Integrated Heart Failure (HF) CoP Webinar:

Topic: Enhancing Integrated Heart Failure Care Through the Spoke-Hub-Node Framework

November 15th, 2024

Ontario Health

Land Acknowledgement

Emma Esselink | Lead, Community Health – OH East Region

Agenda

TIME	TOPIC	NAME
12:00 pm	Land Acknowledgement	Emma Esselink
12:05 pm	Welcome & Introductions Housekeeping	Colleen Lackey & Emma Esselink
12:10 pm	Enhancing Integrated Heart Failure Care Through the Spoke-Hub-Node Framework	Colleen Lackey & Dr. Aws Almufleh
12:40 pm	Q&A	All
12:55 pm	Wrap Up	Colleen Lackey & Emma Esselink

Housekeeping

- Please keep yourself on mute unless you are speaking.

- We encourage you to type your questions or comments in the chat box. The chat box is monitored throughout the webinar. Questions will be addressed directly in the chat box or in the discussion following the presentations.

- We also encourage you to share any suggestions/topics for future webinars.

- This meeting **will be recorded**. A copy of the webinar recording, and slides will be available on the virtual CoP shared space.

Poll #1 – Who is joining us today?

What is your role?

- ❑ Primary Care Physician
- ❑ Specialist
- ❑ Health professional across the continuum of care
- ❑ OHT Backbone Team Member
- ❑ OHT Partner (OHaH, Community paramedics, rehab, hospital admins)
- ❑ Data Lead or Quality Specialists
- ❑ Patient, Family and/or Caregiver
- ❑ OH/MOH/RISE
- ❑ Other

Enhancing Integrated Heart Failure Care Through the Spoke-Hub-Node Framework

Speaker:
Colleen Lackey RN MHsc- OH Clinical Lead – Heart Failure

The Burden of Heart Failure in Ontario

2.9% of Ontario's adult population are responsible for **20%** of acute hospital resource use

~ 330,000 people with Heart Failure (HF)

44,000 new cases/year

Approx half of HF patients are 80+ years and have 3 other major co-morbidities

~200,000 all-cause admissions

440,000 all-cause ED visits annually

6,500 beds

~29,000 HF admissions

35,000 HF ED visits annually

800 beds

~$3.4B in inpatient and Emergency Department care

$220M in QBP funding across **59** hospitals

Improved quality of care of heart failure in Ontario needs an integrated approach to avoid acute care utilization as the 'default' for patients

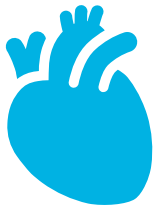
50% of people will die within 2.5 years of first hospitalization for heart failure

Complexity of Heart Failure

Complex Symptoms:

Shortness of breath; Fatigue, Fluid Retention- Can mimic other conditions which makes it challenging to diagnosis early and manage

More complex HF cases often require collaboration with cardiologists and other specialists to ensure comprehensive care is provided



Multiple Etiology's:

Can result from coronary artery disease, hypertension, cardiomyopathy, or valvular disease etc which makes it challenging to determine the underlying cause of the disease

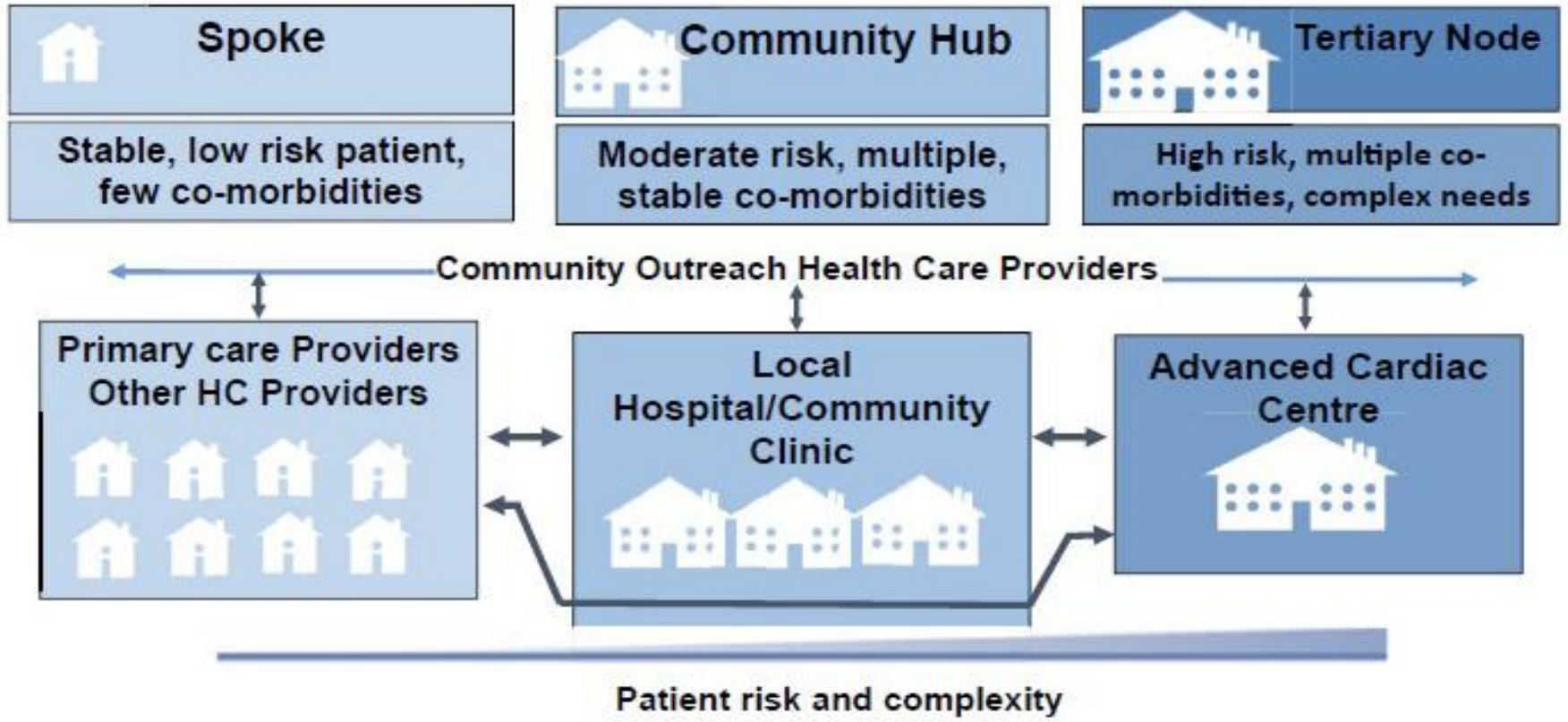
Timely referrals to advanced treatments like ventricular devices (VAD) or cardiac surgery are important

Different Stages of the Disease and Comorbid Conditions

Management requires nuanced medication titration which are more complicated as the stage of the disease progresses

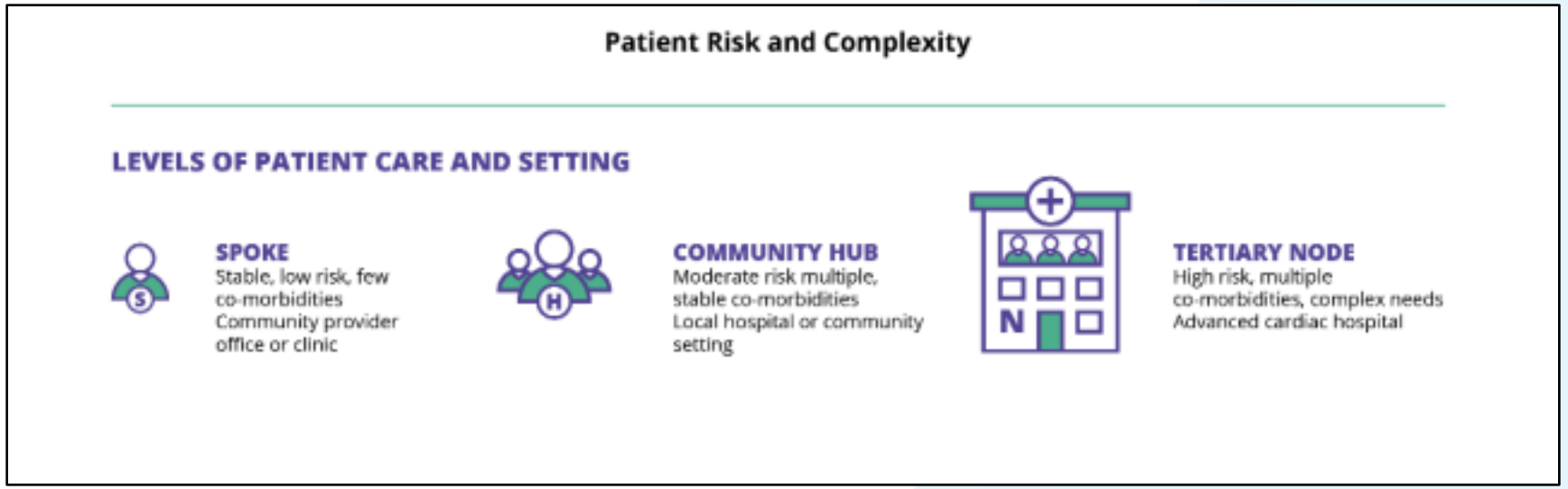
As the complexity of the HF condition increase, these patients require more regular follow up and revisions in treatment plans to improve outcomes and symptoms

Best Practice for Heart Failure Care



Specialized Heart Failure Care is Provided in the Hub and Node

Spoke	Hub	Node
Primary Care	Internal Medicine Clinic	Regional Cardiac Hospital
Unattached Clinics	Community Cardiology Clinic	



A Local Network and Team – Supporting the Patient & Caregiver
Seamless Transitions When Care Needs Escalate or Deescalate

Evidence for Specialised Heart Failure Care

Ontario

- **HQO Heart failure Care in the Community. Quality Statement 8: Specialized Multidisciplinary Care. Health Quality Ontario. Updated 2022.** People with newly diagnosed heart failure, those who have recently been hospitalized or treated in the emergency department for heart failure(HF), and those with advanced heart failure (NYHA III–IV) are ***offered a referral to specialized multidisciplinary care for heart failure***
- **Corehealth The Spoke-Hub-Node Model of Heart Failure Care. Published 2019.** The Spoke-Hub-Node model is a framework for integrated HF care. This framework outlines the requirements for spoke, hub, and node levels of HF care provision. ***Specialized care outside of primary care is detailed in the hub and node description***.
- **Ontario Health technology Assessment Series. Vol 12: November 2012.** ***Specialized community-based care effectively improves outcomes*** in patients with heart failure, COPD, and diabetes. The effectiveness of SCBC in family practice is unclear.

Canada

- **Canadian Cardiovascular Society Guidelines. Heart Failure. Management of HF. 2017, updated guidelines anticipated in 2024/25.** They provide recommendations on who to refer to specialized care to reduce mortality and improve patient outcomes
- **HeartLife Foundation. Heart Failure Policy Framework. 2024.** National patient-led Heart Failure organization. Patient Charter Principles #5, ***Access to multidisciplinary care team throughout my journey that includes a heart failure specialist,*** a nurse, a pharmacist, mental health support, a dietician, a cardiac rehab specialist, and my general practitioner.

