roles in providing this care.

As Clinical Lead and GP Lead of the National Heart Programme we would like to thank all those who have contributed to its development. In particular, our thanks to, Dr Sarah O'Brien, to the Heart Failure Working Group and to the Clinical Advisory Group, both groups taking time to develop, read and critique the work to ensure it best reflects what we should be able to achieve in the care of heart failure. We would like to underline the appreciation of all involved in the work of Ms Regina Black who as Programme Manager had the challenging task of bringing it all together into a coherent and important practical guide to heart failure care in Ireland in the modern era.

Prof Ken McDonald
Clinical Lead
National Heart Programme

Dr Joe Gallagher
HSE/ ICGP Lead Cardiovascular Disease

1 Executive Summary

PURPOSE AND AIM

Heart failure (HF) is a medical condition where heart function is compromised, resulting in symptoms such as dyspnoea, fatigue and loss of energy. HF is one of the major chronic illnesses in Ireland today. Approximately 2% of the population (96,000 people) has symptomatic HF. It is estimated that a further 2-4% have significant asymptomatic left ventricular dysfunction (systolic and/ or diastolic impairment of the left ventricle) and are at increased risk of developing HF. HF is one of the commonest reasons for hospital admission in the elderly, often requiring a prolonged stay.

This burden and prevalence of HF on individuals, their families and the health service is increasing due to the ageing population, continued challenges with risk factors such as hypertension and the increasing prevalence of diabetes, better survival after coronary events and improved treatments for a cohort of the heart failure population.

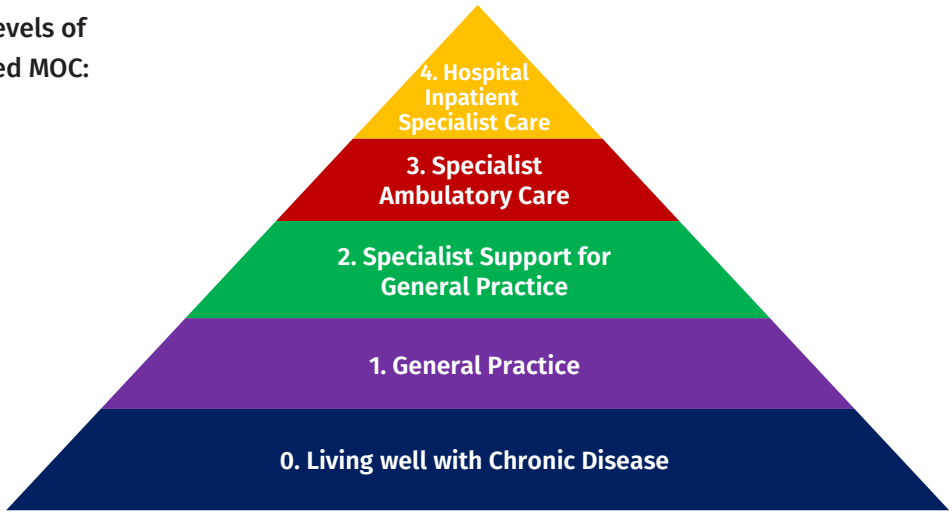
The National Heart Programme (NHP) is charged with changing how we deliver care to people with HF through development of a national model of integrated care. This document describes the Model of Care (MOC) for HF, following international best practice. It covers the full spectrum of care provided in hospitals and in the community with a focus on developing partnerships between the acute hospital services, general practice and community services and the patient and his/ her family.

MODEL OF INTEGRATED CARE FOR HEART FAILURE

Implementation of the MOC by clinicians and managers is supported by a range of documents (see appendices) describing care pathways, clinical guidelines, other decision-making tools, and guidance on governance, as well as outlines of roles and responsibilities.

The MOC for HF aims to reflect the spectrum and levels of services outlined by the proposed Integrated Care Programme for the Prevention and Management of Chronic Disease (ICPCD). The spectrum of services is ideally delivered across all levels of service delivery/settings.

Figure 1.1: The five levels of care in the integrated MOC:



The aims of the Model of Integrated care for heart failure are:

- To prevent or delay the onset of HF.
- To improve the delivery of care to people with HF across all five levels of care.
- To improve the quality of life and prolong life for patients with HF.
- To ensure care is in line with the objectives of the NHP.

A growing body of data, from national and international sources, shows that disease management programmes for HF, encompassing primary care and hospital services, can produce significant reductions in the need for hospitalisation, achieve better quality of life and outcomes for patients cared for predominantly in the community as well as improving our capacity to prevent HF. Shared care, multidisciplinary based approaches are recommended in achieving the most effective HF care outcomes.

The elements of care provided in this Model of Care are:

- Prevention of HF.
- New diagnosis of HF in the community.
- Maintenance of optimal care of HF in the community.
- Emerging deterioration of HF.
- Hospital care of HF including post-discharge follow-up.
- Advanced Heart Failure Service.

The MOC for HF has adopted, for the most part, the recent 2021 European Society of Cardiology guidelines for the diagnosis and treatment of acute and chronic HF.[1]

GENERAL PRINCIPLES UNDERLINING THE MODEL OF CARE FOR HEART FAILURE

The following general concepts and principles underpin this model of integrated care for heart failure services:

- HF is a chronic disease not a terminal disease. Similar to all chronic diseases the overall aim of care is to delay the onset of the disease, and when present, care focuses on maintaining quality of life and minimising the need for hospital intervention.
- A shared care approach is recommended, which will be led by the physicians in charge in the hospital service and in the community. Certain well-defined time points in the natural history of HF require specialist input. Members of the multidisciplinary team (MDT) should be involved at these time points and in circumstances outlined below.
- Attention should be directed at further evolving the professional roles in the care of the HF patient, in particular in primary care. These include, but are not limited to, developing the role of the clinical nurse specialist (CNS) for integrated care in the community, the practice nurse and expanding the role of the community pharmacist.
- The care structure for HF needs to incorporate the issue of patient choice and recognise the importance of the perspectives of patients and their families and carers in delivering high quality care.
- The programme needs to address the needs of the whole population.
- Management of HF should be seen as a shared responsibility between patients, their carers and health care professionals. Therefore, it is critical that patients and their families become actively engaged in prevention, improving their health behaviours and self-management.
- As the HF population is in general elderly and suffers from multiple co-morbidities, it is important that unnecessary travel is avoided. Improved access to diagnostics in primary care and modern-day communication strategies should be adopted to ensure patients can avail of optimal care in the optimal setting e.g. virtual consultation (VC) (Appendix 1) or telemonitoring.
- Any strategic development in HF services should be clearly seen to be cost efficient, provide value for money and be supported by either a strong evidence base or consensus on best practice.
- Development of this service needs to occur in tandem with the evolution of services for other chronic diseases and within the framework of the Integrated Care Programme for the Prevention and Management of Chronic Disease (ICP CD). It is likely that there will be aspects of the development of the HF service that will be of benefit to other chronic diseases.
- Development of HF services will be in line with the Health Service Executive (HSE) development of integrated services, the other HSE Clinical Programmes and with Department of Health (DOH) cardiovascular policy.
- The national model framework for HF services will be implemented through regional and local structures.
- Implicit in this document is an assumption that all staff appointments required for the effective development of HF services will be made. This includes cardiologists with expertise in heart failure care (presently in short supply in several areas of the country), and a number of specialist nurses with a hospital and community remit. Adequate resourcing of general practice, community specialist teams and community health networks will also be essential to ensure provision of appropriate care in the community. Much of what is described in this document will require additional resources in primary and secondary care to enable implementation.
- Integration of primary and secondary care information systems will increase efficiencies.

2 Rationale for and Role of The Model of Care

2.1 RATIONALE FOR MODEL OF CARE FOR HEART FAILURE

The NHP model of care for HF aims to improve all stages in the prevention and treatment of HF. It is one of a number of chronic diseases for which the HSE have decided to develop a systematic approach to changes in how services are delivered to improve outcomes for patients.

The HF MOC proposes to change how we deliver care to people with HF or at risk for HF and support a national model of integrated care. This MOC which follows international best practice covers the full spectrum of care for HF, focussing on the development of partnerships between the acute hospital services, general practice led community services, the patient and their family.

The MOC outlined in this document details how physicians, nurses, and other health care professionals will work with patients to make the clinical decisions most appropriate to their circumstances, to allow empowerment of patients to self-manage where possible and to promote collaboration with and between specialist colleagues in providing optimal care for patients in the Irish healthcare system.

Figure 2.1 Aim and Objectives of the Model of Care for Heart Failure

AIM

To improve the quality of CARE for patients with or at-risk for Heart Failure

OBJECTIVE

- **Every patient with symptoms of heart failure is diagnosed correctly and without delay**
- **Every patient with heart failure is managed within a structured programme**
- **Implement targeted programme to prevent heart failure**
- **Reduce hospital dependency**

In addition to guiding the delivery of the above objectives, this MOC for HF reflects the key reform themes identified by the HSE to improve the health of the population, and to reshape where and how services are provided:

- Improving population health.
- Delivering care closer to home.
- Developing specialist hospital care networks.
- Improving quality, safety and value.

2.2 IMPROVING OUTCOMES FOR PEOPLE WITH HEART FAILURE

The MOC takes a holistic, person-centred and life-course approach to the provision of services. Within an integrated health service, individuals receive a continuum of health promotion, disease prevention, diagnosis, treatment, disease-management, rehabilitation and palliative care services that are coordinated across different providers and healthcare sites[2], both within and without the health sector. Such an approach places people at the centre of care, with services planned around them according to need.

The MOC for HF aims to reflect the spectrum and levels of services outlined by National Framework for the Integrated Prevention and Management of Chronic Disease in Ireland 2020-2025.[2] The spectrum of services, ranging from primary prevention to tertiary care, includes:

- Primary prevention and health promotion.
- Risk factor identification & management (Making Every Contact Count (MECC)) (Appendix 2).
- Early detection of disease and diagnosis.
- Secondary prevention: (MECC, Self-Management Support (SMS)) (Appendix 3).
- General Practitioner (GP) Led Primary care management of disease.
- Shared primary and secondary care management of disease.
- Secondary care management of chronic disease.
- Tertiary care to include advanced heart failure services.

The spectrum of services is ideally delivered across five levels of service delivery/settings.

Figure 2.2 Level of Service for Chronic Disease

The MOC reflects the goals of *Healthy Ireland (A Framework for Improved Health and Wellbeing 2013-2025)*[10] which are to increase the proportion of people who are healthy at all stages of life, to reduce health inequalities, to protect the public from threats to health and wellbeing and to create an environment where every individual and sector of society can play their part in achieving a healthy Ireland. *The Healthy Ireland Framework* sets out a whole of government and whole of society approach to address the determinants of health and wellbeing across the life course.

The aims of the MOC in turn reflect many of the actions outlined in the Sláintecare Implementation Strategy[4] which continues the cross-government focus on health and wellbeing initiatives under the Healthy Ireland Framework.[10]

Aims of the Model of Integrated Care for Heart Failure

- Prevent or delay the onset of HF.
- Improve the delivery of care to people with HF across all levels of care i.e. specialist inpatient, specialist ambulatory care, specialist support to General Practice and chronic disease prevention and management in Primary Care, all supported by patient self-management.
- Improve quality and duration of life of people with HF.

2.3 INTRODUCTION TO HEART FAILURE

HF is a clinical syndrome characterized by typical symptoms (e.g. breathlessness, ankle swelling and fatigue) that may be accompanied by signs (e.g. elevated jugular venous pressure, pulmonary crackles and peripheral oedema) caused by a structural and/ or functional cardiac abnormality, resulting in a reduced cardiac output and/ or elevated intra cardiac pressures at rest or during stress.

The causes of HF are varied. The most common conditions predisposing to HF are history of ischaemic heart disease, hypertension, valvular heart disease and diabetes. It should be noted that in a proportion of cases multiple conditions may be contributing and in a significant minority of cases no clear aetiological cause is defined.

Based on international prevalence rates from countries with similar demographic characteristics it is likely that approximately 2% of the adult population suffer from HF and dominantly affecting older individuals (~10% of those aged over 70). The prevalence is increasing reflecting the ageing population, challenges with risk factor management and improved survival in ischaemic heart disease and indeed HF itself. There are approximately 6,000 primary HF admissions, with an average length of stay of 10.58 days and a further ~15,000 acute admissions where HF is thought to play a significant role. Approximately 30% of patients are readmitted within 90 days. It is evident therefore that HF consumes a large number of bed days in the country. There are approximately 100,000 OPD visits for HF per annum. Currently waiting time for outpatient department (OPD) referrals is on average 6 to 9 months and a 2012 national GP survey by the former National Clinical Programme for Heart Failure and the ICGP showed that the vast majority of GPs found these waiting times a significant barrier to managing HF in Primary Care.

The morbidity burden and impact on longevity of HF is well described. One of the major features of the patient experience within the present health care structure is frequent need for hospitalisation; emerging international and national experience with an integrated care strategy for HF indicates that hospitalisation rates can be significantly reduced. Not only would this represent a significant advance for the patient and family, but it would also have a marked positive economic and bed utilisation impact.

Economic evidence highlights that HF is a major drain on health care spending accounting for an estimated 2-4% of total healthcare budget based on data from the UK and the US. A 2015 review of health care cost for HF in Ireland[5] arrived at an estimated expenditure of approximately of 700 million per year for the care of this group of patients. The major driver for this large budgetary impact of HF is the need for hospitalisation.

2.4 HEART FAILURE AND COMORBID CONDITIONS

With the ageing of the population in general and the HF population in particular there is increased recognition that a patient with HF invariably suffers from at least one and often more than one other medical conditions. This confluence of morbidities makes the management of HF and attendant other conditions more complex and underlines the need for integrated care at community level. It also highlights how guidelines will need to be adapted to the individual patient dependent on their comorbidities. For more detail on co-morbid conditions please see Heart Failure Appendices on the Irish College of General Practitioners (ICGP) website (ICGP Appendix 3 Common Co-morbidities in Heart Failure).[6]

3 Proposed Model of Integrated Care for Heart Failure

3.1 KEY ELEMENTS OF THE MODEL OF CARE

An effective HF MOC defines the way in which health care services are delivered. It describes the care required, details who should provide it and outlines where the service or care should be delivered. The MOC for HF has adopted, for the major part, the most recent European Society of Cardiology (ESC) guidelines (2021) for the diagnosis and treatment of acute and chronic HF.[1] This has been approved by the Irish Society of Cardiology. The actual clinical management of HF is described in clinical guidelines referred to throughout this document with particular elements included as appendices. The MOC is concerned with how to organise the delivery of services to all patients with HF so that they can receive care according to these standards. Care algorithms (Appendix 4), care bundles (Appendix 5) and other tools to guide clinical decision making are based on the ESC Guidelines with some local adaptations. The elements of the care provided in this MOC are outlined in Table 3.1.

