DHG PCN Heart Failure (HF) Project – Early Identification and Optimisation of HF – An Implementation Guide

DEBEN HEALTH GROUP PRIMARY CARE NETWORK

Step 1: Retrospective Case Finding

Identify patients with missing HF diagnosis coding by reviewing patients on the Ardens QOF 'Case Finding' reports (other reports also available to import/download, such as CDRC)

Complete desktop review of previous Echocardiograms/ Cardiology letters/ BNP results/ clinic notes for mention of HF/CCF/LVSD or associated symptoms. Ensure HF type is classified on SNOMED coding and any queries raised with appropriate clinician

QOF | ?HF
QOF | ?HF and LVSD as HF diagnosed but no LVSD assessment
QOF | ?HF as BNP >100 or BNP-Pro >400 + on diuretic + no echo
QOF | ?HF as cardiomyopathy and breathing difficulty
QOF | ?HF as echocardiogram shows LVD
QOF | ?HF as h/o heart failure or plan
QOF | ?HF as left ejection fraction <45%
QOF | ?HF as left ventricular cardiac dysfunction
QOF | ?HF as on diuretic + impaired LVF

? Heart Failure 2.1 - Case Finding - Significantly raised BNP w/o HF #
? Heart Failure 2.2 - Case Finding - LVSD/LVDD or moderately raised BNP - on loop diuretic #
? Heart Failure 2.3 - Case Finding - Heart failure medication but no heart failure diagnosis

Step 2: Ongoing Early Identification through Education and Robust Coding Protocol

Upskill full clinical team on the **signs and symptoms of HF** - supporting early identification of undiagnosed patients presenting at routine appointments, such as long term condition/annual health reviews with HCAs/nurses, and ensuring staff are confident to **request appropriate investigations**.
For Example, HCA flagging symptoms to duty GP and requesting addition of BNP to blood test being taken for review

Identifying HEART FAILURE: *REFER any undiagnosed patient for a Heart failure workup with GP/NP with any of these following symptoms: new onset or progression of bilateral leg oedema/ SOB on exertion or at rest/ SOB lying flat at night saying needs pillows to sleep upright*

Investigations | **Bloods/ BP/ Pulse:** FBC, U&Es, Hba1c, Lipid profile, TFT, **BNP vital** **ECG** **CXR**

Ensure robust **coding protocol** in place for processing new echocardiograms and coding of heart failure diagnoses. Provide adequate training to admin staff/coders for flagging letters to clinicians if no clear diagnosis listed by the consultant but letter suggests HF (eg mentions of Left Ventricle Failure/Dysfunction, a BNP >2000, mentions of right sided/congestive failure, a referral to community HF nurses) so that diagnosis can be clarified and coded accordingly.

Create process for accurate and **consistent SNOMED coding**, including classification of HF type based on Ejection Fraction (EF), such as through the creation of a **template** (example below).

ECHOCARDIOGRAPHY

- ☑ Echocardiography
- Normal LV: ☑ Echocardiogram shows normal left ventricular function
- LVSD: ☑ Echocardiogram shows left ventricular systolic dysfunction
- LVDD: ☑ Echocardiogram shows left ventricular diastolic dysfunction
- Left ventricular ejection fraction ____ %

If the Ejection Fractions is less than 50%, check if the pt is already coded for Heart Failure. If not code with G58 (set as a Major Active Problem), and correct classification as below and send to GP with the note "GP New HF diagnosis, please action for review of pt's medication".

NEW HEART FAILURE DIAGNOSIS

- ☑ New Heart failure Diagnosis — Heart Failure
- Heart Failure Classification: ____

PLEASE CHECK CORRECT HF CLASSIFICATION IS ALSO CODED >>

Heart failure type	SNOMED code
HFrEF (HF with EF ≤40%)*	703272007
HFrEF (HF with EF ≤40%) and echo shows left ventricular systolic dysfunction (LVSD)	407596008
HFmrEF (HF with EF 41–49%)	788950000
HFpEF (HF with EF ≥50%)	446221000

Step 3: Identifying and Diagnosis: "*Patients with new onset or progression of bilateral leg oedema/ SOB on exertion or at rest/ SOB lying flat at night saying needs pillows to sleep upright, with or without cardiac PMH should have a workup for suspected heart failure*"

Investigations: 1. ECG, CXR, BP, pulse, Fbc, U & E, lipids, TFT, BNP

2. Interpreting BNP results

BNP >2000pg/ml:	BNP 400-2000pg/ml:	BNP <400:
2 week **Urgent** ECHO referral	Routine ECHO referral	No echo, consider other diagnosis

Consider starting ACE/ARB, and BB if not CI whilst a/w ECHO

Review patient's meds and if appropriate stop/ reduce any drugs that could case or worsen heart failure

Assess patient for signs of fluid overload – may need furosemide or bumetanide

Step 4: What type of heart failure does the patient have? Identifying and knowing what type of heart failure the patient has, helps knowing what management/ treatment plan is appropriate to them

Echo with EF > 50% - Preserved Ejection	Echo with EF 41–50% - Mildly reduced ejection	Echo with EF <40% - Reduced ejection fraction
Consider HFpEF or alternative diagnosis? Needs GP follow up	**HFmrEJ** **Code as Heart failure** Needs appointment for GP follow up	**HFrEJ** **Code as Heart Failure** Needs urgent appointment for GP review including 4 pillars of treatment Consider urgent referral to HF team if symptomatic/ BNP>2000

Step 4: The Heart Failure Review - "aim is to prevent hospital stays due to worsening heart failure, prolong life and decrease symptoms and improve quality of life"

★ Review	Heart failure annual review (XaIQN) QOF
★ NYHA	New York Heart Association classifi... QOF
★ Heart failure medication review	☑

ECHO – make sure it is recent up to date or consider a new one if old or symptoms have worsened.

What are their symptoms?: Use the **NEW YORK HEART ASSOCIATION (NYHA) Functional Classification**

NYHA Class	Description
Class 1	No limitation of physical exercise.
Class 2	Slight limitation of physical activity. Comfortable at rest, but ordinary physical activity causes excessive symptoms.
Class 3	Significant limitation of physical activity. Comfortable at rest, but less than ordinary physical activity causes excessive symptoms
Class 4	Unable to do any physical activity without discomfort. Symptoms can be present even at rest. If any physical activity is done, discomfort is increased.

TREAT: according to type of heart failure they have and **their symptoms** (if any)

HFrEF (<40%)	All 4 pillars of treatment needs to be offered, start one medication at a time, low and slow on all. **Better to be on low doses of all 4 pillars and gradually titrate up rather than only a couple of the medications at higher doses**. Diuretics only to be added in short term if SOB/swollen ankles.
HFmrEF (41 – 50%)	ACE/ BB straight away. If still symptomatic, add in SGLT2. If still symptomatic – add in MRA. Diuretics only to be added in the short term if worsening SOB/swollen ankles.
HFpEF (>50%)	Titrate up diuretics if breathless. Start SGLT2 if SOB. Treat other co-existing conditions patient may have and ensure controlled: hypertension/ Diabetes/CHD/ CKD

For full