Integrated HF Care Initiative- Launched Spring 2022

Goal

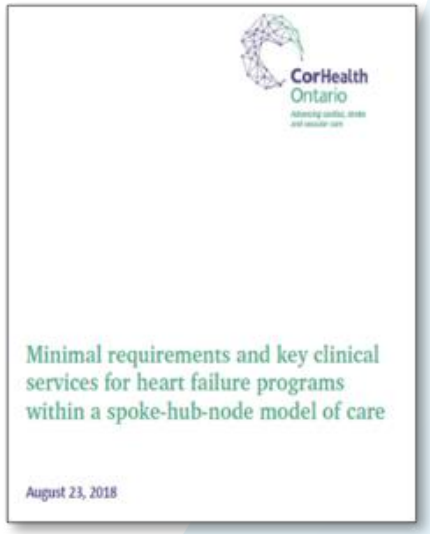
- Improve outcomes and experience of care for patients living with heart failure through integrated care, a greater focus on community management

HF Integrated Clinical Pathways- Demonstration teams

- Initial Phase: 7 OHTs and 9 CHF-QBP hospitals

HF Integrated Clinical Pathways- I 12 OHT

- Started planning 2023 with Launch in October 2024
- 9 additional OHT's – FLA OHT is one of those teams



Ontario Health Team

Enhancing Integrated Heart Failure Care Through the Spoke-Hub-Node Framework

Speakers:

Dr. Aws Almufleh | Kingston Health Sciences Heart Function Clinic Physician Lead and FLA OHT ICP Project Clinical Lead

Disclosures

Speakers Bureau/Honoraria:	Novartis, Pfizer, Bayer, Servier, Boehringer Ingelheim, Novo Nordisk, Alnylam, AstraZeneca
Grants/Research Support:	Novartis, Pfizer
Consulting Fees:	Pfizer

Support

Ministry/Ontario Health funding for integrated care pathways

Institute of Clinical Evaluative Sciences

SEAMO innovation fund

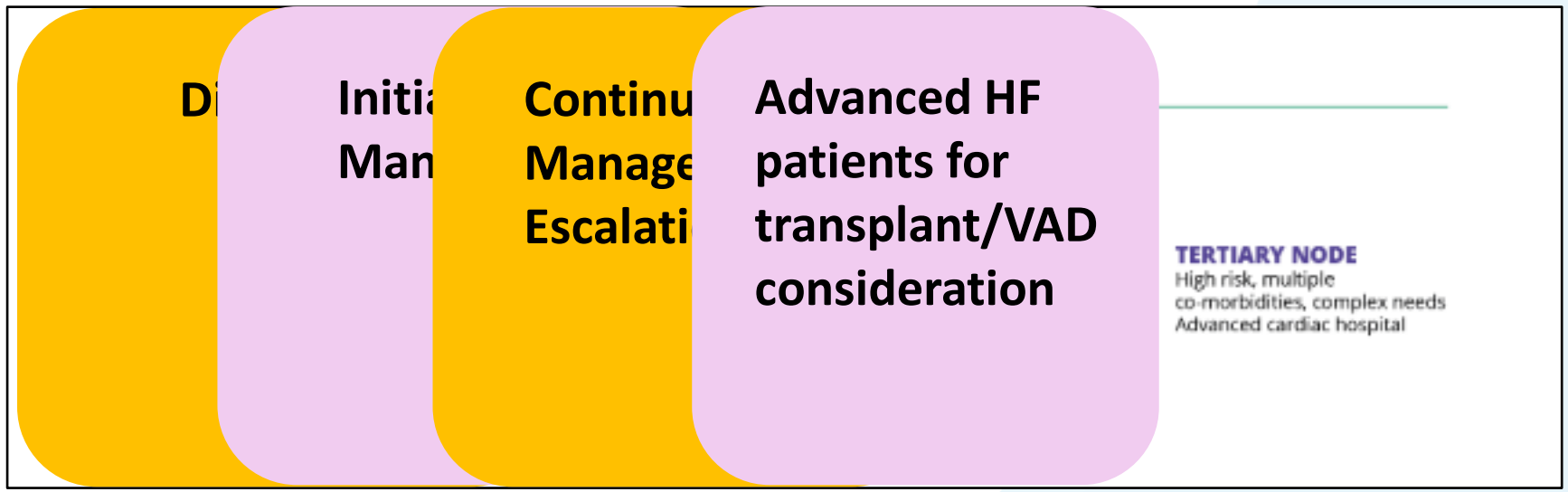
SEAMO quality improvement fund

- Views expressed in this presentation are my views, and do not necessarily reflect those of the Ministry of Health, Ontario Health, IC/ES or FLA-Ontario Health Team
- This work is actively evolving, and the projects presented are at various stages of implementation

Outline

- ✓ Integrated Heart Failure Care Framework throughout the patient care continuum
- ✓ Pathway of Primary-care led Heart Failure Diagnosis in the Community
- ✓ Streamlining access to timely diagnostics and interpretation
- ✓ Heart failure diagnosed; Now what? “Outsourcing” counseling, education, prevention
- ✓ Hospital Care; Readmissions burden and care gaps
- ✓ Boosting efficiency; doing more with less
- ✓ Unattached patients

Spoke	Hub	Node
Primary Care	LACGH HF Clinic	KHSC
Walk-in/Virtual clinic for unattached patients	Community Cardiology Clinics	



A Local Network and Team – Supporting the Patient & Caregiver
Seamless Transitions When Care Needs Escalate or Deescalate

* Specialized testing (imaging, genetics, etc)
* Transplant assessment
* LVAD evaluation
* CRT/ICD
* MitraClip
* Ablation

HF Diagnosis in the community vs acute care settings

HF diagnoses April 1, 2010 and March 31, 2022

- 597,025 patients with new HF identified

➔ 36.9% diagnosed in acute care; Unchanged over time (2010 36.7% vs 2022 36.6%)

• Female patients, without PCP, lower income, and with multiple comorbidities ➔ acute care

• No change based on physician years of experience.

- ➔ increased risk of all-cause mortality (1.82), hospital admissions for HF (2.8), and emergency department visits for HF (2.68); adj age, sex, and baseline comorbidities

A. Van, M. Green, A. Almufleh, et al (Trillium Primary Health Care Research Day; Oct 2024)

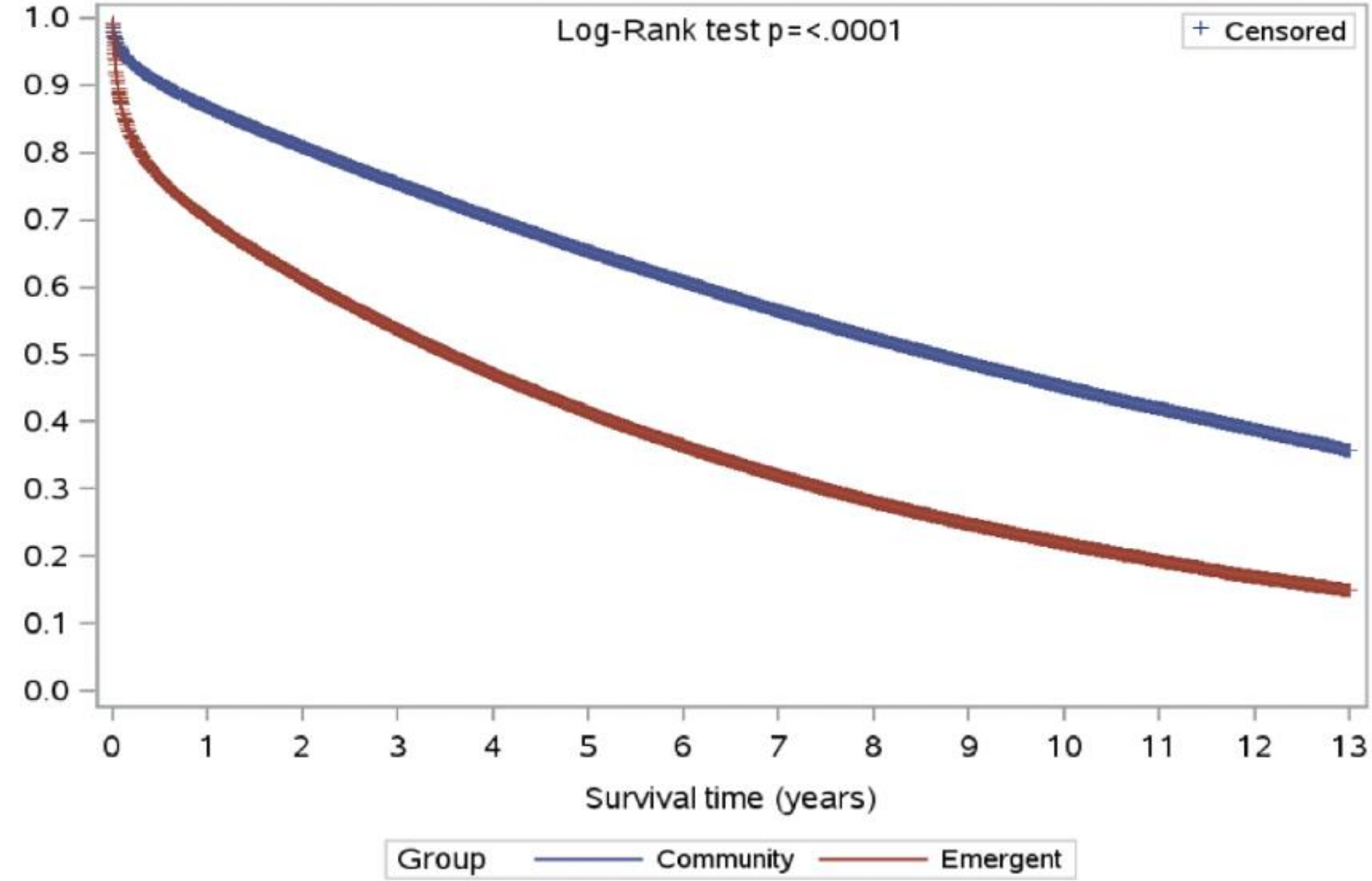
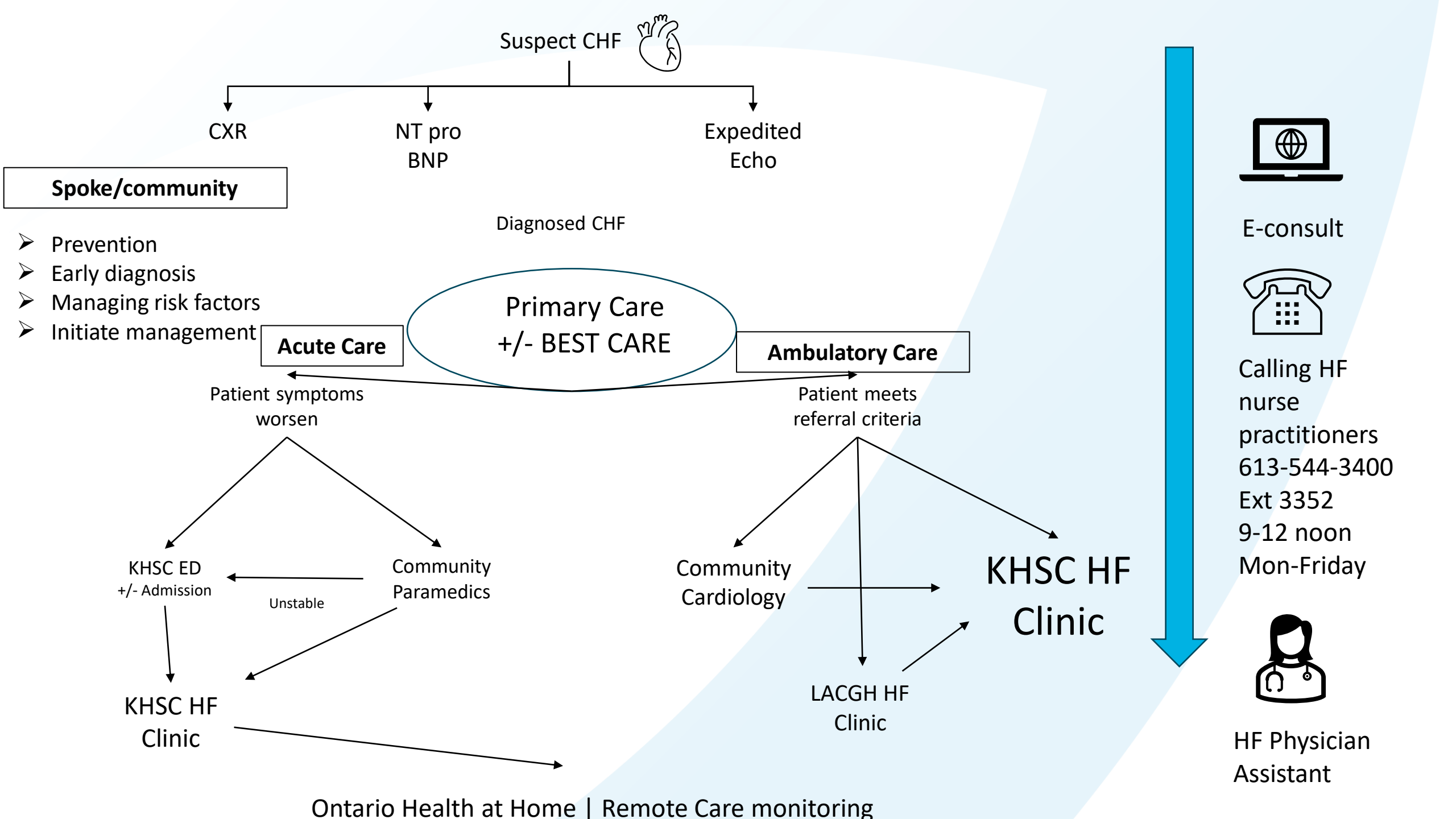