TABLE 3.1 ELEMENTS OF THE INTEGRATED CARE MODEL FOR HEART FAILURE

Care Type	Provider of Care	Care Setting
· Prevention · New Diagnosis · Maintain Optimal Care · Emerging Deterioration · Hospital Care · Hospital Discharge Care · Advanced Heart Failure Service · End of Life Care	Physician Led Multi-disciplinary Team Care approach (see roles in Appendix 8)	**Level 0:** Living Well with Chronic Disease **Level 1:** General Practice Chronic Disease Management **Level 2:** General Practice with Specialist Supports **Level 3:** Specialist Ambulatory Care **Level 4:** Hospital Inpatient Specialist Care

Elements of care provided in the Heart Failure Model of Care	
PREVENTION	· Focus on general risk factor care led by the GP in the community, including close attention to blood pressure and diabetes management and prescription of vascular protective therapies where indicated. All in conjunction with patient adoption of good lifestyle habits. · Consideration of STOP-HF[16] approach in higher risk cohorts defined by elevated natriuretic peptide (NP). Service to be provided by the GP and in certain circumstance by shared care approach with specialist services. NT-proBNP and echo diagnostic testing to be available in the community to support the process.

NEW DIAGNOSIS IN THE COMMUNITY	· Patients with suspected new onset of HF to be seen by the HF service (consultant review) ideally with time intervals outlined by the Irish Cardiac Society (per recent statement of Irish Cardiac Society). Standard review within the HF clinic or by VC.
MAINTENANCE OF OPTIMAL CARE	· Structured reviews in general practice by the GP with assistance from the practice nurse and the CNS as required focusing on establishing best care with strategies to ensure patient care is kept current with new advances.
EMERGING DETERIORATION	· Patient has immediate access to GP-led community services and where needed similar ease of access to out-patient HF specialist review or by VC to ensure rapid effective treatment and avoidance of onward need for ED or hospital care.
HOSPITAL CARE	· Patient admitted to hospital with primary diagnosis of Acute Decompensated Heart Failure (ADHF) to receive specialist in-patient care from the local clinical lead for HF or delegate, combined with multidisciplinary care from other team members. · This approach is to ensure optimal medical care, patient/family instruction in self-care and optimize discharge planning to outpatient facility.
HOSPITAL DISCHARGE COHORT	· Review the patient within 2 weeks post discharge (dependent on risk determination at discharge) and again at 6 and 12 weeks. · On non-clinic weeks, patients to be contacted by CNS to assess wellbeing. · Clinic should be available for same day assessment if there is evidence of clinical deterioration as notified by patient/ Family or GP. · At 12 weeks, based on risk assessment, determination will be made to discharge back to GP or continue to follow. · In all patients, including those discharged back to the GP, review process to be put in place for stable patients at annual intervals to ensure care is updated to reflect advances in approach to management of HF. This aspect of management may be through use of VC or other methods of disseminating information on therapeutic advances.
ADVANCED HEART FAILURE SERVICE	· Where indicated (age, course of illness, comorbidity burden) consideration for referral to Advanced Heart Failure Progamme to assess appropriateness of heart transplantation or ventricular assist device therapies.
END OF LIFE CARE	· When indicated (age, course of illness and patient/family wishes) consideration should be given to focus on end of life care in consultation with local palliative services.

Not all approaches are needed for every patient. Assessing the potential benefit of each approach at each stage of the illness is a crucial aspect of effective disease management.

The delivery of this MOC requires the collaboration of hospital and community services working together to maintain health and prevent hospital admissions. The MOC is delivered by a multidisciplinary, physician - led team across the 5 levels of service.

3.2 SHARED CARE IN AN INTEGRATED SERVICE

A shared-care approach by specialist and community-based services is required to provide care through the different phases of HF. These phases range from the person at risk of developing HF to palliative care for terminal disease where advanced HF therapies are no longer appropriate. Patients may enter the HF care programme at different points. Nonetheless, whatever the entry point all appropriate services should be available for use by the patient. Central to the provision of care is an integrated approach with care shared between the specialist-led and GP-led community services.

The ICP CD proposes a continuum of preventive, diagnostic, care and support services based on the following:

Guiding principles:

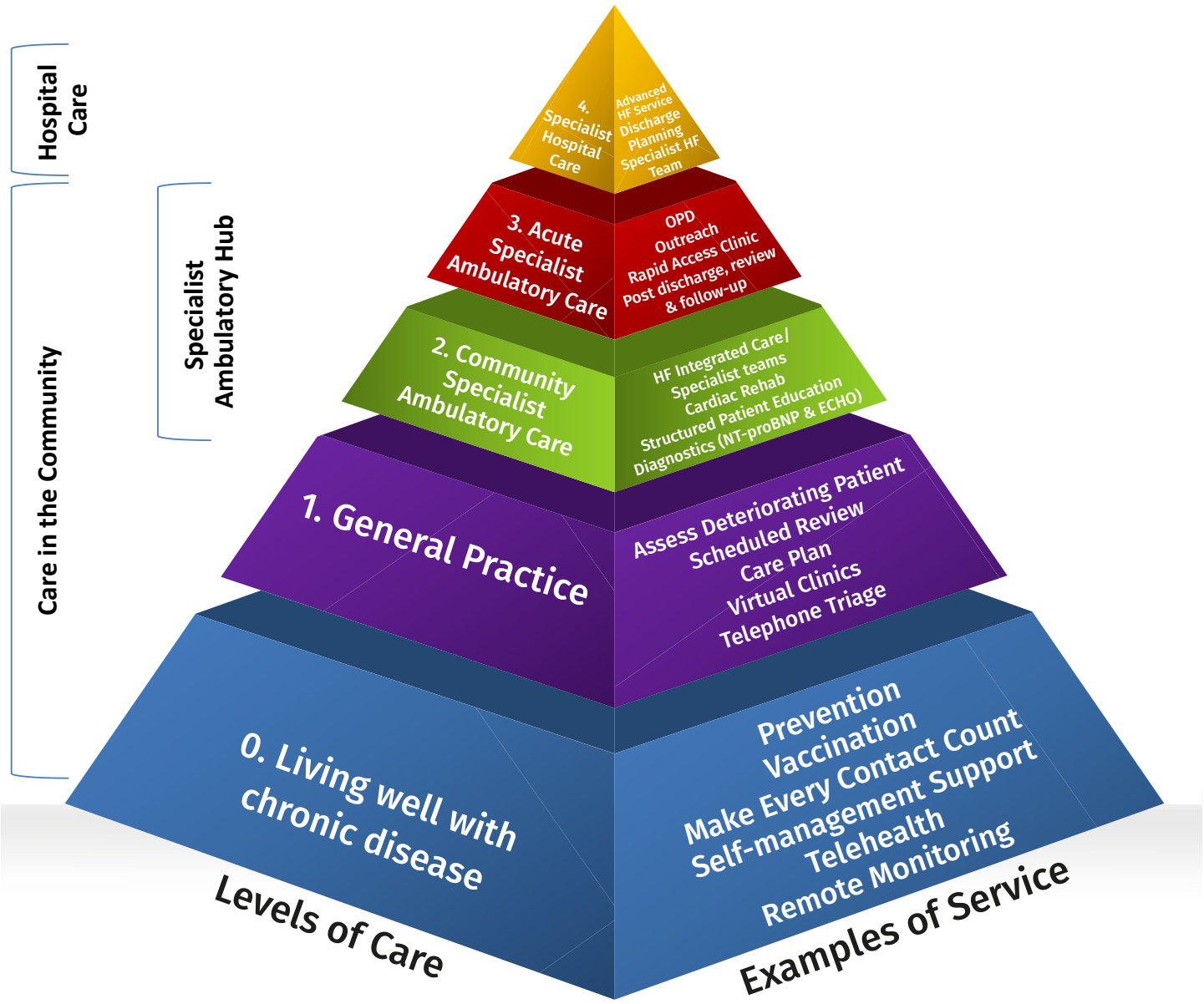
- Actively engaging people in prevention, improving their health behaviours and encouraging self-management.
- Most care for people with chronic diseases will be provided by the GP-led commuity services and practice nurse.
- Patients will have access to diagnostic services and MDT's to support their care.
- Specialist knowledge and services will be available in the community with links between local hospital specialists and clusters of GP practices.
- Where necessary specialist hosptial-based services shall be available in the appropriate timeline.
- Standard clinical pathways will be implemented through the local clinical networks.
- The person's information will be shared (with their consent) to support decision making at the point of care.

People at risk of or living with a chronic disease, such as HF, will be able to receive a spectrum of services/care according to their needs (described in greater detail in Chapter 4). It is envisioned that patients with chronic diseases will be active partners when accessing these services.

3.3 INTEGRATED CARE MODEL FOR HEART FAILURE

The patient can move back and forwards between the five levels of service involving care givers as clinical need dictates, with the GP and the PCTs having a lead role in supporting and managing patients with chronic disease and referring to a specialist when appropriate. Implementation of this model of HF care allows patients to receive a high standard of care and maintain as normal a life as possible. The pyramid at Figure 3.1 below, based on the model developed by the HSE's ICP CD, depicts this approach with 4 levels of service aligned to Regional Health Areas (RHA's), local clinical networks, community health organisations (CHOs) and hospitals.

Figure 3.1 Model of Integrated Care for Heart Failure



3.4 ROLES OF HEALTH CARE PROFESSIONALS IN DELIVERING MODEL OF CARE

Delivery of a HF specialist service is multifaceted and requires input from the full HF MDT to deliver high-quality care to all people with HF. Patients with HF will require care in different contexts as their severity differs and as they progress through their illness. Care will be delivered by different members of the HF MDT depending on the stage and stability of the patient's disease. The various members of the HF MDT (for all levels of care) and description of roles are available in Appendix 8.

3.4.1 Heart Failure Roles in the Community

When fully developed the HF service will seamlessly link the patient with GP-led community services and cardiologist-led hospital services. The ambulatory care should be in the community; critical to the success of such a service will be the full range of multidisciplinary skills under the guidance of the GP. The structure of Specialist Ambulatory Care Hubs and Community Healthcare Networks (CHNs) will enable CNS's and health & social care professionals (HSCP's) to provide care across a geographical area with a number of GPs.

Essential community staffing supports:

- All GPs and practice nurses will have access to education in HF management as required and equipped with guidelines, care pathways and algorithms for prevention, diagnosis and management of HF (MECC Framework[7] and Heart Failure in General Practice 2019[8]).
- Consideration to be given to the development of the role of GP's with a special interest to enhance the capacities of effective medical community management of heart failure.
- Community specialist teams should have specialist nurses available at CNS/ Advanced Nurse Practitioner (ANP) level, their duties to aid the GP in management of HF (in case of ANP independently manage low risk patients), provide self-care education to patients and families and also educate practice nurses and public health nurses (PHNs) in the basics of HF care. These CNS's should have a formal link to the hospital based system (one day per week or equivalent) to facilitate continuity of care and regular up-skilling of the nurse.
- Multi-disciplinary HF care is provided through each community specialist team, including access to CHN physiotherapist, dietitian, psychologist in addition to specialist nurse, pharmacist and social worker.
- The HF service should have adequate support staff for administrative functions, including communicating with patients, primary care providers and other services involved in the care of patients.
- Information technology developed to allow electronic communication between providers.
- Dedicated staff available to maintain patient registers and produce monitoring data in both primary and secondary care.
- Cardiac physiologists linked to the community, available to undertake Doppler-echocardiography and other linked non invasive cardiovascular investigations that can be done in the community setting.
- Ongoing education and professional development for all staff involved in HF care.
- Standard national HF education programme available on ongoing basis.

Overview of key community staff requirements to support the General Practitioner

- CNS (Integrated Care) 1 per CHN in the hub specialist team.
- To perform Doppler-echocardiography and other related non-invasive cardiovascular investigations (integrated governance with hospital services).
- Access to HSCP's including physiotherapists, psychologists, nutritionists, in the CHN development of new mode of communication with community pharmacist.

3.4.2 Hospital Based Staff

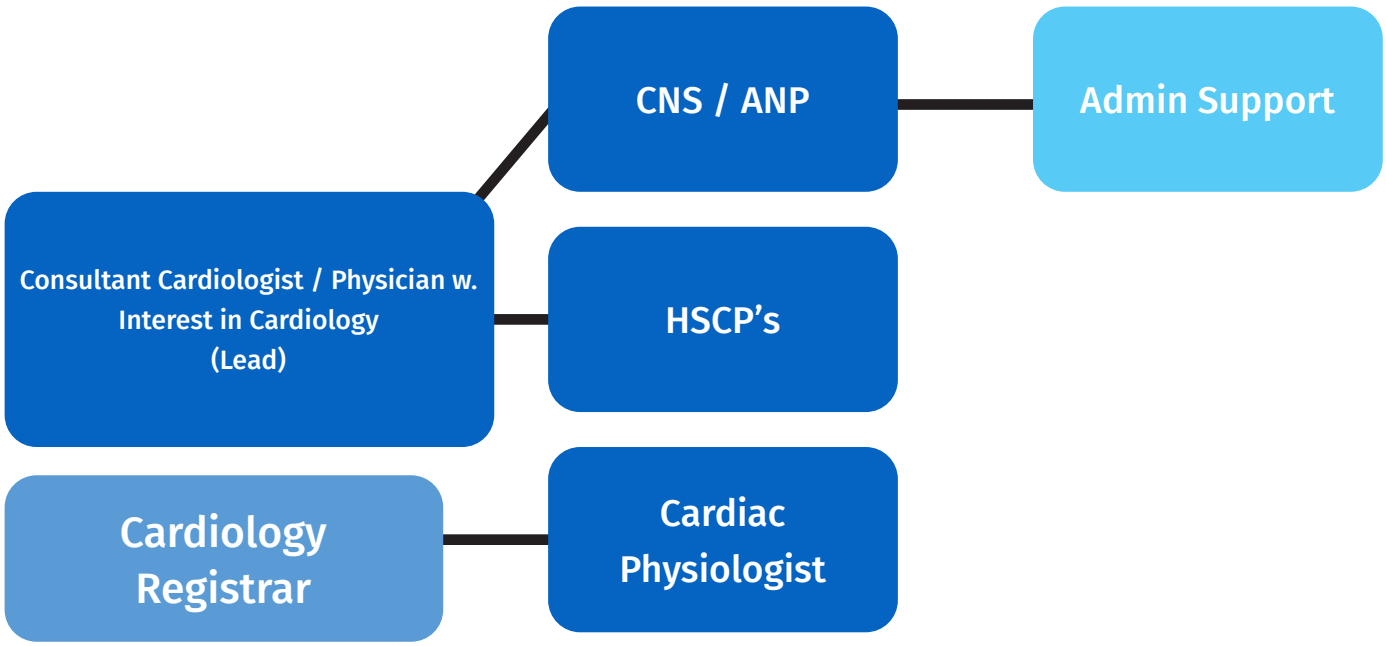
Each hospital/ RHA to have a lead consultant cardiologist or general physician with training in cardiology who is responsible for the development and management of services for HF patients attending the hospital, and linking with local CHOs to ensure optimal community care. Additional trained medical staff at Registrar level should be assigned to the team.

