Safety in Failure: Enhancing Patient Experience, Care and Outcomes in Heart Failure

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Background

Grampians Heath is a large regional Health service in Victoria, with a disproportionally large burden of Heart Failure admissions, and no existing Heart Failure care pathway. A new patient-centred, evidence-based model of care was introduced in conjunction with the Safer Care Victoria Heart Failure Collaborative and Cardiovascular Nurse Ambassador programs.

Methods

The new Model of Care was based upon the Heart Foundation's "*Five steps to a Safe Heart Failure Discharge*'[1]. The following interventions were implemented to establish and sustain the new model of care:

Results

- A new Heart Failure model of care has been implemented, including some regional sites: Over 10 months, 70% of the 185 inpatients seen have received all 5 steps.
- Significantly expanded HARP and two new Heart Failure Cardiac Rehabilitation services to support the large increase in referrals.
- A new Heart Failure Cardiac Rehabilitation Nurse Practitioner role. This extends the capacity of the Heart Failure Clinic, by providing weekly assessment & medication titration, and rapid access to the HF consult team.
- There has been positive consumer feedback regarding the increased education and support provided, with many clients utilising the Heart Failure HELP for assistance.

Conclusions

- Collaboration during model of care design and implementation has strengthened partnerships with internal and external services, such as Hospital in the home, HARP and Ballarat Community Health, who perform a vital role in the extended Grampians Health Heart Failure team.
- Challenges included the paper-based medical records system, and worsening GP access, which remains a barrier to continuity of care.
- Next steps include readmissions and process data to evaluate the model of care impact on hospital readmissions, length of stay and quality of life measures.

HEART FAILURE PATIENT MANAGEMENT Checklist

Aboriginal & Torres Strait Islander	☐ Aboriginal	☐ TSI	☐ Neither
English as first language	Yes/ No	**Born in Australia**	Yes/ No _____
HF DIAGNOSIS:	☐ **HFrEF**	☐ **HFpEF**	☐**Pul HTN** RVSP_____
TTE Date: ___/___/___	**LVEF %** _____	**RV function** _____	RWMA ☐ DCM ☐
Heart VALVES: Mild/Mod/Severe	MVR/MS: _____	TVR/AS: _____	AVR/AS: _____
COMORBIDITIES: Implanted device	☐ PPM/ICD/CRTD	☐ **HTN**	☐ **AF** NOAC Yes/No
☐ **IHD :** STEMI/NSTEMI/CABGS	☐ **Diabetes**	☐ **PVD** ☐ **STROKE**	☐ **CKD** ☐ **AKI**
Smoker ☐ Current ☐ Ex-smoker	☐ **Mood Disorder**	☐ **GOUT** ☐ **GORD**	☐ **COPD** ☐ **ASTHMA**
☐ **OSA** CPAP Yes/No ☐ **ETOH**	☐ **Obesity** (Kg)___	**Dry weight** (kg) ____	**BNP**_____
Daily weight Yes/No	**Fluid Restriction**	**Yes/No**	1000/ 1250/ 1500 mL
Fe levels checked (HFrEF) Yes/ No	**Ferritin** _____, **Tsat** _____**%**	**Fe infusion ordered** Yes / No	**Hb** ___ **K+** ___ **Urea**__ **Creat** ____ **eGfr** ___%

MEDICATIONS PRESCRIBED (Guideline Directed Medication therapy HFrEF, or other):

		Medication	If no, please specify reason	
ACEI/ARB	Yes/ No	_____	☐ Renal ☐ K+	☐ Hypotension Other _____
ARNI	Yes/ No	☐ Sacubitril/valsartan	☐ Renal ☐ K+	☐ Hypotension Other _____
Beta blocker	Yes/No	☐ Bisoprolol ☐ Nebivolol ☐ Metoprolol succinate ☐ Carvidelol		☐ Hypotension ☐ Bradycardia
MRA	Yes/No	☐ Spironolactone ☐ Eplenerone	☐ Renal ☐ K+	☐ Hypotension Other _____
SGLT2inh	Yes/No	☐ Empagliflozin ☐ Dapagliflozin	☐ Renal	Other _____
Beta Blocker not tolerated		☐ Ivabradine SR, P>=77 ☐ Digoxin	**Anticoagulant:**	☐ Dabigatran ☐ Apixaban ☐ Rivaroxaban ☐ Warfarin
ACEI/ARB not tolerated		☐ Hydralizine ☐ ISMN		
Other HF meds		☐ Hydrochlorothiazide ☐ Furosemide ☐ Bumetanide	**Other Cardiac Meds**	☐ Amiodarone ☐ Calcium Channel Blocker ☐ IR Beta Blocker

6 Steps to a Safe HEART FAILURE DISCHARGE:

☐ **NOT 'In scope'** for Safer Care Victoria reporting

Please circle, initial, and add your designation, e.g. RMO, NP, RN, EN, Pha. If not completed, *please enter reason in right column, e.g. delirium, cognitive deficit, off ward, tfr to another hospital etc.*

Patient asked 'What matters to you?"	**Yes/No**	
1. **Education** on **signs** & **symptoms** of **HF** and **fluid management** provided to patient/carer	**Yes/ No**	_____
a. ***Living well with heart failure* book** given	Yes/ No	_____
b. **Daily weight diary** given	Yes/ No	_____
c. **Symptom tracker** given	Yes/ No	_____
d. Patient/carer has **measuring jug** or given	Yes/ No	_____
e. Patient/carer has **weighing scales**	Yes/ No	_____
2. **Written action plan provided to patient/carer**	**Yes/ No**	_____
a. Patient/carer know who to call; **fridge magnet given**	Yes/ No	_____
3. **Medication education provided**	**Yes/ No**	_____
a. Verbal	Yes/ No	_____
b. Written medication list from pharmacy	Yes/ No	_____
4. **Medical review scheduled within 7 days**	**Yes/ No**	_____
a. GP appointment booked?	Yes/ No	_____
b. BHS@Home admission?	Yes/ No	_____
c. Heart Failure Clinic appointment booked?	Yes/ No	_____
5. **Referral to Cardiac Rehabilitation** Sent	**Yes/ No**	
a. Cardiac Rehabilitation Referral Form **(MR 020.21)**	Yes/ No	_____
b. Requested on HARP referral	Yes/ No	_____
6. **Referral to HARP** Sent	Yes/ No	
Grampians Watch/HARP referral (Bossnet **MR0315.5**)		_____
a) HF education & assessment of self-management skills	Yes/ No	_____
b) Medication education	Yes/ No	_____
c) Advanced Care Planning	Yes/ No	_____
d) Referral to Cardiac Rehab, HIP or Physiotherapy	Yes/ No	_____
(On HARP referral: Please state **dry weight** if known).		
Additional referrals:		
a) Referral to Heart Failure Clinic **(MR 104.20)**	Yes/ No	Requested / Completed
b) Referral to Palliative care	Yes/ No	Requested / Completed

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Figure 1: Heart Failure Inpatient and Discharge Planning Checklist

References

1. Five steps to a Safe Heart Failure Discharge, 2021. National Heart Foundation, retrieved 1 from: https://www.heartfoundation.org.au/getmedia/99483a42-bc06-40af-91b4-5617e91ecccd/210412_5stepstoasafedischarge_Final.pdf