Figure 1: All-cause mortality by heart failure diagnosis setting

A. Van, M. Green, A. Almufleh, et al (Trillium Primary Health Care Research Day; Oct 2024)



Ontario Health at Home | Remote Care monitoring

Barriers to HF diagnosis/initial management

Ontario Health

Challenges of HF Diagnosis in the community

-History and physical examination findings can be discrepant

-Timely access to diagnostic tools (Echo, Holter, BNP, stress testing)

-Nuanced interpretation for some tests

-Unease about diagnosing/explaining HFpEF

-Lack of consistent/reliable specialist support in navigating the diagnosis process

Challenges of HF Management in the community

-**Therapeutic options are for HFrEF are rapidly evolving**

-Patients/PCPs ambiguity about who could/should manage HF

-**Insufficient time to conduct a full visit (HF care is more than just pills).**

-Lack of specialists' support to navigate medical therapy initiation

-**Difficulty in answering patients' questions** (prognosis, safety of certain activities, lifestyle modifications, driving restrictions)

Challenges of HF Follow-up in the community

-**Poor financial incentives for frequent visits**

-**Unease about depriving the patient of specialized assessment and management**

-Learned reliance on the specialist based on previous encounters

-Long specialists wait-time justifies early referral

-Lack of multidisciplinary support at individual family MD offices.

SEAMO Southeastern Academic Medical Organization

Queen's University MEDICINE | NURSING | REHABILITATION THERAPY Faculty of Health Sciences

Kingston Health Sciences Centre Centre des sciences de la santé de Kingston

Hôpital Hotel Dieu Hospital

KGH Hôpital Général de Kingston General Hospital

Chamberlain AM, St Sauver JL, Gerber Y, et al. Multimorbidity in Heart Failure: A Community Perspective. Am J Med. 2015

OUTPATIENT
HEART FAILURE **DIAGNOSIS** ALGORITHM

Kingston Health Sciences Centre
Centre des sciences de la santé de Kingston
Hôpital Hotel Dieu Hospital
KGH Hôpital Général de Kingston General Hospital

Heart Failure Suspected

Initial Clinic Visit

Please note:
Diagnosis and management can occur simultaneously in patients who are symptomatic with a high suspicion for HF. See management algorithm (click here to go to management algorithm).

Clinical Assessment

History

- Duration of symptoms.
- SOB/orthopnea/PND
- Fatigue/weakness
- Dependent edema
- Weight gain
- Abdominal distension
- Exercise intolerance
- Cough
- Cool extremities
- Chest pain
- Palpitations
- Syncope

Physical

- Mental status
- Heart rate
- Heart rhythm
- Blood pressure
- SpO2
- Weight
- Heart sounds
- Murmurs?
- Elevated JVP?
- Crackles?
- Pitting edema?
- Abdominal distension?

Red Flags

- SOB at rest
- Hypoxia
- Signs of PE or MI
- Prolonged chest pain.
- Fainting
- Confusion

Emergency Treatment

Advise patient to attend the nearest Emergency Department for assessment. Please follow-up within one week of discharge to reassess suitability for pathway.

Disposition

For Primary Care Providers
You can be eligible for **HF incentive fee code (Q050A - $125)** if the following requirements are met:
1) ≥ 2 visits/year
2) Use guideline-based management (e.g. this pathway)
3) Document clinical progress using flowsheet (link)

Appropriate for Pathway

Patient does not have any red flags. Please order the following testing concurrently.

Expedite your
1) Signs
2) No Ech
3) Positive

Initial Investigations

Echocardiogram/ECG

Please click here for a list of local providers where patients can be referred for standard Transthoracic Echocardiograms and ECGs. **Ask for LV systolic/diastolic function + valvular disease assessment**

Chest X-Ray

Please click here for a list of local providers where patients can be referred for chest X-rays.

NT-pro BNP

All labs will test **NT-proBNP** (not BNP) at no cost to the patient. NTproBNP ≥125 is suggestive of HF.

Other Labs

- CBC (± ferritin)
- Electrolytes, creatinine
- TSH (free T4 if abnormal)
- Hemoglobin A1C, glucose.
- Lipid panel

Echoes for HF diagnosis (Provided within 2 weeks)

If your patient meets the following criteria

1. Has ≥1 HF symptoms AND ≥1 objective finding of HF (edema, crackles, elevated JVP, weight gain, etc)

2. No prior echo within 1 year.

3. Positive **(or pending)** NT proBNP (≥125 ng/L)

April 1st, 2024

SEAMO Southeastern Academic Medical Organization

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Kingston Health Sciences Centre / Centre des sciences de la santé de Kingston

Hôpital Hotel Dieu Hospital

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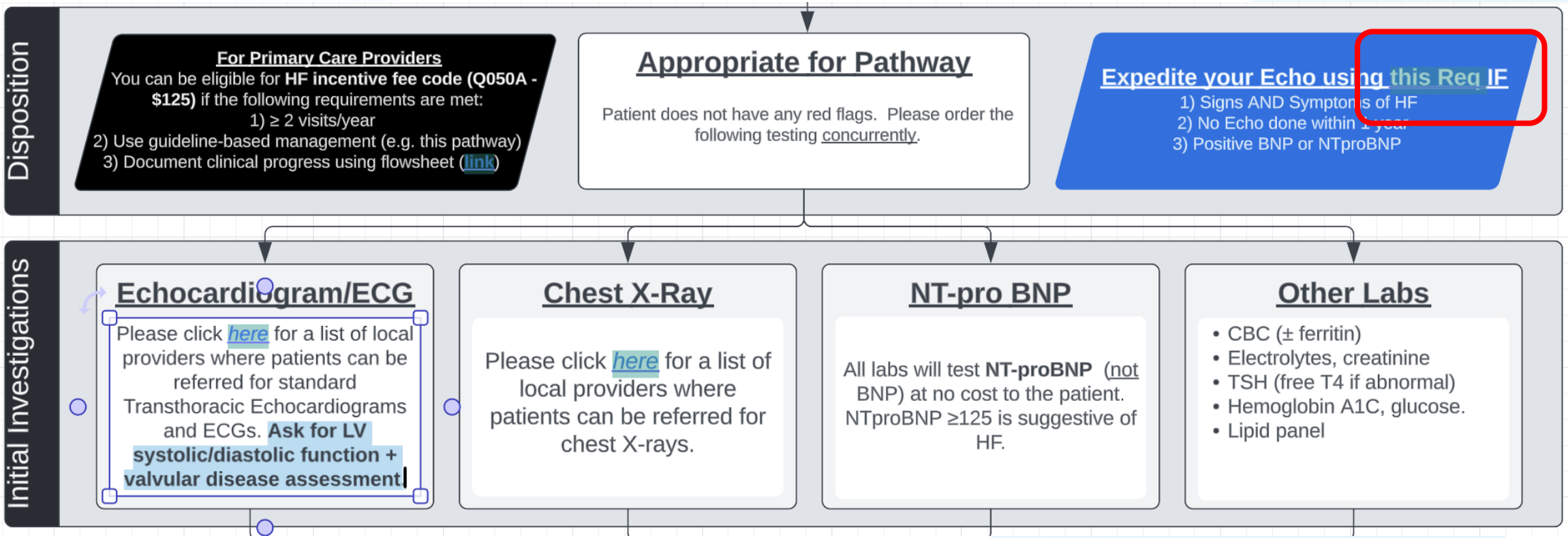
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Appropriate for Pathway
Patient does not have any red flags. Please order the following testing concurrently.
Expedite your Echo using this Req IF
1) Signs AND Symptoms of HF
2) No Echo done within 1 year
3) Positive BNP or NTproBNP
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Please click here for a list of local providers where patients can be referred for standard Transthoracic Echocardiograms and ECGs. Ask for LV systolic/diastolic function + valvular disease assessment
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• Hemoglobin A1C, glucose.
• Lipid panel

Religious Hospitallers of Saint Joseph of the Hotel Dieu of Kingston
HOTEL DIEU HOSPITAL

166 Brock Street
Cardiology, Floor Brock 2
Telephone: 613-544-3400 Ext. 2340
Fax: 613-546-7138

Type of test:

- ☐ Echocardiogram
- ☐ Treadmill Exercise Test
- ☐ Holter Monitor ☐ 48-hour ☐ 24-hour
- ☐ Ambulatory Blood Pressure *(non-insured)*
- ☐ Electrocardiogram
- ☐ Other: _____

KGH KINGSTON GENERAL HOSPITAL

76 Stuart Street
Cardiology, Floor FAPC 3
Telephone: 613-549-6666 Ext. 3980
Fax: 613-548-1387

Type of test:

- ☐ Dobutamine Stress Echocardiogram
- ☐ Treadmill Stress Echocardiogram
- ☐ Transesophagel Echocardiogram
- ☐ Pediatric Echocardiogram
- ☐ Fetal Echocardiogram
- ☐ Other: _____

Clinical information/reason(s) for test:

Please write HF pathway in the requisition

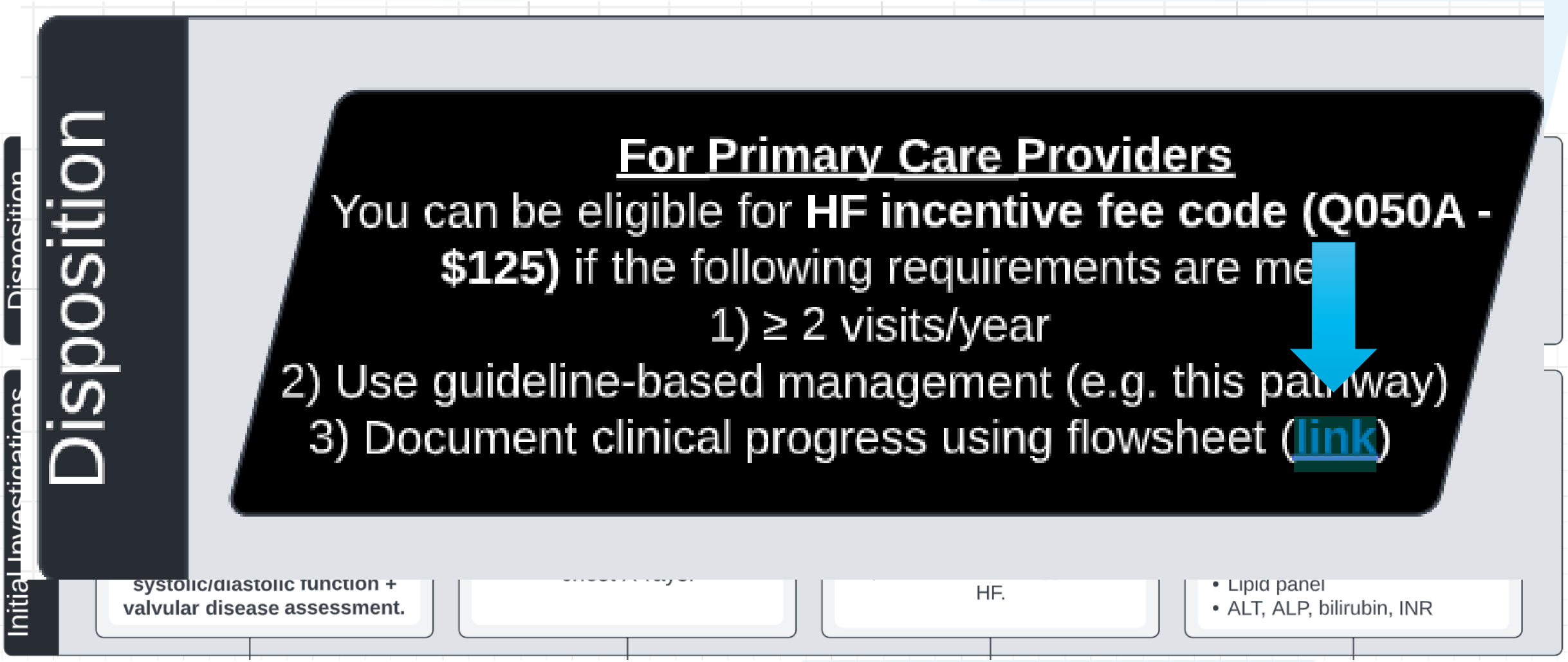
Need Help? 1) Send a HF E-consult *(link)*; answered in <24 hours (will indicate if the patient should be seen in-person).
2) If you have urgent questions: Call 613-544-3400 extension #2569 or #3352 Mon-Friday 9 am-noon time to speak directly to HF NP.