Each hospital should have in place a minimum of two specialised nurses (CNS's and/ or ANP's) to ensure continuity of patient care in model 2, 3 and 4 hospitals. Larger units may require an increase in WTE nursing support as patient numbers increase.

HF care beyond the medical and nursing care is to be provided by a coordinated MDT, including physiotherapist, dietitian, psychologist, pharmacist, occupational therapist and social worker. Additionally, cardiac physiologists play an essential diagnostic support role in the management of HF and should be available particularly to undertake and report on Doppler-echocardiograms of HF patients in a timely manner.

The HF service should have adequate support staff for administrative functions, including communicating with patients and primary care providers. These staff should be available to support the HF team for routine administrative functions but also to facilitate the link with the community.

Figure 3.2 Hospital based staffing structure:



Overview of key hospital staff requirements

- Specialist Heart Failure Lead in each model 3/ model 4 hospital.
- RHA Specialist Heart Failure Lead (6).
- Hospital CNS – in keeping with the British Society for Heart Failure Nurse Forum recommendations 2019[9] an increase in the number of heart failure specialist nurses in the range of 2 – 4 WTE's per 100,000 depending on complexity of care requirement is recommended.
- Registrar assigned to HF service.
- Adequately resourced Non-Invasive investigative services.
- Appropriate Admin support including IT support for VC.

3.5 LEVELS OF CARE

All patients with a suspected or confirmed primary diagnosis of HF will have access to specialist HF services (inpatient and outpatient care) for rapid diagnosis, assessment, acute treatment, post-discharge care and rehabilitation according to agreed care pathways and accepted guidelines.

Each RHA will provide a full range of HF services to all patients at each stage of their illness based on quality, access, cost-effectiveness and equity. The close integration of local community services with acute day services, acute in-patient services and GP-run community hospital services will be essential in providing the full spectrum of supports for patients. A priority for the NHP is to maintain care in the community and provide hospital care when needed at the most local hospital feasible.

3.5.1 Heart Failure Care at Level 0: Prevention

HSE health promotion services will address primary prevention of cardiovascular disease (CVD) in the community and be supported by GPs, practice nurses, PCTs and CNS's to undertake preventive activities including MECC interventions.

3.5.2 Heart Failure Care at Level 1: Primary Care Chronic Disease Management

Certain aspects of HF care can and should be delivered within Primary Care. Many patients with HF will present initially to primary care (Level 1). In this setting the GP is responsible for accessing specialist investigations and opinion to confirm the diagnosis and set out a treatment plan as deemed appropriate. GPs provide the clinical lead with the **diagnosis, assessment, treatment and on-going monitoring** for the majority of patients with HF. GPs and GP practices have a central role to play in ensuring an integrated, patient-centred approach to support patients to self-manage their own condition and to keep the patient where possible in a stable state and prevent acute exacerbations.

In the management of stable HF it is envisaged care will be primarily delivered in Level 1 (Table 3.2) and Level 2 of the proposed model, with rapid access to HF specialist expertise ambulatory care and/or specialist in patient care where further diagnostic investigations or specialist advice may be necessary (Levels 3 & 4). Certain categories of stable patient will require on-going input from Level 3 care.

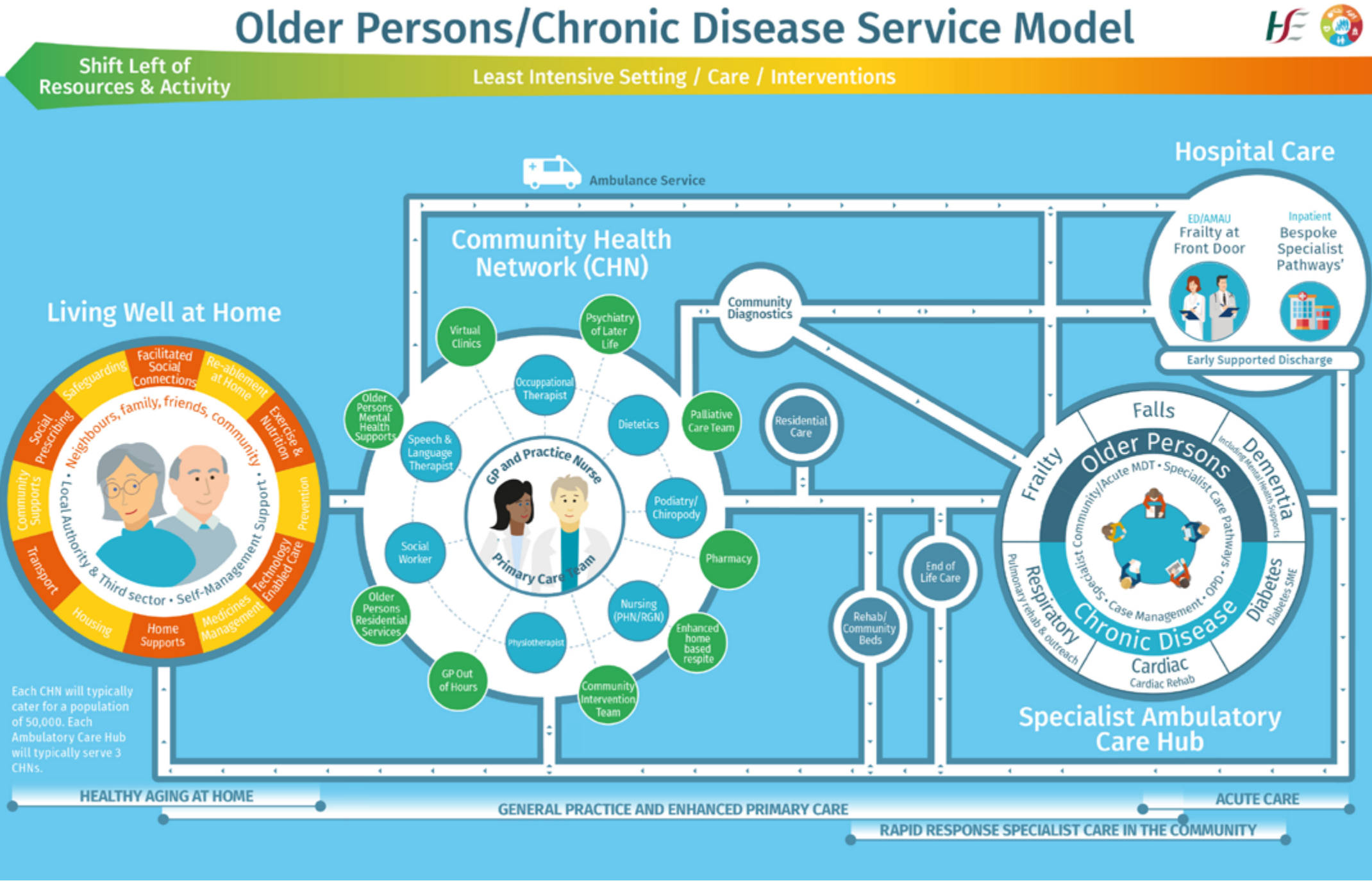
TABLE 3.2 CARE PROVIDED AT LEVEL 1
Prevention of Heart Failure
· General advice on maintenance of cardiovascular health. · In at-risk individuals (those with established cardiovascular risk factors but no evidence of HF currently) use of NP to refine risk prediction with on-going Level 1 Care for those deemed to be low risk (STOP HF[16] approach). · Higher risk by NP to be elevated to Level 2 for access to echocardiography and onward management as deemed necessary. · GPs will identify patients at higher risk of HF through the HSE Chronic Disease Management and Prevention Programmes where appropiate.
Diagnosis of Heart Failure
· Possible new case of HF automatically need ready access to HF diagnostics with NP and Echo if the NP is elevated (Level 2 care). · Normal NP will likely exclude HF and lead the GP down a different diagnostic pathway. · If clinical suspicion persists despite normal NP GP can access opinion using VC or standard outpatient review (level 2). · Abnormal NP & subsequent echo discussed by GP with Specialist either using VC or standard clinic.
Management of Stable Heart Failure
· Scheduled reviews for HF patients by GPs under the Chronic Disease Management Programme in General Practice 2020.[19] · Low risk patients (Appendix 6) can be managed in Level 1 care by GP led community services with access to the community Integrated Care CNS and community diagnostics. · Moderate/ high risk patients (Appendix 6) will need to be maintained at Level 2-4 care.
Management of Emerging Deterioration of Heart Failure
· Emerging deterioration can be handled at Level 1 if settled with initial intervention. · If does not settle or if there are high risk features (moderate/ high risk patient; development of new concerning feature such as paroxysmal nocturnal dyspnea, new onset atrial fibrillation for example) they will require specialist review by VC or standard outpatient review. · Access to community based palliative care services where appropriate.
Post Hospital Discharge (ceiling of care patients only)
Majority of this cohort will be maintained at level 3 for at least 3 months following discharge.

3.5.3 Heart Failure Care at Level 2: Community Specialist Ambulatory Care

The care provided at this level comprises GP care (Table 3.3), supplemented by specialist support encompassing cardiology opinion by eHealth strategies such as VC. This will be further complemented by support provided by a CNS, and access to diagnostics and specialist opinion by Telehealth.

A key element of the Sláintecare vision is service re-design. Six new RHA's will be established which will form the foundation for delivering care closer to home. These RHAs are further broken down into 96 CHNs, which provide a framework for the delivery of integrated care at the local level. CHNs are geographically-based units which serve an average population of 50,000 each. Specialist ambulatory care hubs for chronic disease are to be established, each serving approximately three CHNs or a population of approximately 150,000. Community specialist ambulatory care will provide further support to the GP to care for patients in the community through ready access to diagnostics, pulmonary and cardiac rehabilitation and diabetes structured patient education services which will be based in the ambulatory care hub in the community.[2]

Figure 3.3 Older Persons/ Chronic Disease Service Model[2]



Role of the Specialist Ambulatory Care Hub

- Each Specialist Ambulatory Care Hub will be linked to a local hospital. Some of the larger hospitals may be linked to a number of these hubs.
- An ambulatory care hub will support access to diagnostics, specialist services and specialist opinions in order to support early intervention and specialist care within the community.
- The hub will be a clinical site, outside of the hospital setting, and will 'house' the specialist chronic disease teams in the community.
- Some specialist acute outpatient services can also be delivered here.
- Cardiac Rehabilitation (CR) will be delivered in the specialist ambulatory care hub if considered clinically appropriate.
- Increased GP access to diagnostics and facilities will enable a greater level of care to be delivered in the community and reduce the need to refer patients to ED and OPD.

TABLE 3.3 ELEMENTS OF CARE AT LEVEL 2 – PRIMARY CARE WITH SPECIALIST SUPPORT

- Access to specialist diagnostic for HF care in the community, in particular Doppler echocardiography under specific case indications. These diagnostics ideally to be available in the community setting.
- Integrated Care CNS assistance to the GP for management of complex or new cases to facilitate access to diagnostics, specialist interpretation of diagnostics, titration of therapies where indicated under GP/ specialist advice, and arranging eHealth communication between the GP and specialist for specific cases.
- eHealth facilities for GP to access specialist opinion to aid new diagnosis, management of emerging deterioration in the community and case care where there may be a ceiling of care such as with patients in nursing homes.
- CR services for HF patients.
- Shared guidelines and care pathways for the prevention, diagnosis and management of HF in primary care (see Appendices).

3.5.4 Heart Failure Care at Level 3 – Acute Specialist Ambulatory Care

Specialist ambulatory care comprises care provided in Emergency Departments (EDs), Acute Medical Units (AMU's), Acute Medical Assessment Units (AMAUs) (Appendix 4.3 and Appendix 5) and HF specialist outpatient clinics, which can be provided within the specialist ambulatory care hub or hospital, and Outreach care.

TABLE 3.4 COMPONENTS OF HEART FAILURE CARE AT LEVEL 3

Patients requiring Level 3 care are:

- Those discharged from hospital following in-patient management of HF - this cohort to be entered into a physician-led 12 week post-discharge programme to reduce risk of readmission.
- High risk (Appendix 6) community patients no longer involved in the above programme will need to maintain regular contact with Level 3 services.
- Patients deteriorating in the community who demonstrate from the outset high risk features or who fail initial intervention by the GP.

In addition to the above specialist delivered services the following should also be available at Level 3:

- A referral system for GPs and Community teams for rapid access to a hospital facility on a 7 day basis for the emergency assessment and management of a patient with deteriorating HF, in order to avert admission.
- An IT system between primary and secondary care established to maintain a patient register, manage clinical care, communicate information and provide data for performance monitoring.

3.5.5 Heart Failure Care at Level 4 - Hospital Inpatient Specialist Care

Hospital based HF services are organized as part of an integrated services model, providing seamless care for patients between care in hospital and in the community. Each hospital can be categorised for HF services according to whether it is an admitting hospital for ADHF (model 3 and 4 hospital) or mainly providing out-patient services, rehabilitation and/ or palliative care (model 1 and 2 hospital). Hospital based care for HF should have the following components as set out in Table 3.5 below.

TABLE 3.5 COMPONENTS OF Heart Failure CARE AT LEVEL 4 – HOSPITAL INPATIENT SPECIALIST CARE

- A specialist team for in-patient and out-patient service for the diagnosis and management HF patients, unless local circumstances allow for amalgamation of outpatient units.
- HF services at admitting hospitals are organised on a 7 day basis, with out of hours service provided through the cardiology on-call system/ medical on-call system.
- Formal link and strategy with ED/AMAU/AMU to identify and manage primary presentations with ADHF.
- Defined in-hospital strategy to either take over care of HF presentations on admission, or provide ongoing consultative service to begin within 72 hours of presentation to ED with review by clinical lead or designate.
- NP Assessment should be available in ED or AMAU for initial assessment and subsequently at discharge to help determine risk status for readmission. For those in whom the suspicion of HF is supported by NP assessment Doppler echocardiography should be available within 24 hours to confirm or rule-out the diagnosis and if diagnosed as HF to confirm phenotype.
- Other investigations should be available as determined necessary by HF lead physician or designate such as angiography (either on site or readily available from linked hospital).
- HF patients will be reviewed and assessed as appropriate by members of the MDT.
- In hospital nurse-led education to begin once agreed by clinical lead and the patient is clinically well enough to receive it.
- Access to standardised self-care information.
- Formal discharge planning to include a treatment plan, high/ low risk stratification, assessment of patient self-care, confirmation of follow-up date by Acute CNS and transmission of information to GP and provision of outreach service if appropriate.
- Specialist HF interventions including ICD and Resynchronisation will be available in all model 4 hospitals and specific advanced HF services will be available at the Mater Hospital.
- The service will have a link with specialist palliative care for patients with ADHF.
- General hospital standards and protocols will be applied to all patients, such as Code of Practice for Discharge Planning (2014)[11] and HSE Standards & Recommended Practices for Healthcare Records Management (2011).[12]
- Defined clinic space for review of HF patients. Depending on the size of the service and the view of the local lead the outpatient service may be integrated into the standard outpatient services or to a defined HF clinic. The service should provide same day access where needed for patients with emerging deterioration.

