

CARE COORDINATION AGREEMENT:

HEART FAILURE AND CARDIAC CONDITIONS

Version 1.0 - April 5, 2023

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1. Care Coordination Agreement Introduction and Principles

A care coordination agreement (CCA) is a formal document or arrangement between health providers about the activities, interventions and responsibilities involved in a patient's care.

A CCA reflects the agreement between partners that will deliver safe high quality care, without unnecessary delays, and prevents patients falling through the cracks. The components of the agreement are based on the following 5 principles:

1. Sender (family practice physician) - sends the right work packaged the right way;
2. Receiver (physician consultant) - does the right work, right away;
3. Each party's needs are Identified and met;
4. Waits and delays for/at appointments are avoided/eliminated; and
5. The agreement is monitored for effectiveness.

2. Care Coordination Agreement Name and Clinical Conditions: Heart Failure and Cardiac Conditions

The Clinical Conditions Referenced include: Heart Failure and Cardiac Conditions

3. Care Coordination Agreement: Providers Involved

This agreement represents the work of: Dr. Keating-Power, Family Practice Physician and the provincial Heart Failure Program team including Dr. Bruce Sussex and Dr. Dave Harnett, Cardiologists.

4. Key Contacts/Champions

Team Members - Collaborative Team Clinic (Eastern Health)

Dr. Dianne Keating-Power
Primary Care Physician

Laura Hickey
Administrative Assistant

Team Members - Heart Failure Program (Eastern Health)

Dr. Bruce Sussex
Cardiologist

Cassie Chisholm
Regional Director

Dr. Dave Harnett
Cardiologist

Kelly Scaplen
Project Manager

Angela Bartlett
Nurse Practitioner

Matthew So
Division Manager

Rody Pike
Nurse Practitioner
Heart Failure Clinic

Jessica Byrne
Regional Program Manager,
Cardiac & Critical Care

Julie Lambe
Clerical Staff

5. Referral Processes

The below process map picture outlines the current steps as determined by the partners in the referral process for the identified clinical conditions. It outlines the steps primary care takes: make a referral, support the patient while waiting for the consultation and share follow-up interactions with the physician consultant. As well as the steps to review, sort, respond and proceed with the consultation, including documentation back to the primary care provider. The process map is intended to be refined and updated over time. The current process map can be found in [Appendix A](#) and is available to edit as an attachment

6. Referral Documentation Forms

Initiating a referral to the HF Clinic or general cardiology involves:

- Basic patient demographic information,
- Describing a clear reason for referral,
- Providing a relevant patient summary,
- Completing necessary laboratory studies and diagnostics, and
- Sharing patient goals and expectations regarding the outcome of the referral.

The referral form pictured below describes the necessary referral information for efficient processing of a patient referral. The referral forms are intended to be refined and updated by the referral partners if necessary. The referral forms are provided as editable attachments in Word document form.