6 months later


ALWAYS FRESH


Show the Inspector
ALWAYS FRESH


ALWAYS FRESH
Awe Almufleh MD
Cardiology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3) Document clinical progress using flowsheet (link)
systolic/diastolic function + valvular disease assessment.
HF.
• Lipid panel
• ALT, ALP, bilirubin, INR

FACT SHEET

Title: **HEART FAILURE MANAGEMENT INCENTIVE**

Date: **April 2008**

<u>Eligible</u> Patient Enrolment Models (PEMs):

- ☑ Family Health Networks (FHNs)
- ☑ Family Health Groups (FHGs)
- ☑ Comprehensive Care Models (CCMs)
- ☑ Group Health Centre (GHC)
- ☑ St. Joseph's Health Centre (SJHC)
- ☑ Family Health Organizations (FHOs)
- ☑ Rural and Northern Physician Group Agreement (RNPGA)
- ☑ South Eastern Ontario Academic Medical Organization (SEAMO)
- ☑ Community Health Center (CHC)
- ☑ Community Sponsored Agreement Blended Salary Model (BSMs)

Appendix E, Section 3.2 of the Memorandum of Agreement (MOA) between the Ministry of Health and Long-Term Care and the Ontario Medical Association (OMA) includes provisions for a New Chronic Disease Management Incentive effective January 1st, 2008. Information and guidelines on how to submit for the Heart Failure Management Incentive are provided below.

BRITISH COLUMBIA
Ministry of Health

British Columbia
Medical Association

HEART FAILURE
PATIENT CARE FLOW SHEET

This Flow Sheet is based on the Heart failure Guideline
Web site: http://www.healthservices.gov.bc.ca/cdm/index.html

NAME OF PATIENT	BIRTHDATE
COMORBID CONDITIONS	PHN
	DATE OF DIAGNOSIS

CRITERIA FOR DIAGNOSIS (EJECTION FRACTION BY ECHOCARDIOGRAM RECOMMENDED – SEE GUIDELINE)

		REVIEW EACH VISIT	GOALS	INITIAL REVIEW (BASELINE)	DATE (YY/MM/DD)				
PHYSIOLOGY		Blood Pressure							
		Weight (diary)							
		NYHA class							
		Sodium intake							
		Fluid intake							
		Activity Level							
MEDICATIONS/EFFECTS +/-	Target dose	ACE-inhibitor							
		B-blocker							
		ARB							
	Other								
LABOR-ATORY	On-going	Na							
		K							
		Creatinine							

EDUCATION REMINDERS

- ❑ Explain what heart failure is and what causes it
- ❑ Set goals with patient
- ❑ How to recognize and deal with symptoms
- ❑ Self-weighing
- ❑ Rationale of treatments and importance of adherence
- ❑ Flu Vaccination (annual) Date:
- ❑ Side effects and adverse effects
- ❑ Prognosis
- ❑ Pneumococcal Vaccination
- ❑ Avoid excessive alcohol
- ❑ Stop smoking

Refer to patient resource sheet and Guideline

CLINICAL EVALUATION

VISIT 1

VISIT 2

VISIT 3

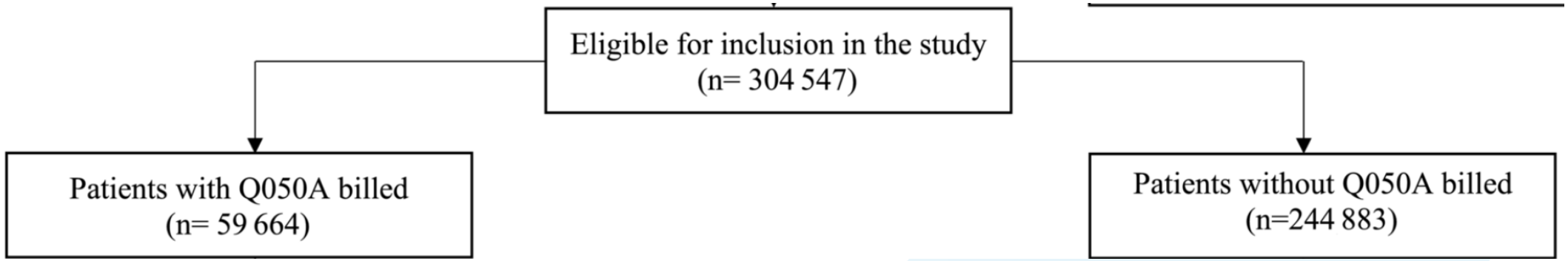
VISIT 4

NOTES

HLTH-BCMA 1002 (May 2003)

Association of a Heart Failure Management Incentive in Primary Care With Clinical Outcomes: A Retrospective Cohort Study

Harsukh Benipal, MSc, BHSc ; Catherine Demers, MD, MSc ; Joshua O. Cerasuolo, MSc ; Richard Perez, PhD, MSc; John J. You, MD, MSc; Faizan Amin, MD, MSc ; Karim Keshavjee, MD, MBA, CCFP, CPHIMS; Douglas S. Lee, MD, PhD



<15% are using Q050 code for HF

OUTPATIENT
HEART FAILURE **MANAGEMENT** ALGORITHM

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Patient FAQs (link)

Heart Failure Diagnosed/Clinically suspected

Assess Suitibility to Remain on Pathway

Alarm Features
- Worsening dyspnea *(despite diuretic escalation).*
- *Edema* + Weight gain (2kg in 2 days or 2.5kg in 1 week).
- *Symptomatic* low BP (SBP less than 90 mmHg).
- Persistent postural lightheadedness *(despite decreasing diuretics).*
- *Unexplained tachycardia/increased HR above baseline*

Patient requires in-person visit + blood work within 1-2 week.

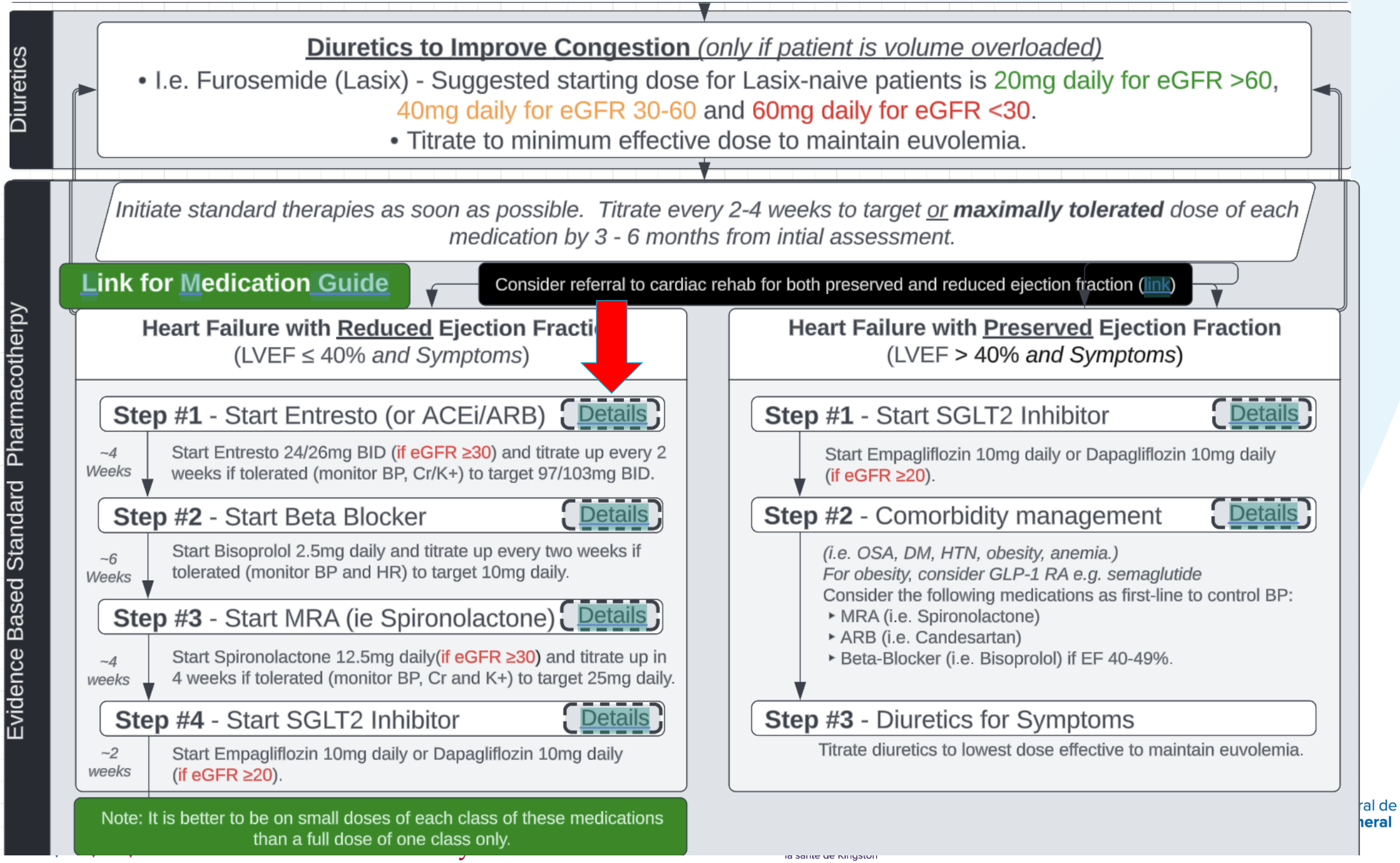
If patient is elderly or frail, consider home and community care

Click here for community resources

Assess Patient
- Confirm diagnosis **(see Dx pathway)**
- Presence of red flags?
- Degree of shortness of breath (*NYHA Class*)
- Volume overload symptoms (PND, orthopnea, abdominal and/or leg swelling)
- Hypovolemia symptoms (orthostatic dizziness, excess thirst, concentrated urine, low BP, decreased weightt)
- Change in symptoms (better/worse?)
- BP and HR (sitting and standing), weight, O2 sat
- JVP, crackles, ascites, peripheral edema.
- Serum creatinine/eGFR, sodium, potassium.
- NT-proBNP
- Echocardiogram

Red Flags
- SOB at rest
- Hypoxic
- Signs of PE or MI
- Prolonged chest pain
- Fainting
- Confusion