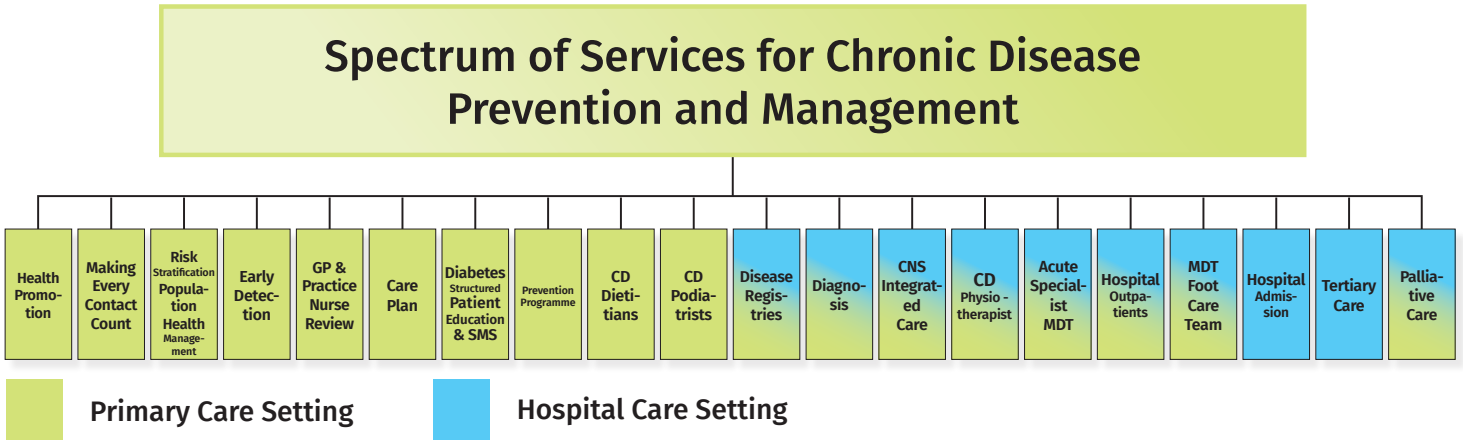
4 Management of Heart Failure

4.1 THE SPECTRUM OF CARE FOR HEART FAILURE MANAGEMENT

The optimal management of HF requires an integrated approach for all stages of disease and as patients move from stable to acute exacerbations and back to a stable condition the care provided will need to follow an integrated pathway which is clear and easy to navigate for both the patient and family/ carers and health care professionals (see Figure 4.1).

The MOC describes what care is required, who should provide it and where it should be provided for this chronic, complex illness with multiple systemic effects and comorbidities. The actual clinical management of the disease is described in clinical guidelines[1] referred to throughout this document with particular elements included as appendices.

Figure 4.1 Structure for the Detection, Assessment and Management of Heart Failure[2]



Spectrum of Care

- Prevention of HF (section 4.2)
- Early Diagnosis and Assessment (section 4.3)
- Management of Established HF (section 4.4)
  - Stable HF
  - Acute exacerbations of HF
  - Management of Advanced HF

4.2 PREVENTION OF HEART FAILURE

Strategies to target the prevention of HF and reduce the impact of the disease require effective action across the continuum of care. The key strategies include those aimed at the general population (primary prevention) and those targeting patients with established cardiovascular disease but no HF at present (secondary prevention) and those with established HF (tertiary prevention).

Healthy Ireland a Framework for Improved Health and Wellbeing[3] and *Healthy Ireland in the Health Services National Implementation Plan*[13] has provided a blue print on how prevention should be addressed. An essential element in addressing both primary and secondary prevention is engaging health professionals in prevention activities as part of their routine clinical consultations.

Primary prevention of HF as part of overall CVD prevention is vital to reverse the upward trend of people developing the disease. This will be addressed by various agencies and programmes in line with DOH cardiovascular policy. The HF programme will link with the ICP CD to support initiatives within and beyond the health sector to promote lifestyle changes and reduce the incidence of CVD, including MECC[7] (Appendix 2) and SMS[14] (Appendix 3).

The NHP will play a direct role in addressing prevention of HF in those at particularly high risk due to established CVD or with risk factors (as outlined below) which place them at high risk of HF. This will involve a close link with primary care services and addressing secondary prevention.

Idiopathic dilated cardiomyopathy (DCM) may have a genetic basis in 20-50% of cases, and therefore may have implications for relatives as well as the index patient. Enquiry as to whether first or second degree relatives have previously been diagnosed, or whether unexplained premature deaths have occurred in the family should form part of the initial diagnostic encounter. The co-existence of developmental delay, neuromuscular features or cardiac conduction delay also suggests a genetic cause, and may alter risk stratification tools. Consider referral to a Specialist Inherited Cardiac Conditions Service (see Appendix 9).

TABLE 4.1 PREVENTION AREAS TO BE TARGETED	
Lifestyle advice and education	For those with established disease, patients at risk and those with other chronic diseases.
Diagnosis and treatment of hypertension	Following diagnosis a chronic disease care plan is established in keeping with the Guidelines for the management of arterial hypertension 2018.[15] Pharmacist monitored medication compliance.
Targeting and monitoring of at-risk population in general practice	Cardiovascular risk assessment in keeping with the European Guidelines on CVD Prevention in Clinical Practice 2021[16] supplemented by the STOPHF Therapeutic Plan,[17] the HSE Integrated Care Programme for the Prevention and Management of Chronic Disease and the Chronic Disease Management Programme in General Practice 2020.[19]
Screening of relatives	Screening and follow up following diagnosis of idiopathic dilated cardiomyopathy (referral guidelines to be developed).
Links with other CVD related Clinical Programmes	Such as the National Clinical Programmes for Respiratory and Diabetes.
Provision of self-management education	Following the SMS Framework[14] and MECC[7].

4.2.1 Targeted Prevention Strategies

Given the dramatic rise in the incidence of HF some recent studies have focused on new ways to identify patients at risk of developing HF. It has been shown that even in patients with mildly elevated NP levels without HF that they are at higher risk of progressing to HF and having other major adverse cardiovascular events. Based on this, two studies have used NP's to identify those at highest risk of developing HF and other major cardiovascular events among those with cardiovascular risk factors or established CVD. The STOP HF study[17] was carried out in Ireland and the PONTIAC study in Austria.[18] By targeting care to this group with mildly elevated NP's they were able to reduce the rate of new onset HF and also hospital admissions for other major adverse cardiovascular events.

4.3 HEART FAILURE: EARLY DIAGNOSIS AND ASSESSMENT

4.3.1 Community Assessment and Referral

Diagnosing HF is based on a combination of history, physical examination, functional assessment, NPs and echocardiogram. The GP assesses patients who present with symptoms suggestive of a possible diagnosis of HF. Initial investigations including ECG and NP are undertaken, following the diagnostic algorithm (Appendix 4.1). Following initial investigations, the GP refers patients with suspected HF to a cardiologist according to the GP Referral Guidelines (Appendix 4.2). Ideally, all patients suspected of HF should be assessed by a cardiologist, or if not available by a consultant physician with training in cardiology where deemed appropriate:

- A referral pathway will be used by GPs (Appendix 4).
- Patients referred by their GP to be seen or discussed with a Cardiologist within 6 weeks of referral date.
- Cases may need referral to the ED or AMAU if marked symptoms (Appendix 4.3).

4.3.2 Specialist Assessment (New Diagnostic Clinic)

The HF service in model 3/ 4 hospitals should have capacity to provide a new diagnostic service on a weekly basis. The planned frequency of new diagnostic clinics will depend on the local population demand, the time required for each visit to process and assess each patient by the nurse and consultant. This most likely will be assimilated into the routine outpatient HF service.

There will be involvement of other members of hospital based MDT including referral to dietitian, physiotherapist and pharmacist for information and education. The hospital based CNS and community based CNS will liaise to co-ordinate follow up care.

Follow up is planned before the patient is discharged from the clinic. Patients diagnosed with HF by the Consultant are referred back to the GP for on-going management through the community HF service and in line with the ICP CD once investigations are complete and medications titrated to optimal stable medication doses. The aim of the diagnostic appointment is to undertake to provide care as efficiently as possible.

4.4 MANAGEMENT OF ESTABLISHED HEART FAILURE

4.4.1 Care Provision for Established Heart Failure

In the management of stable HF it is envisaged that care will be primarily delivered in Levels 1 and 2 of the proposed model with access when required to ambulatory care and/or specialist care (Levels 3 and 4).

Patients with stable HF require access to:

- A GP and a practice nurse.
- A specialist-led Level 3/ Level 4 service where required/indicated.
- A CNS (Integrated Care).
- Wider MDT services - integration and co-ordination between the CHN team (Level 1) and members of the broader MDT (Levels 2, 3 and 4) is essential to ensure a cohesive approach to the care of people with HF many of whom frequently have comorbidities.

Key components of all consultations should reflect the MECC Framework[7] (Appendix 2). Consultations should include discussions and interventions (as appropriate) on the following:

- Smoking cessation.
- Safe and effective exercise.
- CR training.
- An understanding of the treatment plan and the importance of medication adherence.
- The correct use of appropriate medications.
- Coping strategies for living with HF including preparation for end of life.
- Recognising and managing anxiety and depression.
- Early recognition of exacerbation signs and symptoms, and knowing when to make the decision to seek medical advice as appropriate.
- Nutrition screening, early detection of malnutrition and referral to a dietitian for targeted nutrition advice and monitoring of nutritional status.
- Assessing and recognising the palliative care needs as appropriate.
- Supports and resources available.

4.5 COMMUNITY BASED TREATMENT AND CARE AT LEVEL 1 AND LEVEL 2

4.5.1 General Practitioner Led care

Community care will be most effectively delivered by a GP leading a PCT with access to HSCP's in the PCT or wider CHN

- Patients diagnosed with HF by the Consultant who are stable are referred back to the community for ongoing GP-led care with outlined care plan from the cardiologist.
- Close clinical follow up is required by the primary care services led by the GP and supported by the practice nurse, CNS's and other members of the community team to ensure continued stability, adherence to self-care behaviour and medication and management of co-morbidities.
- Patients with HF should have a biannual structured review in general practice in line with the chronic disease management programme. An individual assessed to be 'high risk' should remain closely linked to the hospital or specialist based follow up until he/ she can be redefined as low risk.
- Self-care strategies will be in place to provide rehabilitation for patients to maximise return to work or other productive pursuits. Liaising with already established services would be of benefit in this regard.
- The HF CNS/ Integrated Care CNS will liaise with established community services. Newly diagnosed patients will be registered with the CNS to initiate the community liaison service, in order to provide ongoing lifestyle education and support for HF patients as required. The CNS will liaise with practices regarding education, new developments and individual patient advice.
- Adherence to treatment will be monitored by the GP practice and the community pharmacist.

The status of all HF patients undergoing active care will be regularly reviewed by specialist acute ambulatory care services (level 3), ideally at least annually. The method and approach to this review will vary depending on resources and efficiency of the links between primary and secondary care. The purpose of the review is to:

- Ensure clinical, biochemical, structural and electrical stability.
- Based on the above, the service will assess the need for alteration in therapy.
- The service will also address whether new advances in management of HF over the previous year apply to the patient.
- Revision class on education matters and medication can be provided (this component could be performed in community).

Shared care in the community will be organised by the GP in conjunction with the community and acute specialist team.

4.5.2 Prevent Hospitalisation

It is critical that the GPs and Cardiologists agree on the optimal strategy to deal with emerging clinical HF deterioration. They should plan to minimise the need for ED attendance or hospitalisation. This strategy includes:

- Same day response to patient where it needs to be.
- Access to hospital HF unit to manage clinical deterioration if required by GP.
- Patient self-monitoring and facility for self-referral is an important component.
- Telephone access to the HF nurse specialist for advice on weight changes etc. can help avoid an emergency hospital admission.
- Remote monitoring using new technologies may be considered for certain patients.
- Service for higher risk patients undergoing treatment for clinical deterioration should have a roll over to on call community and cardiology services at weekend and public holidays.
- GP out of hours service will play an important role in ensuring 24 hour access to GP and appropriate hospital referral.
- In certain circumstances Community Intervention Teams (CIT) may provide IV therapy for deteriorating HF in the home or community setting.

4.6 PATIENT EDUCATION SELF-MANAGEMENT AND SUPPORT

Patient education and self-care are essential components of the non-pharmacological of long-term management of HF and should include the following:

- Patient education initiated during hospital stay, helping patients and their families understand their diagnosis, disease management and care in dealing with a chronic illness.
- Education and training on self-care should also be provided on outpatient visits by a CNS.
- GPs, practice nurses and PHN's have an important role in continuing this education while reinforcing, supporting and encouraging self-care behaviours.
- CR programmes for patients with HF require an existing HF structured programme as outlined in the MOC.
- Patients attending general practice and CHN team have access to interventions for prevention of CVD, including lifestyle advice and education.
- Home care services, including education and advice; promotion of self-care and monitoring treatment; and provision of essential enabling equipment to facilitate independence in activities of daily living (see Appendix 10).
- Multidisciplinary care for elderly patients with HF in long-term residential care and access to HF education for staff working in these areas should be provided.
- Patient information on self-care for HF should be available in written form and online.
- Access to psychological support and social worker should be available via the hospital MDT.

All health care providers will play an important role in continued education of patients and their families in self-care behaviours. The premise of patient education is to help patients manage their disease, whereas self-care is a process which requires the patient to become involved in maintaining and managing their symptoms (Table 4.2). Self-care maintenance refers to healthy lifestyle choices and treatment adherence behaviours (Appendix 3).