Heart Failure Clinic and General Cardiology Referral		Date:
Patient Referred to: <input type="checkbox"/> Direct to Heart Failure Program <input type="checkbox"/> Any Cardiologist <input type="checkbox"/> Dr.:		
PATIENT INFORMATION		
Name	Date of Birth	MCP
Address		
Phone (Primary)	Phone (Secondary)	Email:
REFERRAL REASON		
<input type="checkbox"/> Heart Failure Program: <input type="checkbox"/> New referral <input type="checkbox"/> Re-referral The patient is aware of the reason for the referral and has been informed that: "The Heart Failure Clinic will provide temporary care over multiple visits to adjust medications and monitor vital signs and lab tests to determine the efficacy of the treatment regimen and the patient's ability to tolerate treatment." Outline current HF management:		<input type="checkbox"/> General Cardiology: <input type="checkbox"/> Consultation <input type="checkbox"/> EST via Cardiology <input type="checkbox"/> Primary Problem: <input type="checkbox"/> Arrhythmia <input type="checkbox"/> PHx cardiac disease <input type="checkbox"/> CAD <input type="checkbox"/> Heart palpitations <input type="checkbox"/> Chest pain <input type="checkbox"/> Presyncope/syncope <input type="checkbox"/> CHF <input type="checkbox"/> Valvular disease/murmur <input type="checkbox"/> Dyspnea Duration of symptoms: <input type="checkbox"/> Acute Onset <input type="checkbox"/> 3-6 months <input type="checkbox"/> 6-12 months <input type="checkbox"/> >12 months Outline current HF management:
REQUIRED FOR A DIRECT REFERRAL TO THE HF CLINIC:		INVESTIGATIONS TO ASSIST WITH SCHEDULING: PLEASE INCLUDE RESULTS:
BNP ≥30 and one or more of the following: <input type="checkbox"/> HF hospitalization within the last 12 months <input type="checkbox"/> 2 or more ER visits for HF symptoms within the last 6 months <input type="checkbox"/> Documented LVEF ≤40% (Cardiac Echo or MUGA) OR <input type="checkbox"/> HF symptoms & BNP > 800 AND <input type="checkbox"/> Absence of severe comorbidities or poor functional status that will limit the benefits of a referral		Lab Studies <input type="checkbox"/> CBC <input type="checkbox"/> Electrolytes <input type="checkbox"/> Renal Function <input type="checkbox"/> Urinalysis <input type="checkbox"/> Glucose <input type="checkbox"/> Thyroid Function Tests <input type="checkbox"/> Chest X-Ray <input type="checkbox"/> ECG <input type="checkbox"/> Echocardiogram <input type="checkbox"/> Exercise Stress Test <input type="checkbox"/> 24-Hour Holter Monitor
HEALTH HISTORY		
Known CAD (Details):		
Risk factors: <input type="checkbox"/> HTN <input type="checkbox"/> DM <input type="checkbox"/> Dyslipidemia <input type="checkbox"/> Tobacco Use <input type="checkbox"/> Premature CAD <input type="checkbox"/> Other:		
Personal/Family History (Details):		
Pacemaker or Implanted Cardiac Defibrillator (Details):		
Previous Cardiac Surgery or Percutaneous Intervention (Details):		
Other patient considerations e.g., impact on life and work (Details):		
Please attach a current medication list including therapy, dose, and frequency		
Additional Information (Details):		

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REFERRAL CONTACT INFORMATION	
Referred By (Name):	Family Physician Name (if different):
Contact Number:	Clinic Number:
Clinic Fax Number:	
<input type="checkbox"/> Family Physician <input type="checkbox"/> Walk-In Clinic <input type="checkbox"/> Emergency Dept. <input type="checkbox"/> Other:	
Fax Numbers: Heart Failure Clinic: (709) 777-2932 Cardiology Consultants: (709) 725-1028 Dr. B. Sussex: (709) 777-8069 Dr. A. Williams: (709) 888-XXXX Dr. F. Paulin: (709) 777-8069 Dr. S. Connors: (709) 777-2932	

7. Interim Primary Care Management

The following statements outline activities that are intended to improve care management in the interim period between PCP referral and the patient's first visit with the Physician Consultant or at the HF Clinic:

- PCP will continue to monitor the patient for new or worsening symptoms including obtaining, reviewing and updating lab and diagnostic tests (e.g. serum potassium, eGFR, etc.)
- PCP will consider pharmacological management based on the Canadian Cardiovascular Society (CCS) 4 pillars approach to managing Heart Failure reduced ejection fraction (HFrEF). The guidelines can be found in Appendix.
- PCP will provide patients with advice on 'When to seek help' based on CCS information.
- PCP will access emergent advice through E-consults and Cardiology on-call while waiting for the consultation.
- PCP will send relevant patient visit summaries, including updated lab work and status changes to the Physician Consultant or the Heart Failure clinic for primary care patient visits occurring in the interim primary care management period.