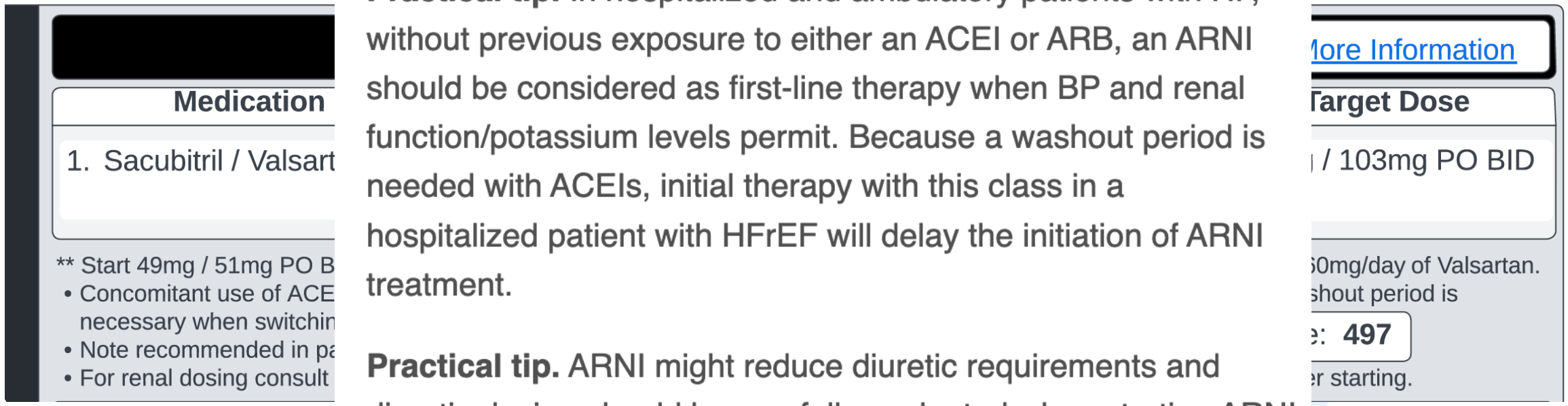
Call EMS

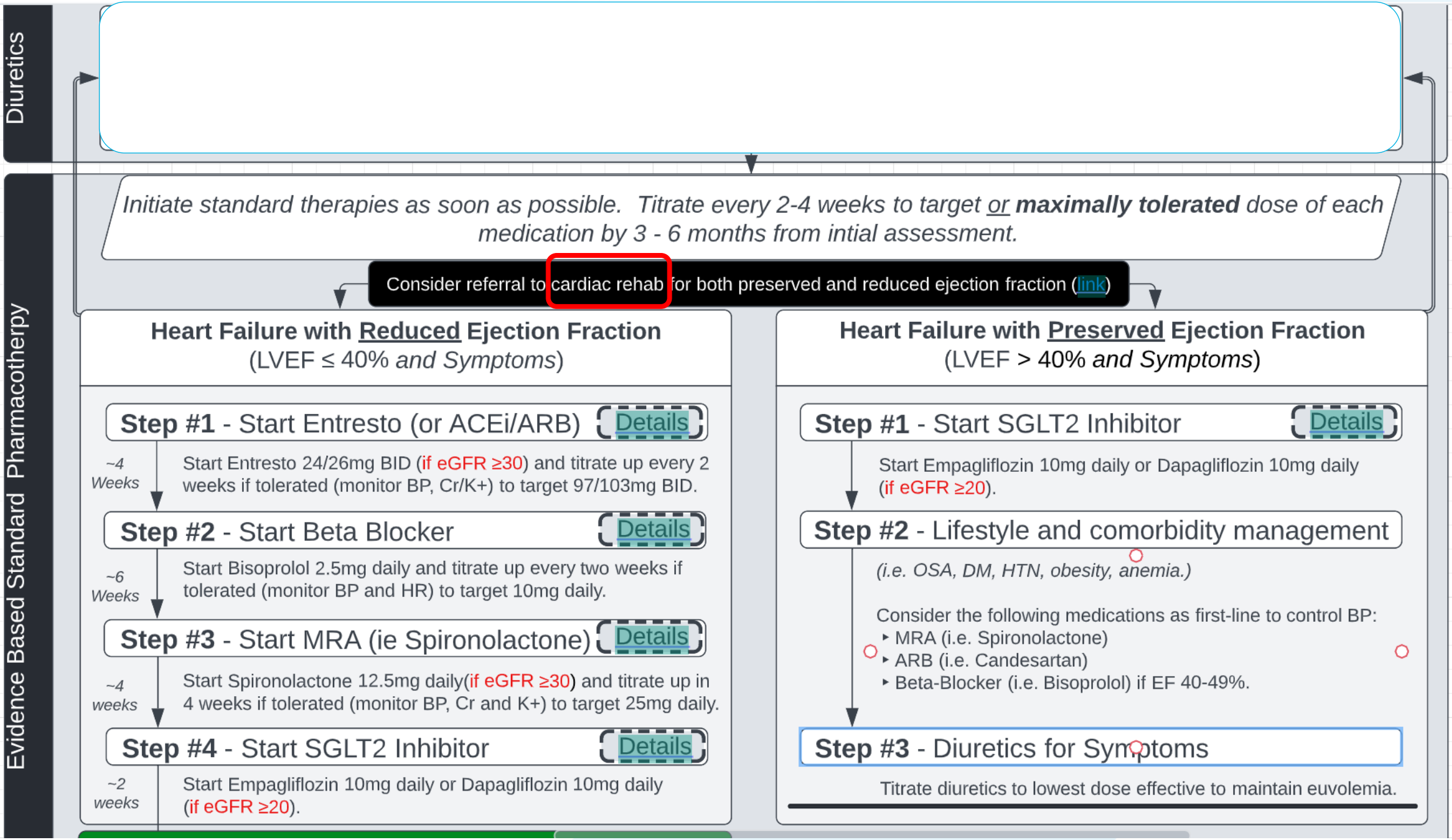

Diuretics
Diuretics to Improve Congestion (only if patient is volume overloaded)
• I.e. Furosemide (Lasix) - Suggested starting dose for Lasix-naive patients is 20mg daily for eGFR >60, 40mg daily for eGFR 30-60 and 60mg daily for eGFR <30.
• Titrate to minimum effective dose to maintain euvolemia.
Evidence Based Standard Pharmacotherpy
Initiate standard therapies as soon as possible. Titrate every 2-4 weeks to target or maximally tolerated dose of each medication by 3 - 6 months from intial assessment.
Link for Medication Guide
Consider referral to cardiac rehab for both preserved and reduced ejection fraction (link)
Heart Failure with Reduced Ejection Fracti
(LVEF ≤ 40% and Symptoms)
Step #1 - Start Entresto (or ACEi/ARB) Details
~4 Weeks
Start Entresto 24/26mg BID (if eGFR ≥30) and titrate up every 2 weeks if tolerated (monitor BP, Cr/K+) to target 97/103mg BID.
Step #2 - Start Beta Blocker Details
~6 Weeks
Start Bisoprolol 2.5mg daily and titrate up every two weeks if tolerated (monitor BP and HR) to target 10mg daily.
Step #3 - Start MRA (ie Spironolactone) Details
~4 weeks
Start Spironolactone 12.5mg daily(if eGFR ≥30) and titrate up in 4 weeks if tolerated (monitor BP, Cr and K+) to target 25mg daily.
Step #4 - Start SGLT2 Inhibitor Details
~2 weeks
Start Empagliflozin 10mg daily or Dapagliflozin 10mg daily (if eGFR ≥20).
Note: It is better to be on small doses of each class of these medications than a full dose of one class only.
Heart Failure with Preserved Ejection Fraction
(LVEF > 40% and Symptoms)
Step #1 - Start SGLT2 Inhibitor Details
Start Empagliflozin 10mg daily or Dapagliflozin 10mg daily (if eGFR ≥20).
Step #2 - Comorbidity management Details
(i.e. OSA, DM, HTN, obesity, anemia.)
For obesity, consider GLP-1 RA e.g. semaglutide
Consider the following medications as first-line to control BP:
▸ MRA (i.e. Spironolactone)
▸ ARB (i.e. Candesartan)
▸ Beta-Blocker (i.e. Bisoprolol) if EF 40-49%.
Step #3 - Diuretics for Symptoms
Titrate diuretics to lowest dose effective to maintain euvolemia.

Practical tip. In patients suitable for switching to an ARNI, an ACEI can be discontinued at the time of hospital admission enabling ARNI prescription at 36 hours after admission. A 36 hour wash-out period is not necessary for those receiving ARB therapy at the time of hospitalization.

Practical tip. In hospitalized and ambulatory patients with HF, without previous exposure to either an ACEI or ARB, an ARNI should be considered as first-line therapy when BP and renal function/potassium levels permit. Because a washout period is needed with ACEIs, initial therapy with this class in a hospitalized patient with HFrEF will delay the initiation of ARNI treatment.

Practical tip. ARNI might reduce diuretic requirements and diuretic dosing should be carefully evaluated when starting ARNI therapy.

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Consider referral to cardiac rehab for both preserved and reduced ejection fraction (link)
Heart Failure with Reduced Ejection Fraction
(LVEF ≤ 40% and Symptoms)
Step #1 - Start Entresto (or ACEi/ARB) Details
~4 Weeks
Start Entresto 24/26mg BID (if eGFR ≥30) and titrate up every 2 weeks if tolerated (monitor BP, Cr/K+) to target 97/103mg BID.
Step #2 - Start Beta Blocker Details
~6 Weeks
Start Bisoprolol 2.5mg daily and titrate up every two weeks if tolerated (monitor BP and HR) to target 10mg daily.
Step #3 - Start MRA (ie Spironolactone) Details
~4 weeks
Start Spironolactone 12.5mg daily(if eGFR ≥30) and titrate up in 4 weeks if tolerated (monitor BP, Cr and K+) to target 25mg daily.
Step #4 - Start SGLT2 Inhibitor Details
~2 weeks
Start Empagliflozin 10mg daily or Dapagliflozin 10mg daily (if eGFR ≥20).
Heart Failure with Preserved Ejection Fraction
(LVEF > 40% and Symptoms)
Step #1 - Start SGLT2 Inhibitor Details
Start Empagliflozin 10mg daily or Dapagliflozin 10mg daily (if eGFR ≥20).
Step #2 - Lifestyle and comorbidity management
(i.e. OSA, DM, HTN, obesity, anemia.)
Consider the following medications as first-line to control BP:
MRA (i.e. Spironolactone)
ARB (i.e. Candesartan)
Beta-Blocker (i.e. Bisoprolol) if EF 40-49%.
Step #3 - Diuretics for Symptoms
Titrate diuretics to lowest dose effective to maintain euvolemia.

OUTPATIENT HEART FAILURE MANAGEMENT ALGORITHM

Kingston Health Sciences Centre
Centre des sciences de la santé de Kingston

Patient FAQs (link)

Heart Failure Diagnosed/Cli

Assess Suitibility to Remain on Pathway

Alarm Features

- Worsening dyspnea *(despite diuretic escalation).*
- *Edema* + Weight gain (2kg in 2 days or 2.5kg in 1 week).
- *Symptomatic* low BP (SBP less than 90 mmHg).
- Persistent postural lightheadedness *(despite decreasing diuretics).*
- *Unexplained tachycardia/increased HR above baseline*

Patient requires in-person visit + blood work within 1-2 week.

If patient is elderly or frail, consider home and community care

Click here for community resources

Asse

- Confirm diagnosis (
- Presence of red flag
- Degree of shortness
- Volume overload sy abdominal and/or le
- Hypovolemia sympt excess thirst, conce decreased weightt)
- Change in symptom
- BP and HR (sitting a
- JVP, crackles, ascite
- Serum creatinine/eG
- NT-proBNP
- Echocardiogram

Red Flags

- SOB at rest
- Hypoxic
- Signs of PE or MI
- Prolonged chest pain
- Fainting
- Confusion

- **What is the prognosis of my condition? What are the chances that I would survive heart failure?**

Heart failure is *not a death sentence*! With medications and lifestyle modification, many patients can live a long life. The prognosis (chance of survival) varies substantially based on many factors including the degree of heart weakness, the burden of symptoms, kidney function, anemia, ability to take heart medications etc. Even with the knowledge of all of the above factors, accurate prediction of survival is difficult/at times impossible. Rather than becoming preoccupied with predictions, many patients find solace in the fact that there are many things ***THEY* can** do to improve their condition and lead fulfilling lives. See the next question.

- **How much activity is too much, will I harm my heart if I go up and down the stairs?**

Having heart failure does not mean restricting activity. In fact, exercise is essential to help strengthen the heart. It helps increase energy levels and makes the whole body healthier. Studies show that moderate exercise helps decrease the risk for needing hospitalization for worsening heart failure.

<u>Benefits of exercise</u>

- **Can I have sex?**

It is normal for patients with heart failure (and their partners) to feel anxious about resuming sexual activity. Sexual activity is not dangerous to your heart. In general, if you can walk up two flights of stairs or walk briskly, you can resume your regular sexual activity. The following tips may be helpful:

- Engage in sex when you are well-rested and relaxed.
- Avoid sex after eating a big meal or drinking alcohol.
- Have sex in a comfortable room that is not too hot or too cold.
- Choose less stressful positions and techniques.