TABLE 4.2 SELF-CARE MAINTENANCE FOR HEART FAILURE	
Lifestyle Choices	**Treatment Adherence Behaviour**
• Exercise • Smoking cessation • Adhering to alcohol advice • Immunisation • Avoid obesity	• Daily weight monitoring • Monitory Heart Failure symptoms • Following recommended dietary advice • Taking prescribed medication

Self-care management involves engaging in cognitive process and actions that include recognising worsening HF symptoms and initiating self-care strategies. Inherent in these processes are the patient's ability to make decisions as they move through their illness. It is important that patients are given education so that they can develop the skills and confidence needed. A framework for self-management support for those living with chronic conditions has been developed.[14] Many factors influence patients' ability to engage in self-care and these must be considered by health care professionals in order to support the patient as they master the ability to engage fully in self-care. A patient centred personalized care plan has been agreed as part of the Chronic Disease Management Programme in General Practice (2020).[19]

4.7 STRUCTURED REVIEW

4.7.1 Routine Review

It is important that patients are reviewed on a regular basis to determine if they are stable (Appendix 4.5), are on appropriate medications and to monitor for drug side effects and manage co-morbid illness. The Chronic Disease Management Programme in General Practice (2020)[19] provides two such reviews annually. An individual assessed to be 'high risk' should remain closely linked to the hospital or specialist based follow up in the community until he/she can be redefined as low risk.

4.7.2 Early Post-discharge Follow up Care

It is well established that the first three months post discharge represents the major period of vulnerability for recurrent readmission. Beyond this time point many individuals will be cared for entirely in the community with hospital intervention only at times of clinical deterioration or at Annual Review. There should be an agreed plan of follow up care following discharge from hospital by the Cardiologist with GP, with roles defined dependent on risk profile of patient. This plan should include ready access to specialist advice through the HF clinic or VC and CNS.

Some of the early post discharge care of low-risk patients can be transferred into the community as hospital/community HF services are developed in primary care. Maintenance of well-being will be enhanced by initiating access during the post-discharge phase to the relevant HSCPs, including dietitians, for self-management.

4.8 CARDIAC REHABILITATION

Cardiac Rehabilitation (CR) with an exercise component is proven to reduce cardiovascular mortality and hospital readmission as well as improve overall quality of life. The NICE guidelines (2018)[20] states the people with HF should be offered a personalised, exercise-based CR 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 in specialist ambulatory care hubs or in the hospital) that is easily accessible for the person.
- should include a psychological and educational component.
- may be incorporated within an existing CR programme.
- should be accompanied by information about support available from healthcare professionals when the person is doing the programme.

All hospitals running rehabilitation programmes for patients with HF require an existing HF structured programme as outlined in this MOC document. This in essence is the ability of health professionals to respond to symptom deterioration and episodes of decompensation under the guidance of the clinical lead and specialist HF services.

4.9 MANAGEMENT OF ACUTE EXACERBATIONS OF HEART FAILURE

4.9.1 Management of Acute Exacerbations of Heart Failure in Level 1 and Level 2

Patients may present with ADHF to their GP or out of hours service. Patients may be referred to the Chronic Disease Ambulatory Care Hub, ED, AMAU or AMU or local HF unit for same day review depending on local policies. For patients without concerning features the GP may decide to increase the diuretic dose in the community and assess response. Access to a community HF CNS/ Integrated Care CNS for CVD is vital for this service. The use of the VC may also be of benefit, particularly for those patients where there is a ceiling of care and hospital admission is not deemed appropriate. CIT's may also provide home intravenous diuretic services.

4.9.2 Presentation to Emergency Department/ Acute Medical Assessment Unit/ Acute Medical Unit (Level 3)

On presentation, patients will be triaged and managed according to the Algorithm for ADHF Presentation to ED/AMAU (Appendix 4.3). Those with a confirmed diagnosis of ADHF will either be admitted or if deemed appropriate managed in the ED /AMAU with discharge for immediate follow up in the outpatient HF services (ideally within 24-72 hours).

4.9.3 In-Patient Care (Level 4)

It is important that all patients admitted with ADHF are managed by a cardiologist-led service or if not available by a team led by a consultant physician with specialist training in cardiology or with access to sub-specialty advice.

All admitted patients with ADHF will be reviewed by cardiology / HF lead physician or designate within 72 hours. If there is agreement on diagnosis, then the HF lead physician should arrange to take over management or assume a day-to-day consultative role. This will include the following:

- Advice and clarification on treatment and management plan.
- Request HSCP and specialist nurse review.
- Assessment of response on day-to-day basis (by HF lead physician or designate).
- Risk assessment at discharge to determine type of follow up.
- Provision of outreach service if appropriate.

4.10 MANAGEMENT OF COMORBIDITIES IN HEART FAILURE

Comorbidities are common in patients with HF and add to the complexity of managing such patients. Clinicians looking after patients with HF need to be alert to the presence of such comorbidities and assess and investigate them when appropriate. Clear communication between the HF team (community and hospital based components) and other teams managing comorbidities is essential. Issues such as frailty which are common in the frequently older population with HF also need to be addressed. Comprehensive advice and management of these common abilities is beyond the scope of this MOC but relatively simple interventions (Figure 4.2) can lead to improved quality-of-life and prognosis in patients with HF.[6]

Figure 4.2 Common Co-morbidities in Heart Failure and treatment therapies

4.11 ADVANCED HEART FAILURE SERVICES

Advanced HF services are a critical component of the HF care delivery structure. While only required for a small fraction of the HF population, their role is important in two domains; to be available at all times to take over the care of critically ill patients potentially requiring heart transplantation or other support measures, and secondly to be in ongoing contact with HF centres nationally to be aware of patients who might require a more elective assessment of the role of advanced therapies. To this end the centre for Advanced Heart Failure Care at the Mater Misericordiae University Hospital needs to be maintained at appropriate staffing and budget levels based on international standards to allow it perform the duties outlined above.

4.12 CARE AND SUPPORT OF PATIENTS WITH ADVANCED HEART FAILURE

HF is a chronic progressive incurable disease. As such, many patients will develop physical, psychosocial or spiritual distress related to their illness and experience reduced quality of life. Palliative care needs may arise at any point in an individual's illness journey, but they often become more severe and burdensome as the disease advances. The majority of patients die with rather than from HF. It is important to consider end of life care and HF symptoms can be troublesome and require management.

Palliative care is care that improves the quality of life of patients and their families who are facing the problems associated with life-limiting or life-threatening illness. Palliative care prevents and relieves suffering by means of early identification, impeccable assessment and treatment of pain and other physical, psychosocial and spiritual problems. Palliative care is best understood as both a set of principles that underpin an approach to care, and as a type of service that is provided. In Ireland, palliative care services are organised into specialist and non-specialist services that operate in partnership as part of an integrated network of providers.[21] Patients with HF should be eligible for both non specialist and specialist palliative care services and supports in the community and hospitals. Reflecting the current scope and practice of palliative care, palliative care is not dependent on prognosis and can be delivered at the same time as curative treatment.

NATIONAL ELIGIBILITY CRITERIA FOR PALLIATIVE CARE[21]
Patients with both: · A life-limiting condition and · Current or anticipated complexities relating to symptom control, end of life care-planning or other physical, psychosocial or spiritual needs that cannot reasonably be managed by the current care provider(s).

Patients in whom to consider end of life care:

- Progressive functional decline (mental and physical) and dependence in most activities of daily living.
- Severe HF symptoms with poor quality of life despite optimal therapy and not a candidate for advanced heart failure interventions.
- Frequent admissions to hospital despite optimal treatment.
- Cardiac cachexia.
- Clinically judged to be close to end of life.

Specific therapies and actions may provide palliation of symptoms and improve quality of life but have a limited evidence base.

5 Governance, Performance Review and Audit

5.1 HEART FAILURE SERVICE GOVERNANCE IN LEVEL 1 AND LEVEL 2

GP's will be supported to provide care in the community through the development of the Community Healthcare Networks (CHNs) and specialist ambulatory care hubs. CHNs will see a coordinated multidisciplinary approach to care provision, providing better outcomes for people requiring services and supports both within and across networks. GP leads will be appointed to each CHN Management Team and planning meetings involving stakeholders will be held which will serve as a forum to review community needs for diseases such as HF.

The specialist ambulatory care hub will each serve approximately three CHNs (or a population of approx. 150,000 people). Each hub will be linked to a local hospital and will support access to diagnostics, specialist services (including Cardiologist) and specialist clinics in order to support early intervention and specialist care within the community. The clinical governance of patients remains with their GP.

Governance in the Specialist Ambulatory Care Hubs

At local CHO level there should be a Chronic Disease Integrated Care Local Governance Group reflecting key managerial and clinical stakeholders across the hospital, ambulatory care hub and local community service setting. A local working group for cardiovascular disease should report to this group, reflecting appropriate clinical membership, patient representation and local management.[10]

The function of the Community Specialist Team operating in the hub is to care for people with chronic disease in the community. They provide services such as specialist nursing and structured patient education, to patients on referral from their GP.[10]

Integrated Care Consultants will sit on the Local Integrated Care Governance Group, to ensure good integration between hospital and community services. The Integrated Care Consultant will have a specific role to support clinical service design, implementation and clinical governance of the hub.[10]

Professional governance for each disciplinary group in the hub will be through their existing community or acute clinical line managers.[10]

The Operational Governance of the ambulatory care hub is under the Chief Officer of the CHO, via the head of Primary Care. The Head of Primary Care is the Chair of the Local Chronic Disease Governance Group. The Operational Lead for Integrated Care reports to the Head of Primary Care in each CHO. The Operational Lead will also be tasked with overseeing the operational function of the Local Governance Group (LGG) for Chronic Disease and will ensure an interdisciplinary approach, whilst also monitoring case load and will have a reporting function to the Primary Care Service Manager in the Community.[10]

Cardiac rehabilitation services provided in the hub will be under the clinical governance of the local consultant cardiologist. Each hospital associated with the hub will nominate a relevant consultant to oversee these services and integrate the hospital and community delivery of their rehabilitation service.[10]

5.2 HEART FAILURE SERVICE GOVERNANCE IN LEVEL 3 AND LEVEL 4

The HF Lead Physician in each hospital will have delegated authority and responsibility for the management of the HF programme and associated in-patient and out-patient services. The HF Lead Physician will Chair a local HF Clinical Governance Group (with multidisciplinary membership) and represent the hospital on the LIGG.

Acute Specialist teams for cardiology will be resourced to fill critical gaps, to allow them to support ambulatory care in association with the community specialist teams in the hubs. Patients referred by their GP to acute specialist services will be under the clinical governance of the relevant consultant for the acute services.[10]

5.3 PERFORMANCE MONITORING AND REVIEW PROCESSES

Performance monitoring and review processes are an essential and integral aspect of the HF programme in hospitals and in primary care. Each hospital with a HF programme will be required to collect and report data for national key performance indicators (KPIs).

The HF Governance Group will review performance as part of its meetings.

For all patients admitted with ADHF, datasets should be completed at time of discharge and 3-month follow up visit, and in primary care at 6-weeks post discharge. Hospital data collection forms and patient information sheet are in Appendix 7. The dataset will complement data being collected through existing HIPE and Casemix processes. As part of the Chronic Disease Management Programme in general practice (2020)[19], GP's will return a standard clinical data set to a clinical data repository.[21]

The datasets will be collected locally. Reports on the anonymised data, compliant with GDPR requirements, will be collated (national reporting processes/ mechanisms to be agreed).

A small set of KPIs will be used at national level to measure overall performance of the programme.

National Heart Programme Heart Failure Key Performance Indicators
· Rate of re-admission within 3 months following discharge. · Median length of stay for all patients admitted with principal diagnosis of HF. · Percentage of patients who are seen by the HF service.

5.4 MONITORING HEART FAILURE SERVICES IN LEVEL 1 AND LEVEL 2 PRIMARY CARE

- Indicators will be developed in line with the ICP CD for the service
- Monitoring of access to services such as natriuretic peptides, echocardiography and heart failure clinical nurse specialists in the community will also be undertaken

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7 Acknowledgements and Membership

ACKNOWLEDGEMENTS AND MEMBERSHIP

The MOC for Heart Failure was developed in consultation with all stakeholders. A Heart Failure Clinical Advisory Group (CAG) comprised of cardiologists was established by Royal College of Physicians of Ireland to provide technical oversight. In addition to the CAG, the MOC was reviewed by the NCAGL for Chronic Disease. This final document incorporates the feedback from all of these groups as well as members of the new National Heart Programme CAG. We would like to thank all for their time and input to developing this document.

We would like to thank Dr Orlaith O'Reilly, the HSE's National Clinical Advisor and Group Lead for Chronic Disease, for her direction and guidance.

Working Group Membership

Prof Ken McDonald	Clinical Lead National Heart Programme/ Consultant Cardiologist
Dr Joe Gallagher	ICGP HSE Primary Care Lead for Integrated Care Programmes (Cardiovascular Disease)
Ms Regina Black	Programme Manager National Heart Programme
Ms Norma Caples	Lead Nurse/ Clinical Nurse Specialist Heart Failure
Dr Sarah O'Brien	Specialist in Public Health Medicine
Dr Claire Buckley	Specialist in Public Health Medicine

NCP Heart Failure Clinical Advisory Group Membership*

Dr Caroline Daly	Chair/ Consultant Cardiologist, St James's Hospital
Prof Niall Mahon	Consultant Cardiologist, Mater Misericordiae Hospital
Prof James O'Neill	Consultant Cardiologist, Connolly Hospital, Blanchardstown and Mater Misericordiae University Hospital
Prof Vincent Maher	Consultant Cardiologist, Tallaght University Hospital
Dr Niamh Murphy	Consultant Cardiologist, Our Lady of Lourdes Hospital, Drogheda

Prof Brendan McAdam	Consultant Cardiologist, Beaumont Hospital
Dr Sean Fleming	Consultant Cardiologist, Midlands Regional Hospital, Porlaoise
Prof Carl Vaughan	Consultant Cardiologist, Mercy University/ Cork University Hospital
Prof Pat Nash	Consultant Cardiologist, University Hospital Galway
Dr Ross Murphy	Consultant Cardiologist, St James's Hospital
Dr Emer Joyce	Consultant Cardiologist, Mater Misericordiae Hospital
Dr Matthew Barrett	Consultant Cardiologist, St Vincent's University Hospital
Dr Carmel Halley	Consultant Cardiologist, St Vincent's University Hospital
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Dr Deirdre Ward	Consultant Cardiologist, Tallaght University Hospital/ NHP

*The NCP HF was subsumed into the new National Heart Programme in 2020.