Current Guidelines for management of Heart failure with reduced Ejection Fraction (HFrEF) LVEF <40%

2021 CHFS Guidelines:

- The approach to initiation and titration of standard therapies for patients with heart failure and reduced ejection fraction (HFrEF) should be directed by clinical and other patient factors including hemodynamic status, renal function, access to medication, adherence, anticipated side effects and tolerability, and patient preference.
- Target: titration of all standard therapies concurrently to target doses, or maximally tolerated doses, within 3-6 months from diagnosis

Angiotensin Receptor Neprilysin Inhibitor (ARNI)/Angiotensin converting Enzyme inhibitor (ACEi)/Angiotensin Receptor Blocker (ARB)

- ARNI preferred over ACEi/ARB
- Up titration guide: SBP > 100 mmHg, no orthostatic symptoms, K < 5, Cr rise < 15% from previous value then increase dose of ARNI, ACEi, or ARB to next step
- Entresto: 24/26 mg BID, 49/51 mg BID, 97/103 mg BID
- Perindopril: 2 mg daily, 4 mg daily, 6 mg daily, 8 mg daily
- Ramipril: 1.25 mg BID, 2.5 mg BID, 5 mg BID, 7.5 mg BID, 10 mg BID
- Candesartan: 4 mg daily, 8 mg daily, 16 mg daily, 32 mg daily
- Valsartan: 40 mg BID, 80 mg BID, 120 mg BID, 160 mg BID

Mineral corticoid Receptor Antagonist (MRA)

- Do not start if K ≥ 5 mmol/L or eGFR < 30 mL/min/1.73 m²
- Decrease dose or hold if K ≥ 5.5 mmol/L
- Spironolactone: 12.5 mg daily, 25 mg daily
- Eplerenone: 25 mg daily, 50 mg daily

Beta Blocker

- Titrate if heart rate greater than 60 BPM, SBP > 95 mmHg
- Bisoprolol 1.25 mg OD, 2.5 mg po OD, 5 mg OD, 7.5 mg OD, 10 mg OD
- Metoprolol 12.5 mg po BID, 25 mg BID, 50 mg bid, 75 mg bid 100 mg bid
- Carvedilol 3.125 mg po daily 6.25 mg bid, 12.5 mg bid 15.75 mg bid 25 mg bid

Sodium-Glucose Co-transporter 2 inhibitor (SGLT2i)

- Initiate
 - o if SBP > 100 mmHg
 - o eGFR > 30
- Dapagliflozin 10 mg daily
- Empagliflozin 10 mg daily
- Caution
 - o No current genital mycotic infection
 - o DKA
 - o Volume depletion
 - o If diabetic A1C < 7.5- consider reducing insulin, sulfonylurea 10-20%
 - o Pending volume status may need to reduce diuretic dose

REASON FOR REFERRAL:		Date:	
Referral Response			
PATIENT INFORMATION			
Name	Date of Birth:	HCN:	
Address:			
Phone (Primary):	Phone (Secondary):	Email:	
Preferred method of Communication <input type="checkbox"/> Email <input type="checkbox"/> Phone			
REFERRAL APPOINTMENT INFORMATION			
Your patient has been notified their appointment has been booked:			
Date:			
Physician Name:			
Facility/location			
PROCEDURE/PRE-VISIT INSTRUCTIONS PROVIDED TO PATIENT			
Add checkboxes for common instructions?			
Attach disease/procedure specific pt instruction sheet?			
Add a link to instruction booklets and forms shared with the patient?			
ADDITIONAL INFORMATION			
The following clinical pathway (insert link) or insert comments (XX) may offer additional suggestions until such time I have seen them.			
Physician Name:			
Contact Number:			

8. Referral Receipt/Referral Response

The structured referral response from the Physician Consultant or the HF Clinic to the PCP provides confirmation that a referral has been received, accepted and includes information provided to the patient about their upcoming HF Clinic or General Cardiology appointment. The referral response form and the processes to send to primary care using electronic mechanisms is intended to be refined and updated by the referral partners if necessary. The referral response form can be found in Appendix.

The PCP team can view future patient appointments within the EMR to respond to patient inquiries about the status of a referral. If the HF Clinic appointment has not been scheduled the PCP team can reach out to the HF Clinic to confirm the status of the referral.