- **Can I drink a glass of wine?**

For most patients with stable heart failure, drinking 1 glass of wine every once in a while, (few days a month for example) should be okay as long as you keep track of the total fluids that you drink trying not to exceed 2 liters per day. In some cases, heavy alcohol use is the cause of heart failure therefore your health care team may advise you to abstain from alcohol completely. Also, if you are having worsening symptoms of heart failure (shortness of breath with minimal exertion and increasing leg swelling), then it is best to avoid alcohol until your symptoms improve.

- **My healthcare provider started me on blood pressure medication, but my blood pressure is normal. Why was this done?**

- **I feel fine, why does my healthcare provider keep adding more medications for my heart?**

Heart failure patients will need multiple medications. Some medications are intended to relieve shortness of breath/swelling and some are used to strengthen the heart. Even after heart function recovery, most patients will need these medications for the rest of their lives to keep their heart strong. Do not be discouraged, however! After adequate treatment of heart failure, most patients feel much better, have more energy, become less short of breath and are able to enjoy their lives. Taking medications become part of their routine and does not interfere with their activities. Also, once the body adopts to taking these medications, the side effects which may have been felt in the beginning often disappear. Some heart failure patients work in heavy manual jobs like construction, farming, and athletics and are not limited by their disease (as long as it is well controlled with medications and receive clearance from their healthcare providers).

Heart Failure Medications: A Patient & Caregiver Guide

Understanding Guideline-Directed Medical Therapy for Heart Failure with reduced ejection fraction (HFrEF)

CHFS SCIC

Canadian Cardiovascular Society

HeartLife FOUNDATION

The Heart Hub
Learn. Connect. Empower.

CHFS SCIC

Canadian Cardiovascular Society

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ARNI, ACEi, ARBs

Commonly used drugs:[3]

ARNI Sacubitril-valsartan (Entresto™)

ACEi (*"prils"*) Perindopril, ramipril

ARB (*"sartans"*) Candesartan, valsartan

How they work:

They reduce salt and water retention and open up blood vessels. This makes it easier for your heart to pump blood to your body.

What to watch out for:

- Symptoms of low blood pressure.[4]
- ACEi and ARNI may cause a dry cough.
- Routine bloodwork to check kidney function and potassium (risk of high potassium).

Suspect CHF

CXR

NT pro BNP

Expedited Echo

Spoke/community

- Prevention
- Early diagnosis
- Managing risk factors
- Initiate management

Diagnosed CHF

Primary Care
+/- BEST CARE

Acute Care

Ambulatory Care

Patient symptoms worsen

Patient meets referral criteria

KHSC ED
+/- Admission

Community Paramedics

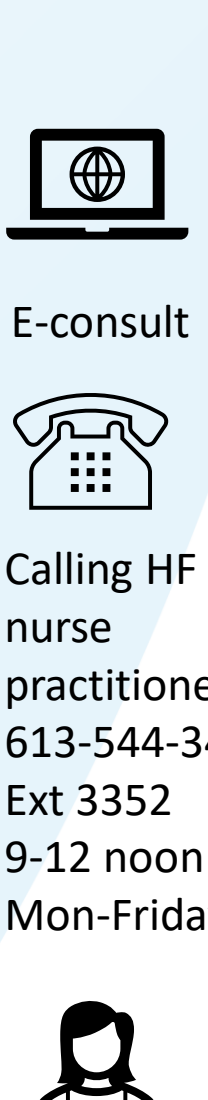
Unstable

Community Cardiology

KHSC HF Clinic

Followed by HF Clinic

LACGH HF Clinic



E-consult

Calling HF nurse practitioners
613-544-3400
Ext 3352
9-12 noon
Mon-Friday

HF Physician Assistant

Indications for Referral and Appropriate Referral Destination

Community Cardiology

- **HF with new or worsening chest pain concerning for ischemia.**
- HF with persistent NYHA class III/IV (advanced symptoms) despite optimal medical therapy (consider e-consult for second line treatments).
- HF with persistent HR <50 or systolic BP <90 with symptoms.
- Persistent congestive symptoms despite high diuretic dose (≥Lasix 160 mg daily).

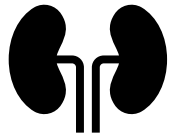
Click here for Community Cardiology referral instructions.

- Ischemia
- valvular disease
- arrhythmia

Heart Function Clinic

- **≥2 hospitalizations for decompensated heart failure in the past year.**
- Moderate-to-severe or severe valvular heart disease for discussion of valve intervention/optimized medical management.
- Patients with LVEF less than 35% after ≥3 monthths of optimal medical therapy to consider implantable cardioverter defibrillator (ICD) and/or cardiac resynchronization therapy (CRT).
- HF with worsening kidney disease (baseline eGFR<30 or increase in creatinine by ≥30% with diuresis or medical therapy).

Click here for Heart Function Clinic referral instructions.



kingstonhsc.ca/refer-patient-khsc/care-management-pathways

Care Management Pathways

Clinical pathways provide information on diagnosis, management and referral of patients for specific conditions.

Below is a reference list of pathways that have been launched at KHSC.

Quick Reference List

Cardiology - Heart Failure

Endocrinology - Thyroid

General Internal Medicine – Iron Deficiency Anemia

Gastroenterology – Chronic Diarrhea

Gastroenterology – Dyspepsia

SEAMO Southeastern Academic Medical Organization

Queen's University MEDICINE | NURSING | REHABILITATION THERAPY Faculty of Health Sciences

Kingston Health Sciences Centre Centre des sciences de la santé de Kingston

Hôpital Hotel Dieu Hospital

KGH Hôpital Général de Kingston General Hospital

Support and Questions

Need Help? 1) Send a HF E-consult *(link)*; answered in <24 hours (will indicate if the patient should be seen in-person).
2) If you have urgent questions: Call 613-544-3400 extension #2569 or #3352 Mon-Friday 9 am-noon time to speak directly to HF NP.

Primary Care Engagement

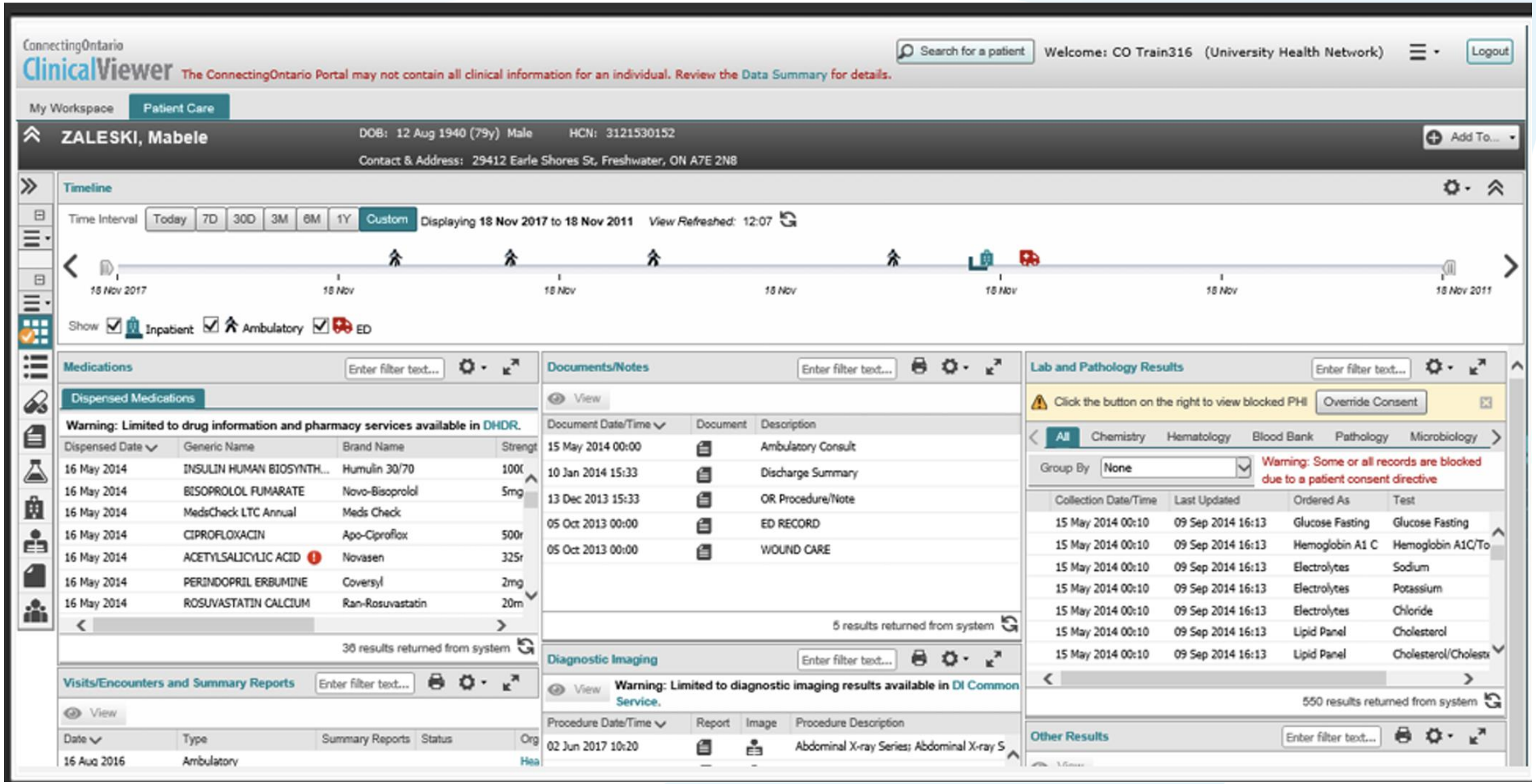
- Mass emails
- Fax to all practices
- Primary care council announcement
- Lunch time sessions


HF and COPD care at Kingston FLA
~ 18,000 patients with COPD or HF at FLA
>1000 hospitalizations/year (418 HF + 628 COPD)
Cost ~ $10,000/admission
Length of stay 6-10 days
35% see physician within 7 days of discharge (ON 40%)
SEAMO
KQH
EXIT


EARN
CME
CREDITS
ABC
AMA PRA CATEGORY 1 CREDITS™
QR code below to access the session survey:
EXIT
CATARAQUI GOLF & COUNTRY CLUB
FOUNDED 1917

Support and Questions

Need Help? 1) Send a HF E-consult *(link)*; answered in <24 hours (will indicate if the patient should be seen in-person).
2) If you have urgent questions: Call 613-544-3400 extension #2569 or #3352 Mon-Friday 9 am-noon time to speak directly to HF NP.


ConnectingOntario
ClinicalViewer
The ConnectingOntario Portal may not contain all clinical information for an individual. Review the Data Summary for details.
Search for a patient
Welcome: CO Train316 (University Health Network)
Logout
My Workspace
Patient Care
ZALESKI, Mabele
DOB: 12 Aug 1940 (79y) Male
HCN: 3121530152
Contact & Address: 29412 Earle Shores St, Freshwater, ON A7E 2N8
Add To...
Timeline
Time Interval
Today
7D
30D
3M
6M
1Y
Custom
Displaying 18 Nov 2017 to 18 Nov 2011
View Refreshed: 12:07
18 Nov 2017
18 Nov
18 Nov
18 Nov
18 Nov
18 Nov
18 Nov 2011
Show
Inpatient
Ambulatory
ED
Medications
Enter filter text...
Dispensed Medications
Warning: Limited to drug information and pharmacy services available in DHDR.
Dispensed Date
Generic Name
Brand Name
Strengt
16 May 2014 INSULIN HUMAN BIOSYNTH... Humulin 30/70 100(
16 May 2014 BISOPROLOL FUMARATE Novo-Bisoprolol 5mg
16 May 2014 MedsCheck LTC Annual Meds Check
16 May 2014 CIPROFLOXACIN Apo-Ciproflox 500r
16 May 2014 ACETYLSALICYLIC ACID Novasen 325r
16 May 2014 PERINDOPRIL ERBUMINE Coversyl 2mg
16 May 2014 ROSUVASTATIN CALCIUM Ran-Rosuvastatin 20m
30 results returned from system
Visits/Encounters and Summary Reports
Enter filter text...
View
Date
Type
Summary Reports
Status
Org
16 Aug 2016 Ambulatory
Documents/Notes
Enter filter text...
View
Document Date/Time
Document
Description
15 May 2014 00:00 Ambulatory Consult
10 Jan 2014 15:33 Discharge Summary
13 Dec 2013 15:33 OR Procedure/Note
05 Oct 2013 00:00 ED RECORD
05 Oct 2013 00:00 WOUND CARE
5 results returned from system
Diagnostic Imaging
Enter filter text...
View
Warning: Limited to diagnostic imaging results available in DI Common Service.
Procedure Date/Time
Report
Image
Procedure Description
02 Jun 2017 10:20 Abdominal X-ray Series: Abdominal X-ray S
Lab and Pathology Results
Enter filter text...
Click the button on the right to view blocked PHI
Override Consent
All
Chemistry
Hematology
Blood Bank
Pathology
Microbiology
Group By
None
Warning: Some or all records are blocked due to a patient consent directive
Collection Date/Time
Last Updated
Ordered As
Test
15 May 2014 00:10 09 Sep 2014 16:13 Glucose Fasting Glucose Fasting
15 May 2014 00:10 09 Sep 2014 16:13 Hemoglobin A1 C Hemoglobin A1C/To
15 May 2014 00:10 09 Sep 2014 16:13 Electrolytes Sodium
15 May 2014 00:10 09 Sep 2014 16:13 Electrolytes Potassium
15 May 2014 00:10 09 Sep 2014 16:13 Electrolytes Chloride
15 May 2014 00:10 09 Sep 2014 16:13 Lipid Panel Cholesterol
15 May 2014 00:10 09 Sep 2014 16:13 Lipid Panel Cholesterol/Cholestx
550 results returned from system
Other Results
Enter filter text...