8 Appendices

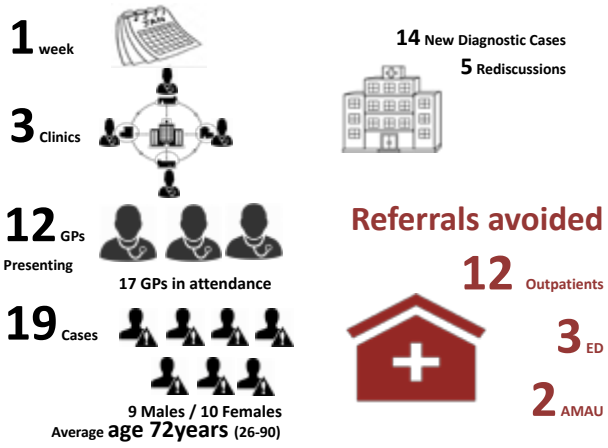
APPENDIX 1 HEART FAILURE VIRTUAL CONSULTATION SERVICE

The Heart Failure Virtual Consultation Service (HFVC) provides weekly opportunities for GPs to discuss HF patients on whom they wish to have specialist opinion from the Consultant Cardiologist. These are patients that the GP would otherwise refer to the OPD or to ED/ AMAU for admission. Patients have also been spared the requirement to travel. The HFVC is attended by the Consultant Cardiologist and a group of GPs. The GPs present the patient's case at the Virtual Clinic instead of making the referral to OPD/ED /AMAU. GP time is required to prepare the case and to attend the clinic, which takes approximately 1 hour. In addition other GPs are encouraged to join the video group presentation for learning purposes.

PROCESS: GP's refer patient cases to a virtual online clinic with a Specialist Consultant. A number of GP's can join at any one time. The data from the referral is anonymised and transferred to a presentation template. Each case is discussed online and a consensus approach reached for the future management of each patient.

This *innovative* approach facilitates real-time, on-line specialist support to GP's and prompt access to diagnostics. With the addition of IC CNS's (providing specialist HF reviews in local GP practices) GP's are enabled to safely manage an at-risk population in the community.

HFVC IN PRACTICE



SNAPSHOT OF A WEEK OF THE HFVC

APPENDIX 2 MAKING EVERY CONTACT COUNT (MECC)

The Making Every Contact Count (MECC)[7] programme is a key action in supporting the implementation of *Healthy Ireland, a National Framework for Improved Health and Wellbeing.*[1] MECC is about health professionals using their routine consultations to empower and support people to make healthier choices to achieve positive long-term behaviour change.

The lifestyle risk factors which are the focus of attention in the MECC Programme include tobacco, alcohol, physical activity and obesity. The model for MECC is presented as a pyramid with each level representing an intervention of increasing intensity with the low intensity interventions at the bottom of the pyramid and the specialised services at the top. Implementing the *MECC* approach seeks to begin the process at the basic level of **brief advice and brief intervention**. In practice this will mean that all health professionals and healthcare assistants will be trained to a level that enables them to conduct a brief intervention with their patients when appropriate. It is envisaged that **extended brief intervention** will be conducted by health professionals with greater capacity to carry out this more lengthy intervention, because of their specialist role or due to the specific service that they work in. This intervention should be delivered to patients requiring more intensive support in their behaviour change efforts and/or who may be self-managing an existing chronic disease such as HF.

The **specialist services** are delivered by practitioners who use specialised or advanced approaches to support patients to change behaviour. These services include smoking cessation and dietetic services, along with services delivered by staff with in-depth counselling skills in the wider arena of supporting people to change.

To implement MECC within all sectors of the health service, actions need to happen in four key areas

- **Organisational level** which will involve a culture and environment that supports continuous health improvement and has systems in place to embed MECC in all services and divisions.
- **Staff engagement**, learning, training and skills development is crucial to the integration of MECC within the health service.
- **Patient empowerment** is essential if they are to engage with their health professional about making a behaviour change.
- **Partnership working** with key external affiliates such as higher educational institutes; professional associations and health professionals not employed within the HSE is central to the success of MECC.

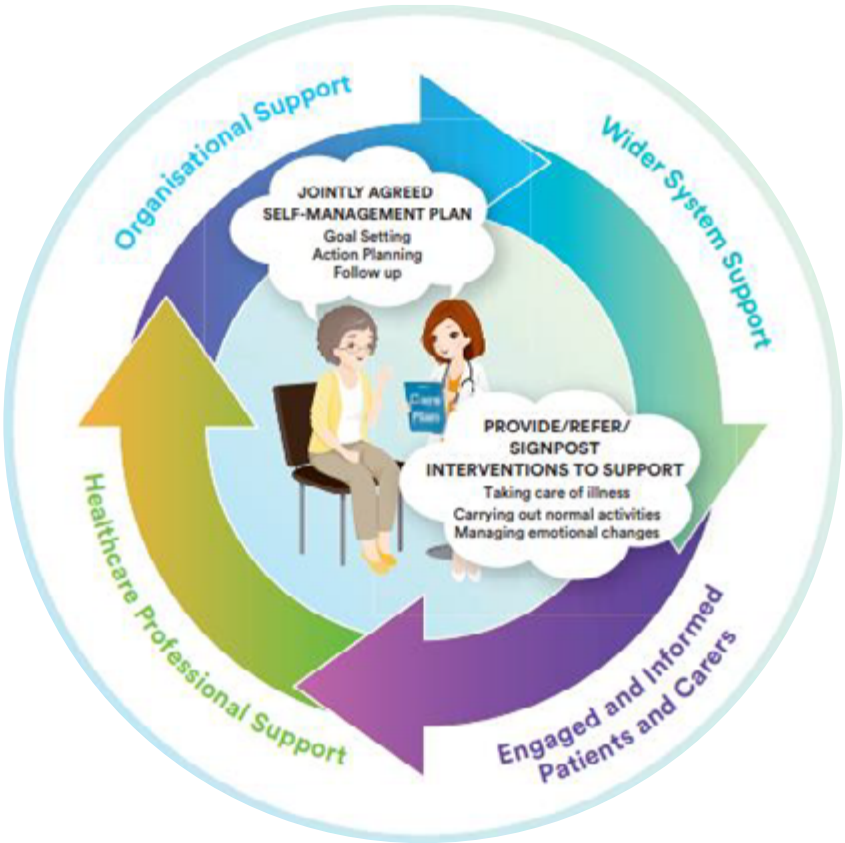
APPENDIX 3 SELF MANAGEMENT SUPPORT (SMS)

Self-management support is defined as the systematic provision of education and supportive interventions, to increase patients' skills and confidence in managing their health problems, including regular assessment of progress and problems, goal setting, and problem-solving support. (Adapted from Institute of Medicine, 2003).

Self-management support is about helping people to learn more about their condition, to set goals, problem solve and make plans to live a healthier life. It is not a one off but is an on-going part of the care of a long-term health condition. 'Living Well with a Chronic Condition: Framework for Self-management Support (2017)[13] was developed under the leadership of Dr. Orlaith O'Reilly, the National Clinical Advisor and Programme Group Lead, Chronic Disease. This framework provides an overview of the need for Self-management Support. It sets out how the HSE, working in partnership with key stakeholders, intends to implement Self-management support for four major chronic conditions; COPD, Asthma, Diabetes and Cardiovascular Disease.

https://www.hse.ie/eng/health/hl/selfmanagement/hse-self-management-support-final-document1.pdf

Care planning to support self-management:



Source: Living Well with a Chronic Condition – Framework for Self-management Support
https://www.hse.ie/eng/health/hl/selfmanagement/hse-self-management-support-final-document1.pdf

Your heart failure self-care plan
The traffic light system

HeartBeat Trust

- Weight stable in the morning
- No new or worsening breathlessness
- No new swelling. Feet and legs look normal for you
- Physical activity is normal for you

Excellent – keep up the good work!

- Sudden weight gain (of 2kg (4-5 lbs) over 2 days without symptom change
- New or worsening breathlessness
- You need more pillows to sleep comfortably because you are breathless
- Troublesome cough
- Increased swelling in legs and ankles
- Abdominal swelling
- Worsening appetite
- New or worsening dizziness

Pay attention – use caution!

Please contact your heart failure clinic or GP

- **You may need to see your doctor**
- **You may need a change in medications**

- Breathlessness waking you at night
- Breathlessness at rest
- Sudden weight gain (of 2kg (4-5 lbs) over 2 days) with worsening of symptoms
- Coughing frothy sputum
- Loss of consciousness or collapse (call an ambulance)

Medical alert – warning!

WARNING! You need to be assessed today.

Please contact your heart failure clinic or GP

Quick guide to living with heart failure

Heart failure develops when the heart weakens and becomes less efficient and cannot pump blood around your body as well as it should. You can live well with heart failure once you know and understand the condition and its treatment. This guide will help you notice and report any changes in your symptoms. By working closely with your healthcare team, you can take control of your condition, avoid unnecessary hospital visits and live an active life.

Managing your signs and symptoms
Consult the traffic lights system overleaf

Every day

- When you get up in the morning, weigh yourself after going to the toilet. Record your weight in your note-book or diary and compare it to yesterday's weight. A sudden weight gain of 2kg/4-5lbs over 2 days is an early sign of fluid retention.
- Check your breathing is the same as normal.
- Check for swelling in your feet, ankles, legs and tummy.
- Take your medicines as directed.

Exercise

Ideally you should exercise for 150 minutes every week in sessions of 10 minutes or more. Take it easy at the beginning and gradually increase what you are doing.

For tips and advice on physical activity, visit:
www.getirelandactive.ie, www.getirelandwalking.ie
www.iscp.ie

Alcohol

Alcohol is not forbidden if you have heart failure. However, the amount that each patient can drink will vary depending on each person's individual circumstances. Therefore, your nurse or doctor will discuss the amount of alcohol that is safe for you to drink.

Smoking

If you are a smoker, quitting is one of the best things you can do for your health. Smoking makes your heart work harder. It reduces the amount of oxygen that your blood can carry and narrows the walls of your blood vessels.

Please speak to your nurse, doctor or pharmacist about quitting or call the National Smokers Quit line
1800 201 203 or log onto www.quit.ie

Managing your medicines

- It is very important to take your medicines at the right time and in the way your doctor has told you.
- Never stop taking your medicines without talking to your doctor first.
- If you have trouble remembering to take your tablets, try the following tips:
  - Take your medicines at the same time every day.
  - Use special pill boxes that help you keep track of your medicines.
  - Ask your pharmacist to organise medicines into daily or weekly blister packs.
  - Keep a 'medicine calendar' and make a note every time you take your dose.
  - Ask people close to you to remind you.
  - Put a sticker or reminder note on your medicine cabinet or fridge.

Diet

- Avoid too much salt in your diet. Salt can make your body hold on to water (fluid retention), worsening your heart failure symptoms.
- If you are overweight, your heart has to work harder to pump blood around your body. Losing weight may help reduce your symptoms of heart failure as well as reduce the risk of other health complications such as diabetes.

If you would like healthy eating advice, ask your dietitian, doctor or nurse or log on to
www.safefood.eu/Healthy-Eating

Get vaccinated

- Heart failure patients are strongly advised to get the annual flu vaccine and the pneumococcal vaccination from your GP.

HeartBeat Trust

To access online educational resources for heart failure, please log on to www.heartbeattrust.ie

Email: hello@heartbeattrust.ie
Registered charity: CHY 15938

Supported by
NOVARTIS

APPENDIX 4 CARE ALGORITHMS

Appendix 4.1 Clinical Care Pathway – Suspected Non Acute Onset

New Diagnosis

Assessment of Probability

History
- History of Ischaemic Heart Disease
- History of Hypertension or Diabetes
- Exposure to Cardiotoxic Drugs/Radiation
- Use of Diuretics
- Orthopnoea/Paroxysmal Nocturnal Dyspnoea
- Known significant Valvular Disease

Physical Examination
- Pulmonary Crepitations
- Bilateral Ankle Oedema
- Heart Murmur
- Elevated Jugular Venous Pressure
- Displaced Apex Beat

ECG
- Any abnormality

If no access to Natriuretic Peptide Testing or delay in accessing Echocardiography and a high index of suspicion of heart failure consider a trial of treatment with loop Diuretic & Optimization of Cardiovascular risk factors while awaiting diagnostics.

NTproBNP >2000pg/ml	NTproBNP >400pg/ml	NTproBNP <400pg/ml
Urgent Echocardiogram & Specialist Review	Echocardiogram & Specialist Review	HF unlikely* consider other causes Refer if persistent concern about heart failure

* At a NT-proBNP threshold of 125 pg/ml 94% of patients who were diagnosed with heart failure were identified but 51% of the patients referred did not have heart failure.

At a NT-proBNP threshold of 400 pg/ml 77% of heart failure patients were identified and only 8.5% of the patients did not have heart failure.