9. Consultation Summary

The general cardiologist, the HF Clinic cardiologist or NP shares relevant information about the outcome of the patient referral to improve the ability of the PCP to support the patient. Important information for well-coordinated care includes:

- Patient identifiers and focus of referral
- Visit Summary
 - Physical assessments and observations
 - Investigations
 - Care management (what, when and whom)
 - Specific to clinical issue
 - Impact on other body systems
 - Follow up tasks and who is responsible
 - Patient and family considerations and role in care
 - Patient education provided
 - Contingency planning

The general cardiologist, the HF Clinic cardiologist or NP will provide this information, through a consultation summary, to the PCP following their consultation with the patient and after follow-up appointments.

10. Shared Care Criteria

For complex patients, ongoing support from the consultant team may be required. Additionally, the patient needs to maintain their care management relationship with their primary care team to manage their condition between Physician Consultant or HF Clinic appointments, treatment interventions, and continued offers of comprehensive primary care. Highlighting the shared care responsibilities and sharing information about interactions from primary care to the Physician Consultant or the HF Clinic and from the Physician Consultant or the HF Clinic back to primary care during follow-up visits is essential. The agreement between the providers includes the following:

- Identify shared care arrangements in consultation summaries, including who is responsible for what management tasks.
- Ensure summaries of follow-up visits, including medication changes, patient education provided and updated blood work and diagnostics from the PCP to Physician Consultant or the HF Clinic and from the Physician Consultant or HF Clinic to the PCP.

11. Discharge Criteria

The Physician Consultant's and the HF Clinic's greatest impact is consulting for new patient referrals. Therefore the ratio of new and return patient visits needs to be specifically considered.

The discussions between primary care and the HF Program providers highlighted the need to reevaluate discharge criteria over time.

- The Heart Failure clinic will provide a HFrEF management summary to guide PCP medication adjustments for patients discharged from the HF clinic.

Current barriers to increase comfort in identifying discharge criteria included:

- Lack of system capacity resulting in extensive waits and delays to referral consultants and to primary care team supports

- Lack of shared documentation, shared electronic messaging, electronic notifications and processes to ensure steps in care provision are not missed. For example, patients notified of abnormal DI and labs.
- Regulation, accountability and responsibility supports .
- Lack of interdisciplinary team supports in both primary and specialty care

Opportunities included:

- CME focused on questions and supports needed by primary care to support ongoing care management of certain conditions
- Early re-referral options
- Accessible e-consults
- Patient self management education and supports

12. Preferred Patient Resources

Common patient resources that are used by both PCP, cardiologists and the HF Clinic team reduce confusion and mixed messages that patients receive about managing their condition. The PCP, cardiologists and the HF Clinic team have identified several resources as quality sources of information for patients.

These websites provide access to:

- Patient education print materials (electronic or pamphlet),
- Short videos,
- Patient journeys,
- Product information, and
- Healthcare provider information.

<https://heartlife.ca/>

<https://www.heartfailurematters.org/>

[Ottawa Heart Institute Heart Failure Patient Guide](#)

13. Monitoring and Measures

Team Champion (primary contact; coordinate meetings;	Who will do it
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communicate updates/changes)	
Dr. Dianne Keating-Power	Dr. Keating-Power
Cardiology	Dr. Bruce Sussex Dr. Dave Harnett
Heart Failure Clinic	Rody Pike

Measures	Who will do it
Number of new and returning patients to the Heart Failure Clinic (EMR report/dashboard)	Rody Pike
Delay between time of referral to the HF Clinic and the scheduling of an appointment (EMR reporting/dashboard)	Rody Pike
Number and origin of misdirected referrals to the HF Clinic	Rody Pike
Track referrals sent and when the patient is seen in the HF Clinic	PCP admin staff

Appendix B - Heart Failure and General Cardiology Referral Form (Attachment)

This is available as an editable attachment in word format.

Appendix C - HFrEF Guideline Summary

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 - Volume depletion
 - If diabetic A1C < 7.5- consider reducing insulin, sulfonylurea 10-20%
 - Pending volume status may need to reduce diuretic dose