Example

Interim, I was going to start him on Lasix 20-40 mg as tolerated with repeat labs next week as I suspect the hyponatremia is dilutional due to fluid overload. BP is 137/76 HR 87.

Essentially, I am trying to follow the KHSC heart failure pathway but I certainly do not want to initiate 1+ medications at the same time.

I was hoping if you would be able to guide outpatient while he awaits the appointment with cardiology in person. Given he tolerates Lasix 40 mg well within upcoming 2 weeks, would be start ACE/ARB as next step?

Thank you for your assistance,

Suspect CHF

CXR

NT pro BNP

Expedited Echo

Spoke/community

- Prevention
- Early diagnosis
- Managing risk factors
- Initiate management

Diagnosed CHF

Primary Care
+/- BEST CARE

Acute Care

Ambulatory Care

Patient symptoms worsen

Patient meets referral criteria

KHSC ED
+/- Admission

Unstable

Community Paramedics

Community Cardiology

KHSC HF Clinic

LACGH HF Clinic

Followed by HF Clinic

Ontario Health at Home | Remote Care monitoring

E-consult

Calling HF nurse practitioners
613-544-3400
Ext 3352
9-12 noon
Mon-Friday

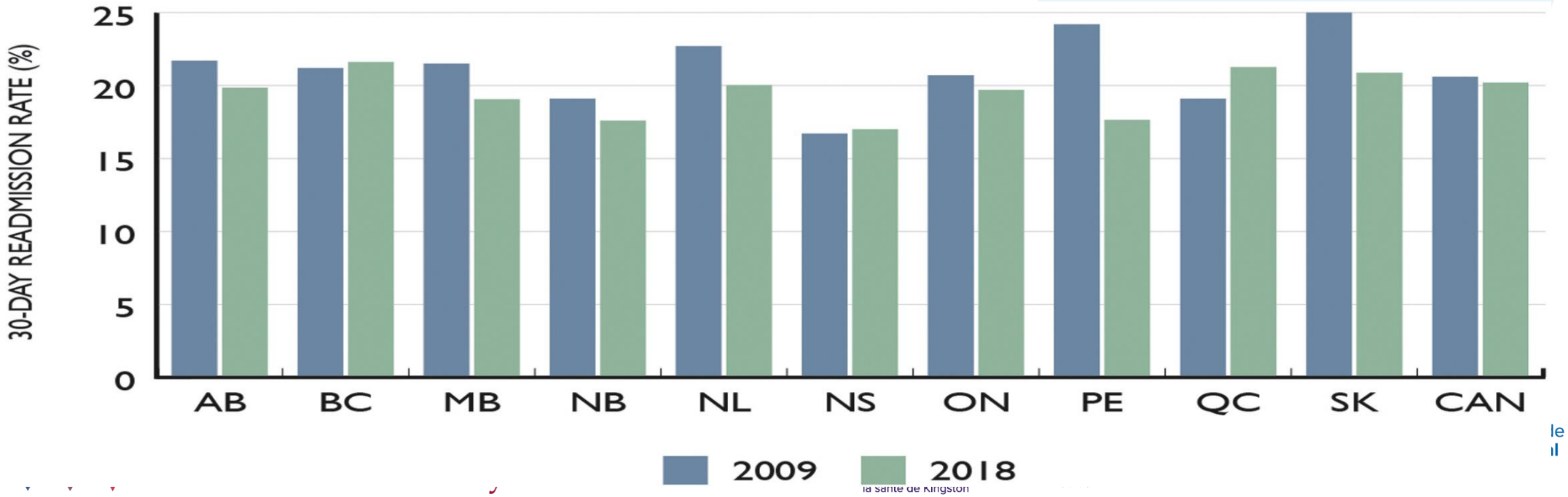
HF Physician Assistant

Heart failure hospitalization

Most common reason for hospitalization in adults > 65 years of age

Cost is high (70% of spending); with poor outcomes (22% risk of death in 1 year)

Despite new therapies, minimal improvements are appreciated in outcomes

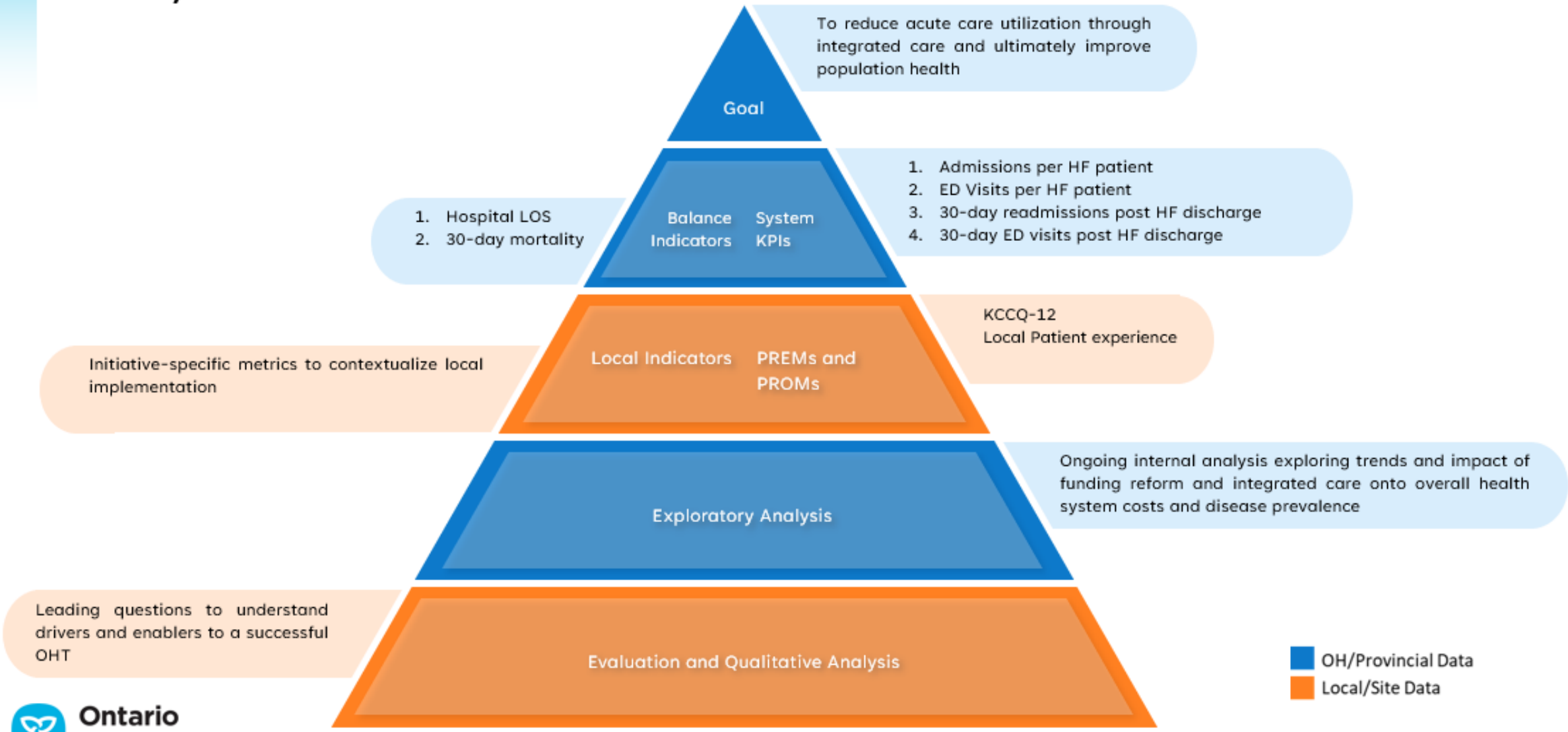


Poon et al, CJC Open 4 (2022) 667e675

.HealthCanada:CanadianChronicDiseaseSurveillanceSystem, https:// health-infobase.canada.ca/ccdss/data-tool/Comp?G¼00&V¼11&M¼5. AccessedOct13,2023.

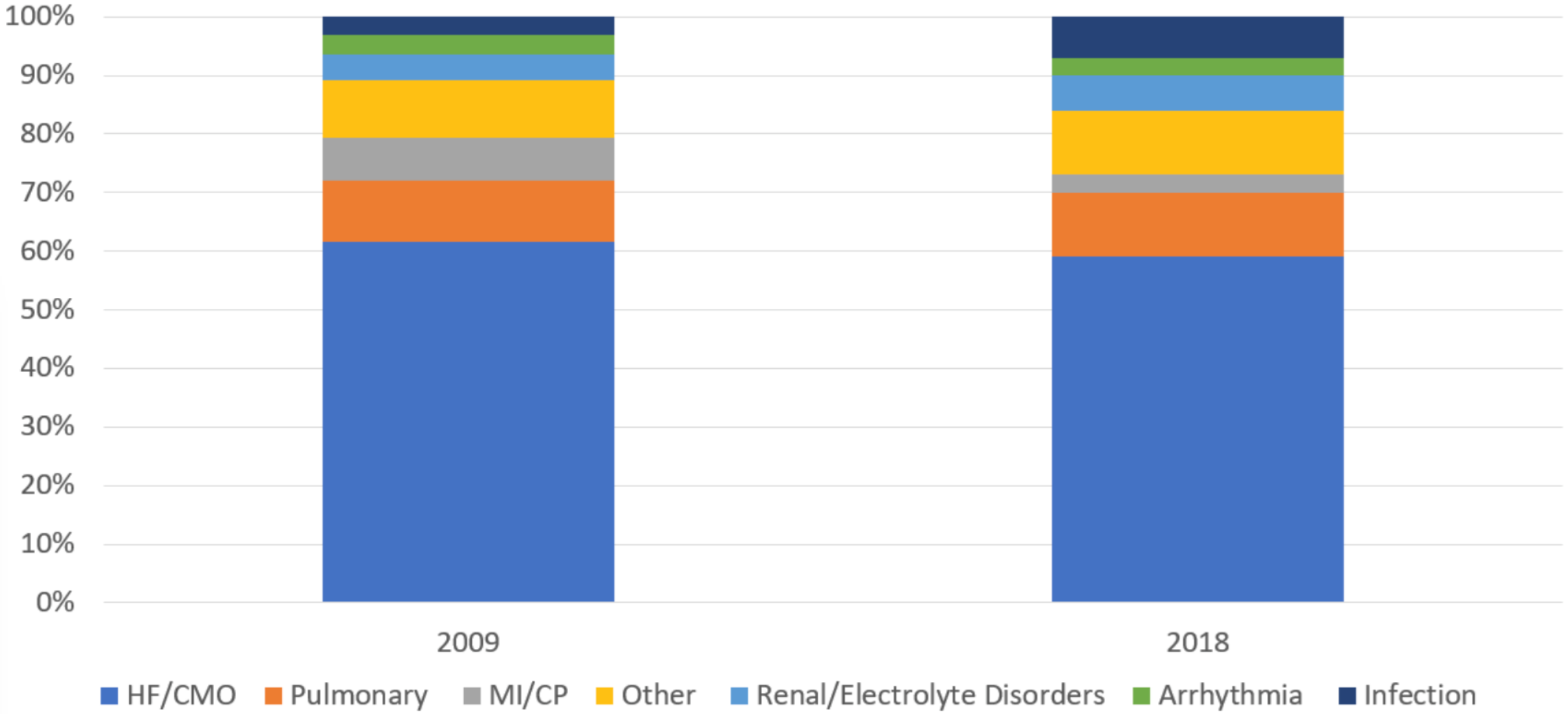
Integrated Measurement & Evaluation Framework