Click HERE for full REFER Study

Some causes of elevated NTproBNP
- Heart Failure
- Chronic kidney disease
- Atrial fibrillation
- Ischaemic heart disease
- Valvular heart disease
- Sepsis

Some causes of reduced NTproBNP
- Obesity
- ACE inhibitors/ARB
- Diuretics

Source: National Heart Programme

Appendix 4.2 Care pathway when Heart Failure Confirmed

Management of Stable Heart Failure

Diagnosis of Heart Failure Confirmed

Treatment of underlying cause of Heart Failure
Self Care Education
Diuretics to treat congestion

Ejection fraction < 40%

Heart Failure with reduced ejection fraction (HFrEF)

ACE Inhibitor (or ARB if ACEi not tolerated)*
Beta Blocker
Titrate to optimal dose

EF < 35% & symptoms

Add MRA and Titrate to optimal dose

EF < 35% & symptoms

Consider other specialist treatments
e.g. Device Therapies, ARNI, Ivabridine

Ejection fraction 40-49%

Heart Failure with mid range ejection fraction (HFmrEF)

Ejection fraction > 50%

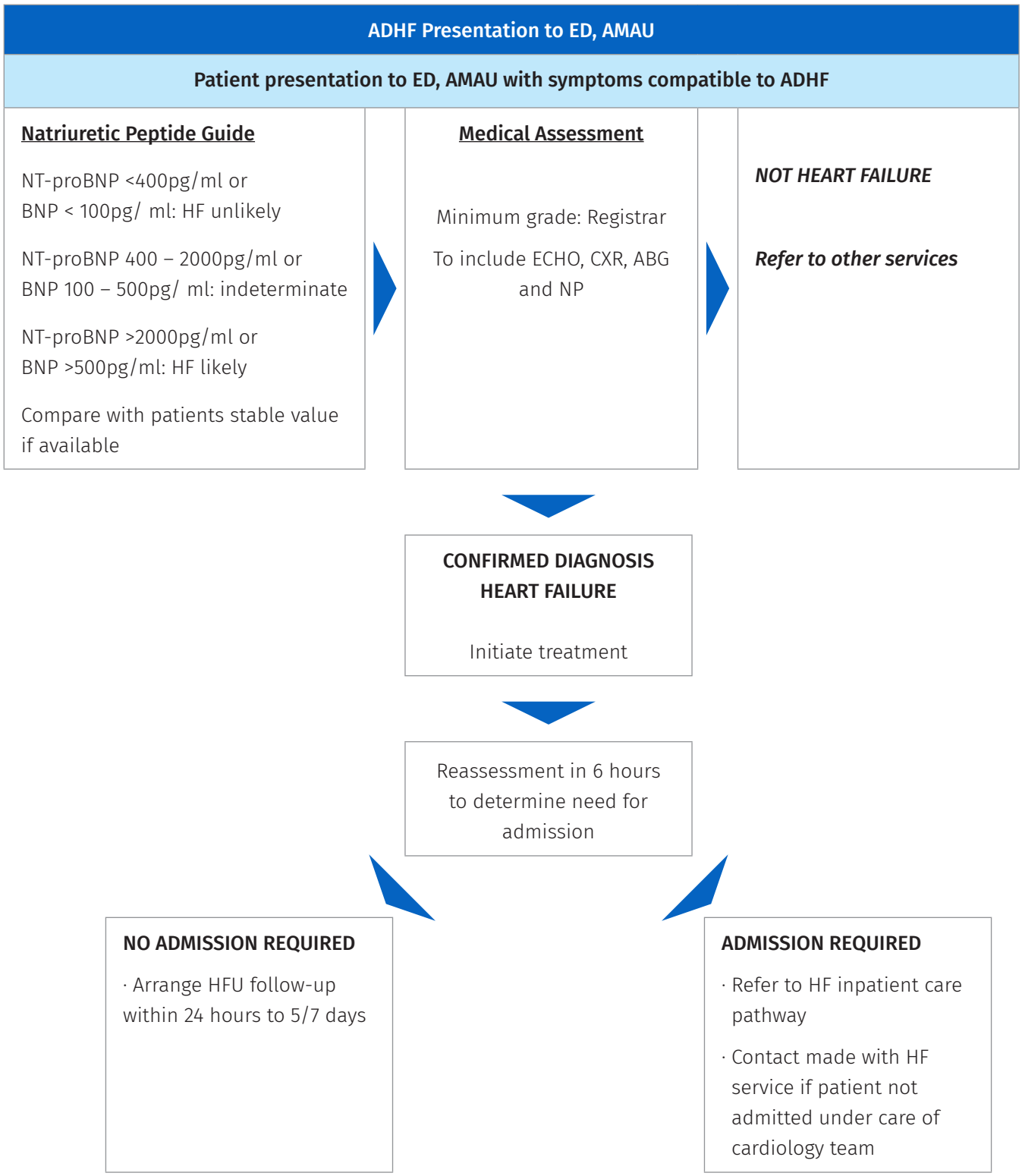
Heart Failure with preserved ejection fraction (HFpEF)

No treatment has yet been shown, convincingly, to reduce morbidity or mortality in patients with HFpEF or HFmrEF. However treatment of underlying morbidities such as Hypertension, Diabetes and Atrial Fibrillation is important and as such most patients will be on medications such as ACEi, ARB and Beta Blockers for these conditions.

* Initiation of Sacubitril / Valsartan rather than an ACE Inhibitor or an ARB may be considered for patients hospitalised with heart failure.

Source: National Heart Programme

Appendix 4.3 Care pathway ADHF Presentation to ED, AMAU



Appendix 4.4 Care pathway for In Hospital Management of Heart Failure

In hospital Management of Heart Failure inpatient

ADHF Patient Admitted through ED/ AMAU

Patient Reviewed by admitting consultant within 24 hours

De Novo Diagnosis of HF

Determine cause:
· Echocardiography
· Angiography
· Other tests as indicated

Recurrent Admission

Determine cause:
· Infection
· Arrhythmia
· Myocardial Ischaemia
· Compliance with Rx
· Other

Treat cause of HF and precipitant of admission

Specialist Involvement

(in case of non-cardiology admission to occur within 48 hours)
· Confirm diagnosis
· Define investigative and Mx plan
· Echocardiography within 24 hours of admission
· Daily clinical assessment (by specialist or designate)
· Daily review of U/E
· Coordinate involvement by HSCP

Specialist Nurse

Education of patient and family members (minimum of 3 one hour sessions)

Allied Health Care

Professionals to educate in matters related to:
1. Salt restriction
2. Compliance with meds
3. Post discharge activity
4. Management of psychological & social matters (in liaison with nurse specialist)

Discharge Planning

Consultant & Nurse Specialist
· Clinical stability criteria
· Medication review
· Review weight management
· Review contact numbers
· Risk status determined by Consultant
· Next appointment date
· Arrange all required community services e.g. Nursing, OT, Physio, HSCP's and GP

Appendix 4.5 Care Pathway for Post Discharge Management of Heart Failure

Post Discharge Management of Heart Failure

Discharge Planning
Definition of Low Risk Versus High Risk

Low Risk: D/C to Three Month Period

- Daily Self Care
- Nurse Phone Call at 3 – 5 days
- Clinic Visit at 2 weeks – medical review
- 6 week nurse visit (clinic or home)
- Reviewed by Dietician within 12 weeks
- 12 week clinic visit; medical review (see 12 week visit box)
- Weekly phone calls from nurse on all non clinic weeks

High Risk; D/C to Three Month Period

- Daily self care
- Consultant/ Designate review within 72 hours
- Nurse call at week 1
- Reviewed by Dietician as a priority
- Consultant/ Designate review at 2 weeks
- GP visit +/- Consultant/Designate visit at 6 weeks
- Patient listed as a priority for Rehab & Exercise programme
- Consultant/ Designate visit at 12 weeks
- Weekly nurse calls on non clinic weeks

12 week visit

Reassessment of Risk Status

Completion of 12 week Care Sheet

Low Risk

- D/C to GP led community care with treatment plan
- Review by dietician
- Continuing rehabilitation and exercise programme
- Plan for Annual Review

High Risk

- Continuing care as determined by consultant lead
- Continuing review by dietician and other therapists

APPENDIX 5 HOSPITAL CARE BUNDLES

Please Note: below are sample care bundles for adaptation locally.

Acute Management of Heart Failure in ED, AMAU		
Patient presents to ED/AMAU following G.P. / Self Referral		
Patient assessed by ED/ AMU Clinician and appropriate investigations ordered **LABS: NT-proBNP/ BNP Troponin CXR ECG** **(other tests as indicated)**		
Actions	**Time**	**Signed off by/ Date and Time**
Date and Time of Admission ____/____/____	____:____	
Diagnosis ☐ Review Rotuine Labs, NP, Tpn ☐ Review CXR, ECG	Within 1 hr of ED Presentation	
<u>Treatment</u> **Administer i/v diuretic** ☐ i/v 20-40mg if no prior use ☐ i/v stat 80mg if on chronic diuretic or severe fluid overload ☐ Use low dose thiazide if no response given 30 mins before loop	Within 30mins Of Diagnosis	
Administer O2 to achieve Sat>90% ☐ Maintain O2 sat > 95% ☐ Use NIV if not achieving with Supplemental O2 ☐ Suboptimal Response/ tiring consider Ventilation-may require transfer to Level III / IV	Within 1 hour	
Assess need to escalate Rx	Within 2 hours	
Admit Y /N	Within 6 hours	
Signed by Physician **……** **DATE:……**		

In hospital Management of Heart Failure patient		
Actions	**Time**	**Signed off by/ date and time**
Date and Time of Admission ____/____/____	____:____	
Tests ☐ Echocardiography	Within 24 hours	
Medical ☐ Specialist Heart Failure Review	Within 48 hours of admission	
Treatment ☐ ACEI /ARB (if indicated)	Within 72 hours	
☐ Beta Blockade if indicated	By discharge	
Patient Self-care ☐ Nurse education for patient / family ☐ Allied Health Care ☐ Issues Addressed	By discharge	
Discharge Planning ☐ High Risk / Low Risk Status determined ☐ Follow up communicated to GP	By discharge	
☐ Discharge Data Set completed and returned locally, regionally and Nationally	Within 1 week of discharge	
Signed by Physician …… **DATE:**……		

Note: ARNI is now regarded as an acceptable first line therapy as an alternate to ACEI/ ARB –the decision on what to use rests with the clinician.

Post Discharge Follow-up Heart Failure		
Actions	**Time**	**Signed off by/ date and time**
Date and Time of Discharge ____/____/____	____:____	
Patient Self-care ☐ Proficiency Assessed	Within 2 weeks of d/c	
Treatment ☐ ACEI /ARB Titration Maximised ☐ BB (if indicated) Titration Maximised	Within 12 weeks	
☐ Revascularisation needs addressed	At 3 months	
Patient Self-care ☐ Device Needs Addressed	At 4 months	
Dataset ☐ Three month dataset completed and returned to regional/national centre	At 3 months	
Follow-up Plans ☐ High Risk / Low Risk Status determined ☐ Follow up communicated to GP	At 3 months	
Signed by Physician …… **DATE:**……		

APPENDIX 6 IDENTIFYING STABLE/ UNSTABLE HEART FAILURE PATIENT

The HF MOC recognises that the natural history of HF is that patients tend to deteriorate gradually over time. At the start of the disease trajectory, patients are often reasonably stable in a low risk category. As symptoms of HF develop the patient often has periods of clinical stability (criteria for clinical stability include; no change in diuretic dosage, HF symptoms and NYHA class constant, no signs of overload on clinical exam). This can generally be managed successfully in the community by GPs, following specialist diagnosis and establishment of a treatment plan. As time progresses patients may deteriorate acutely. These periods of clinical instability, lasting from days to weeks will require referral to specialist services, either urgent out-patient attendance or hospitalisation. Patients may then recover functional capacity, to the point where after a transition period following hospital discharge they again reach clinical stability. Following a deterioration and admissions patients should remain under the management of the specialist outpatient service until they have been clinically stabilised for at least 3 months. This in effect means that they have not required intravenous diuretic for management in this 3 month period. The patient can then be referred back for GP management as before, with an updated management plan. Some patients following deterioration and hospitalisation will not recover so well, and if they survive to discharge, will require ongoing care by the specialist outpatient service. A cycle of deterioration may occur with repeated rehospitalisation. Phase 1 and 2 can be managed in general practice and the stable periods of phase 3.

The NHP defines adults with stable HF as “adults diagnosed with chronic heart failure whose clinical condition has not deteriorated to require hospital admission within the last year”. This cohort of adults with stable HF should be the cohort registered by GP’s for management in Primary Care. Patients who subsequently deteriorate should be referred to specialist services either on an inpatient or an outpatient basis as appropriate and remain on the GP register. They should stay under the care and clinical responsibility of the specialist services, as outlined above until they have been re-stabilised clinically for at least 3 months. They can be discharged back for GP management in the community while they remain stable.[19]

APPENDIX 7 HOSPITAL DATA COLLECTION SHEET FOR ADHF

1.	**MRN:**	**2.**	**DOB: ___/___/____**
3.	**GMS/LTI No:**	**4.**	**Gender: Male ☐ Female ☐**

Index Admission

5.	Date of Admission:	___/___/____
6.	During admission was patient seen by HF clinical Lead/designate:	Yes ☐ No ☐ Unknown ☐
7.	If yes, date seen by HF Clinical Lead/designate	___/___/____
8.	Is this a: ☐ First Admission for HF ☐ Repeat Admission for HF	
9.	Did the patient have an in-hospital Echo:	Not Required ☐ Yes ☐ No ☐
10.	Date of in-hospital Echo (if required):	___/___/____
11.	Left Ventricular Ejection Fraction < 40%:	Yes ☐ No ☐
12.	Was HF the primary cause of admission:	Yes ☐ No ☐
13.	Was HF Education given:	Yes ☐ No ☐
	- Weight Measurement Instruction:	Yes ☐ No ☐
	- Medication Compliance:	Yes ☐ No ☐
	- Salt Restriction:	Yes ☐ No ☐
	- Smoking Cessation:	Yes ☐ No ☐ N/A ☐
	- Exercise Advice:	Yes ☐ No ☐ N/A ☐
	- Contact Information for Deterioration:	Yes ☐ No ☐

Discharge

14.	ACE INHIBITORS/ARB AT DISCHARGE:	YES ☐ NO ☐ CONTRAINDICATED ☐
15.	BETA BLOCKERS AT DISCHARGE:	YES ☐ NO ☐ CONTRAINDICATED ☐
16.	ALDOSTERONE ANTAGONIST AT DISCHARGE:	YES ☐ NO ☐ CONTRAINDICATED ☐ NOT INDICATED ☐
17.	DATE MEDICALLY FIT FOR DISCHARGE:	___/___/____
18.	DATE OF DISCHARGE (IF DIFFERENT):	___/___/____
19.	DISCHARGE DESTINATION:	☐ HOME ☐ NURSING HOME ☐ HOSPITAL TRANSFER:_____
20.	DEATH IN HOSPITAL:	YES ☐ NO ☐
21.	DATE OF DEATH:	___/___/____
22.	NATRIURETIC PEPTIDE AT DISCHARGE (PLEASE ENTER AS APPLICABLE):	BNP: ____ NT-PROBNP: ____
23.	CREATININE AT DISCHARGE:	_____ MMOL/L
24.	WAS HF BOOKLET GIVEN TO PATIENT: WAS PATIENT INFO LEAFLET GIVEN TO PATIENT:	YES ☐ NO ☐ YES ☐ NO ☐
25.	FOLLOW UP PLANS – DATE OF HF CLINIC APPOINTMENT:	___/___/____

(This dataset is to be completed for every hospital admission with acute decompensated heart failure.
Refer to guidance notes provided if required.)

Heart Failure Data Collection Sheet for ADHF

Three Month Follow Up:
(If the patient has died before the 3 month follow up please complete questions 1 to 10)

1.	**MRN:**	**2.**	**DOB: ___/___/____**
3.	**GMS/LTI No:**	**4.**	**Gender: Male ☐ Female ☐**

5.	Any HF Admissions in the last 3 months:	Yes ☐ No ☐	
6.	Any emergency non-HF admissions in the last 3 months:	Yes ☐ No ☐	
7.	Any **unscheduled** contacts in the last 3 months for HF:	Yes ☐ No ☐	
	If Yes:	Emergency Room/AMAU visit for HF:	Yes ☐ No ☐ # of Visits: ___
		Unscheduled Visit to HF clinic:	Yes ☐ No ☐ # of Visits: ___
8.	Any **scheduled** contacts in the last 3 months for HF:	Yes ☐ No ☐	
	If Yes:	HF Specialist	Yes ☐ No ☐ Number: ____
		GP	Yes ☐ No ☐ Number: ____
		HF Nurse – Telephone	Yes ☐ No ☐ Number: ____
		HF Nurse – Visits	Yes ☐ No ☐ Number: ____
9.	Date of Death:	___/___/____	
10.	Cause of Death:		

Care Metrics

<table>
<tr><td>11.</td><td>Echo since discharge to assess response to medical therapy:</td><td>Yes ☐ No ☐
LVEF: _____</td><td>Date: __/__/___</td></tr>
<tr><td>12.</td><td>ICD indicated:</td><td>Yes ☐ No ☐</td><td></td></tr>
<tr><td>13.</td><td>CRT indicated:</td><td>Yes ☐ No ☐</td><td></td></tr>
<tr><td>14.</td><td>Natriuretic Peptide (BNP/NT-proBNP) at follow up:</td><td>Yes ☐ No ☐</td><td></td></tr>
<tr><td>15.</td><td colspan="3">Allied Health Professionals: In the last 3 months, <u>if required</u>, has the patient been seen by (tick all that apply):
<table><tr><td>☐ Physio</td><td>☐ Dietitian</td><td>☐ Pharmacist</td><td>☐ Psychology</td></tr><tr><td>☐ Not Available</td><td>☐ Not Available</td><td>☐ Not Available</td><td>☐ Not Available</td></tr></table></td></tr>
<tr><td>16.</td><td>Confirmed Max Tolerated Dose: ACE Inhibitor/ARB</td><td>Yes ☐ No ☐
☐ Contraindicated</td><td></td></tr>
<tr><td>17.</td><td>Confirmed Max Tolerated Dose: Beta Blocker</td><td>Yes ☐ No ☐
☐ Contraindicated</td><td></td></tr>
<tr><td>18.</td><td>Confirmed Max Tolerated Dose: Aldosterone Antag</td><td>Yes ☐ No ☐
☐ Contraindicated
☐ Not Indicated</td><td></td></tr>
<tr><td colspan="4">Follow Up Plans</td></tr>
<tr><td>19.</td><td>GP:</td><td>Yes ☐ No ☐</td><td>Date: __/__/___</td></tr>
<tr><td>20.</td><td>Specialist Review:</td><td>Yes ☐ No ☐</td><td>Date: __/__/___</td></tr>
</table>

Patient Information Leaflet for the Collection of Data for the Heart Failure Programme

Why is data being collected?

Data is being collected on all heart failure patients so that the quality of care can be analysed and measures taken to further improve the care all patients receive.

What data will be collected?

The Heart Failure nurse will show you the data collection form which contains the data to be collected relating to your stay in hospital.

There will be some basic information collected such as your date of birth, your gender, and your hospital Medical Record Number. Your name or address will not be collected on this form, nor will it be passed on to anyone else.

If you have a medical card number (GMS) or Long Term Illness (LTI) number that will also be collected. This allows the Heart Failure Programme to review your heart failure medications by cross-checking with information from the Primary Care Reimbursement Scheme (PCRS). The PCRS is the information that is kept by the HSE on all medications that are given to medical card holders or long term illness patients.

The remaining data will relate to the care you have received in hospital.

After discharge, at your scheduled three month visit to the Heart Failure Clinic, a second set of data will be collected. Basic information will be collected as before and some additional data about your treatment and any readmissions or contacts you have had with the hospital since you were discharged.

The data collected will be sent to a central location in the HSE where it will be stored securely and analysed. Results will be sent back to the heart failure programme at your hospital.

Do you have to take part?

Participation is entirely voluntary and you are free to decide not to allow your data to be collected or to have it removed from the database at any time. This will not affect your treatment and care at the hospital in any way.

Will my data be kept confidential?

The HSE will manage your data strictly according to the Data Protection Act. This means that your data will be kept safe and secure at all times and only staff in the Heart Failure Programme will have access to it. The data collection forms will be stored in a locked filing cabinet in a locked office and data stored on computer will be password protected.

Who can I contact if I have further questions?

If you have any questions or concerns about the data being collected, then please discuss it with your doctor or heart failure nurse at the hospital

APPENDIX 8 PROFESSIONAL ROLES IN THE HEART FAILURE PROGRAMME

The roles of the members of the Multidisciplinary Team are described in line with the levels of the Model of Integrated Care:

Hospital Clinical Lead in the Heart Failure Programme

(Hospital based level 3 & level 4)

The clinical lead should either be trained cardiologist or a general physician or care of the elderly physician with expertise in heart failure management. The lead should work in tandem with a back-up physician who will take responsibilities for the service in his/ her absence. The major responsibilities of the lead position are:

- To coordinate care of the heart failure patient at in-patient and out-patient level
- To direct the involvement of the nursing and allied health care staff involved in care of this patient population
- To liaise with medical colleagues to ensure optimal use of this service in the hospital and out-patient setting. In particular, to ensure that there is close working relationship between the ER and the heart failure service.
- To coordinate ongoing outpatient care with the general practice service
- To arrange regular meetings of the heart failure team to review progress of the service, discuss patient care matters and address any problems
- To be responsible for quarterly audits of the heart failure service focusing on primary metrics of the National HF Programme.
- To link with the Regional Lead for Heart Failure and the Regional Director of Operations on an matter causing difficulties to the smooth running of the service at a local level.

General Practitioner in Primary Care

(Primary Care Service Level 1 and 2)

The General Practitioner (GP) is the key health professional for the majority of patients with heart failure. They provide assessment, diagnosis, treatment and on-going monitoring of patients with heart failure and referral for specialist heart failure services when required.

Practice Nurse

Primary Care Service Level 1 and 2

The Practice Nurse works with the GP, providing regular structured review for diagnosis, education, support and advice on life style changes including smoking cessation, provision of vaccination and self-management

Public Health Nurse (PHN)

Primary Care Level 1

The PHN provides advice in the implementation of the HF management protocols for the diagnosis and management of Heart Failure in the community. Support patients in their home in the provision of self-care monitoring, advice and education. Acts as an interface between Hospital and General Practice to ensure ease of communication. Facilitate referral of patients to clinics by direct contact with the nurse specialist and GP's.

Integrated Care Clinical Nurse Specialist Heart Failure

Primary Care / Hospital (Service Level 2)

The purpose of this post is to deliver, promote and develop Heart Failure Integrated Care services nationally through the provision of support and education to general practice physicians and practice nurses enabling them to manage heart failure care in primary care. The role also involves creating collaboration between primary and secondary care to ensure a seamless heart failure service.

The role facilitates evidenced based diagnosis and management of patients with HF including prescribing and providing assessment and advice on management of HF, supporting self-management, lifestyle changes including smoking cessation and exercise. Supporting/providing symptom control management and refer to Cardiac Rehabilitation Programme. Provides education to patients, their families/carers and the wider MDT in, disease education evidenced based management the prevention of disease progression and self-management support. Provides an integrated link to secondary care specialist support.

Community Pharmacist

Service Level 1 and 2

Plays a key role in helping HF patients manage the disease. Provides information on medication and medication review, together with an explanation of self-management plans if suitably skilled. They can also provide assistance in education in smoking cessation and general health and wellbeing.

Clinical Nurse Specialist - Hospital based

(Service Level 3 and 4)

The hospital based HF nurse cares for patients and their families/carers with HF by providing direct clinical care, information, education and support. Facilitates evidenced based diagnosis and management of patients with HF, prescribing and providing assessment and advice on management, supporting self-management, lifestyle changes including smoking cessation, exercise and supporting/providing symptom control management and referral to cardiac rehabilitation programmes. Provides education for patients, their families/carers and the wider MDT in, disease education evidenced based management the prevention of disease progression and self-management support.

The Clinical Nurse Specialist will have a minimum of 5 years cardiology experience. Should have completed the nursing/ midwifery medicinal product prescribing.

Advanced Nurse Practitioner (ANP)

Hospital based (Service Level 4)

The ANP works autonomously to provide care for patients with HF and their families/carers by providing direct clinical care, information, education and support. Provides independent nurse led clinics for HF patients, facilitating evidenced based diagnosis and management including assessment and prescribing. Provides case management and support for the on-going care of specific patients in collaboration with GP, Consultants and the wider MDT. Provides education for patients, their families/carers and the wider MDT in, disease education evidenced based management, the prevention of disease progression and self-management support.

The Advanced Nurse Practitioner will have completed the MSc in Advanced Practice Nursing with medicinal product prescribing. Completed at least 500 clinical supervised hours.

Physiotherapist

(Service Level 3 and 4)

The hospital based physiotherapist manages patients with HF, and provides care through exercise prescription and supporting self-management as appropriate.

Ideally the physiotherapist involved with the heart failure service should have in addition to his/ her standard physiotherapy qualifications experience in management of cardiac patients.

Cardiac Physiologist

Level 2, 3 & 4

Provides a Doppler Echocardiography testing service in both the hospital and community.

The physiologist involved should possess standard qualifications and in addition be independently competent in Doppler Echocardiography.

Pharmacist

Hospital based (Level 3 and 4)

Provides and supports medicine reconciliation on admission, during the inpatient stay and discharge. Assists the nursing and medical team in providing medicine advice and the education and training of patients in the correct use of medications.

Ideally the pharmacist involved with the heart failure service should have in addition to his/ her standard pharmacy qualifications some experience in cardiovascular disease pharmacy care.

Dietitian

Secondary and community settings

Assesses the individual's nutritional status and risk of malnutrition. Develops evidence-based nutrition care plans based on the individual's need. Provides education for wider MDT, including nutrition screening tools. Provides advice regarding the use of therapeutic artificial nutrition support in line with best practice guidelines.

Psychologist

Secondary and community settings

Provides support to clients, either in a group or in one to one sessions, with long term health conditions by validating the impact of their condition on their mental and physical wellbeing (a bidirectional relationship). Works with clients to foster a range of skills to assist them to self-manage their condition and in turn using these self-management skills helps clients to break their symptom cycle giving them confidence to positively impact their mental and physical wellbeing.

APPENDIX 9 CONSIDERATIONS for HEREDITARY CAUSES of DILATED CARDIOMYPATHY and HEART FAILURE

Non-ischaemic dilated cardiomyopathy may have a genetic cause in up to 50% of individuals. Most of the genetic conditions causing DCM are Autosomal Dominant conditions, variably expressed. Therefore first degree relatives of the index patient (parents, siblings and offspring) have a 50% chance of also inheriting the pathogenic genetic variant and developing the condition. There is evidence that pre-symptomatic treatment can alter the natural history of the condition, providing justification for clinical and / or genetic screening of relatives.
Clinical 'red flags' that might suggest a genetic basis include: family history of other individuals diagnosed with non-ischaemic heart failure, personal or family history of premature conduction delay (e.g. relatives requiring pacemakers < 60 yrs of age), family history of unexplained sudden deaths (typically < 40 yrs of age), personal or family history of neuromuscular features, developmental delay.

While much of the acute and chronic management of the index patient is not affected by the presence of a genetic cause, in certain situations such as Lamin A/C cardiomyopathy, the risk of life-threatening arrhythmia does not directly correlate with left ventricular systolic function estimates, so Specialist assessment is advised.

Accessing Inherited Cardiac Conditions (ICC) Services and Genetic Testing in Ireland

There are 2 dedicated Adult and one Paediatric services for ICC. Together with the Centre for Medical Genetics in Crumlin Hospital these Centres form the National Network for Inherited Cardiac Conditions, which has been accepted as a Full Member of the European Reference Network for Rare Cardiac Conditions (GUARD-Heart). Index patients with suspected genetic basis for DCM can be referred to these services for assessment, discussion of family screening, and consideration of genetic testing.

Adult referrals age 16 years and over (from GP, Community Hub and Hospital Team): Either:
Centre for Cardiac Risk in Younger Persons (CRYP Centre), Tallaght University Hospital, Dublin 24.
(Dr Deirdre Ward and Dr Derek Crinion)
Tel 01-4143058 or email CDYPClinic@tuh.ie

Or
Family Heart Screening Clinic, Heart House, 53-54 Eccles Street, Dublin 7.
(Prof Joseph Galvin, Dr Catherine McGorrian, Prof Niall Mahon)
Telephone: (01) 803 4354, Fax: (01) 803 4417 or email familyheartscreening@mater.ie

Paediatric referrals (from birth to 15 years – if approaching 16th birthday refer to adult services):
Inherited Cardiac Conditions Service, Children's Health Ireland at Crumlin.
(Dr Terry Prendiville, Dr Mark Walsh).

Both adult clinics also run 'Family clinics' where children and adults from the same family may be assessed together on the same day, so family units that span the age ranges can be referred directly to the adult services.

APPENDIX 10 IRISH HEART FOUNDATION HEART FAILURE SERVICES FOR PATIENTS

As part of an integrated care Programme for the prevention and management of chronic disease, comprehensive support for Heart Failure patients is key, particularly from hospital discharge to home. The Irish Heart Foundation currently provides a range of heart failure patient information and support services in 7 CHO areas (CHO 2, 3, 4, 5, 6, 7 & 9). Within these areas, virtual support through a numbers of channels is offered, including:

- **Heart Support Network Facebook** page - run by experienced moderators from 9am to 10pm seven days a week where patients and their families' access weekday exercise, Facebook live information sessions on Self-Management and can get real time peer support.
- **Monthly Zoom** informational meetings each with its own expert guest speaker,
- **Nurse support** line – Monday to Friday 9a,m. – 1p.m on 01 6685001 and e mail at support@irishheart.ie
- **Monthly newsletter** for those who are not online
- **Heart Failure Website Page -** We also have a Heart Failure specific page on our Irish Heart Foundation website where we have videos on Self-Management, a Heart Failure Podcast series, Fluid Heart Tracker App and general information on heart health www.irishheart.ie
- **Phone Support –** We are available by phone to patients and their families who need support. We also have a Heart Failure Patient Panel who are instrumental in shaping and delivering our supports above.

All the above supports work on the premise that we are educating and supporting patients and their families on Living Well. Each month across all the platforms, the IHF covers:

- Self-Management
- Exercise
- Mental Health
- Medication
- What is available in your community
- Diet, Exercise and Weight Management including Shopping Guide and
- ICD/Pacemaker education

The above supports are instrumental in helping HF patients keep well with Heart Failure from hospital discharge to being at home with the key components of improving their quality of life and so reducing hospitalisation.

THIS DOCUMENT HAS BEEN REVIEWED AND SIGNED OFF BY:
HSE'S NATIONAL CLINICAL ADVISOR AND GROUP LEAD FOR CHRONIC DISEASE
NATIONAL HEART PROGRAMME CLINICAL ADVISORY GROUP
ICGP QUALITY & SAFETY IN PRACTICE COMMITTEE
HSE CHIEF CLINICAL OFFICER'S CLINICAL FORUM
DUE FOR REVIEW SEPT 2023

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