Bird's Eye View



Ontario Health

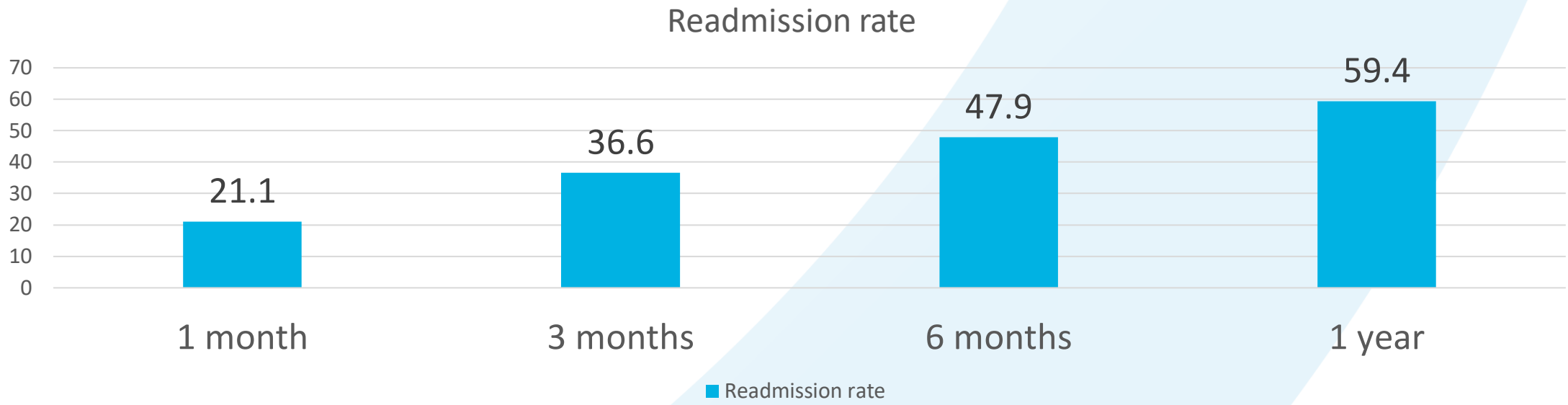
Figure 8 - Reasons for HF re-admissions in 2009 and 2018



SPECIAL ARTICLE

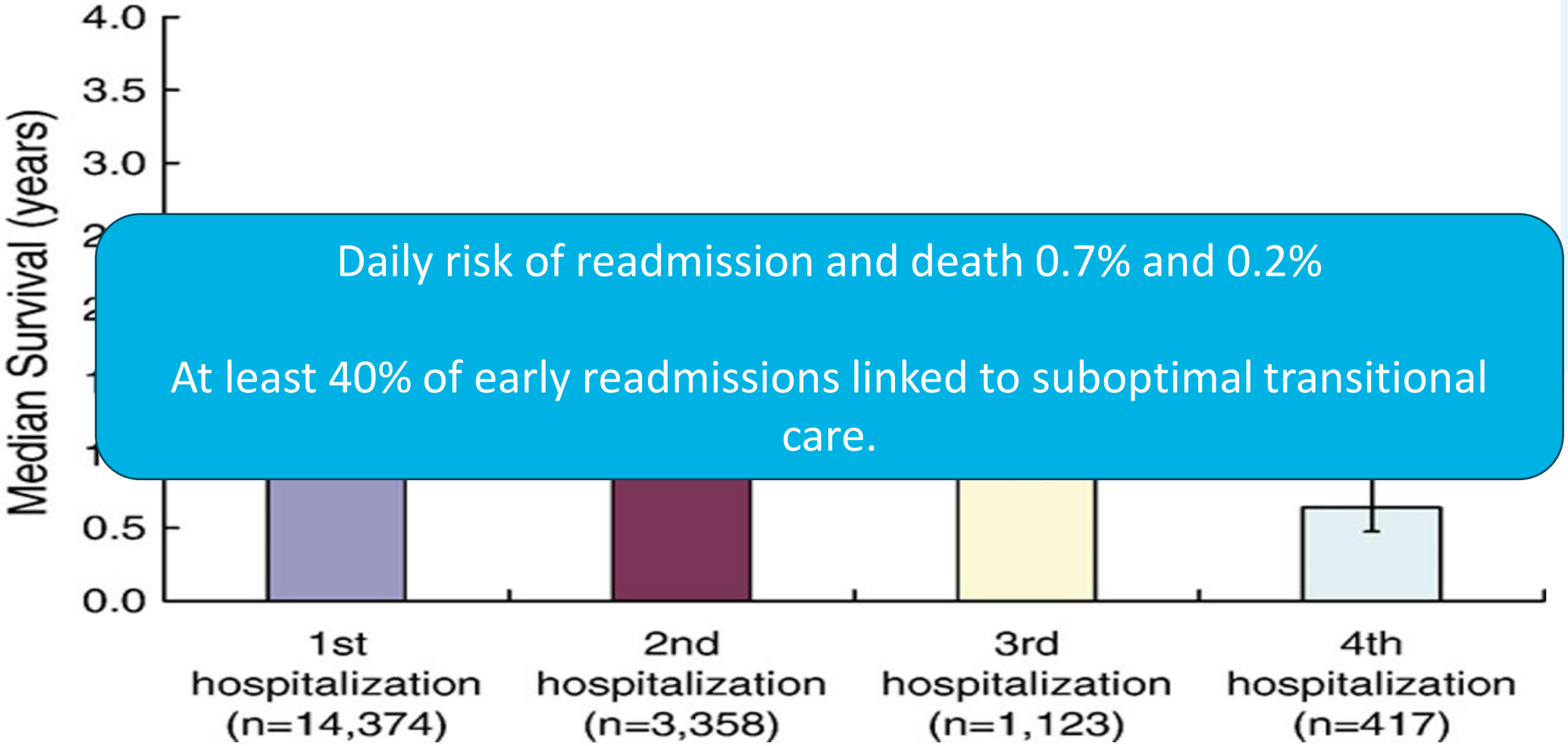
Rehospitalizations among Patients in the Medicare Fee-for-Service Program

Stephen F. Jencks, M.D., M.P.H., Mark V. Williams, M.D., and Eric A. Coleman, M.D., M.P.H.



Jencks et al, JN Engl J Med 2009;360:1418-28.

Whv readmission matter = Increase death



Daily risk of readmission and death 0.7% and 0.2%

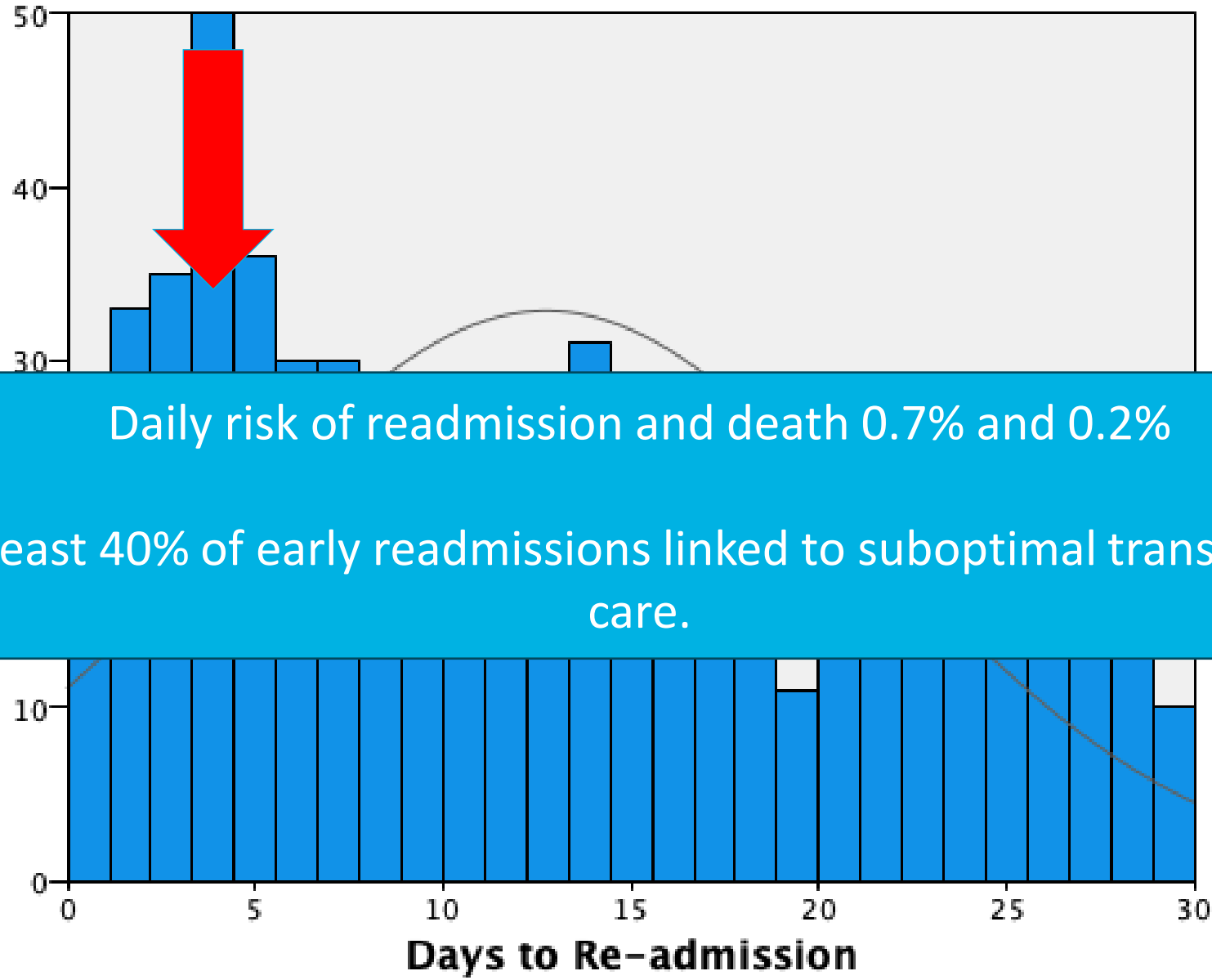
At least 40% of early readmissions linked to suboptimal transitional care.

(Am Heart J 2007;154:26026.)


KCH
BURR
KCH

2166 patients admitted at KHSC from 2019-2023

	Readmission (642)	No readmission (1524)
Age	74.7+/- 14	79.0+/-12
Gender (female)	319 (48.3%)	793 (53.5%)
Length of stay	8.9 +/-11	10.5 +/- 16
Initial admission to Cardio	267 (41.6%)	653 (42.8%)
Initial admission to critical bed	102 (16%)	299 (20%)
Weekend discharge	83 (13%)	223 (14.6%)
Death within 30 days	140 (21.8%)	10 (0.7%)
BNP	242 (38.0%)	597 (39.0%)
ECG	232 (36.0%)	406 (27.0%)



Daily risk of readmission and death 0.7% and 0.2%

At least 40% of early readmissions linked to suboptimal transitional care.

https://www.acc.org/Education-and-Meetings/Features/HF-Web-Tool

Heart Failure Hospitalization Interactive Decision Pathway

The decision pathway is structured into 5 main nodes: Admission, Trajectory Check, Transition to Oral Therapies, Discharge, and First Follow-Up Visit (Figure 1). This tool contains a precursor section to Admission (Triage in the ED), as well as Palliative care. Although the nodes follow sequentially during an admission, their timing is flexible, and they clearly flow into each other. The trajectory check is a recurring theme rather than a specific event.

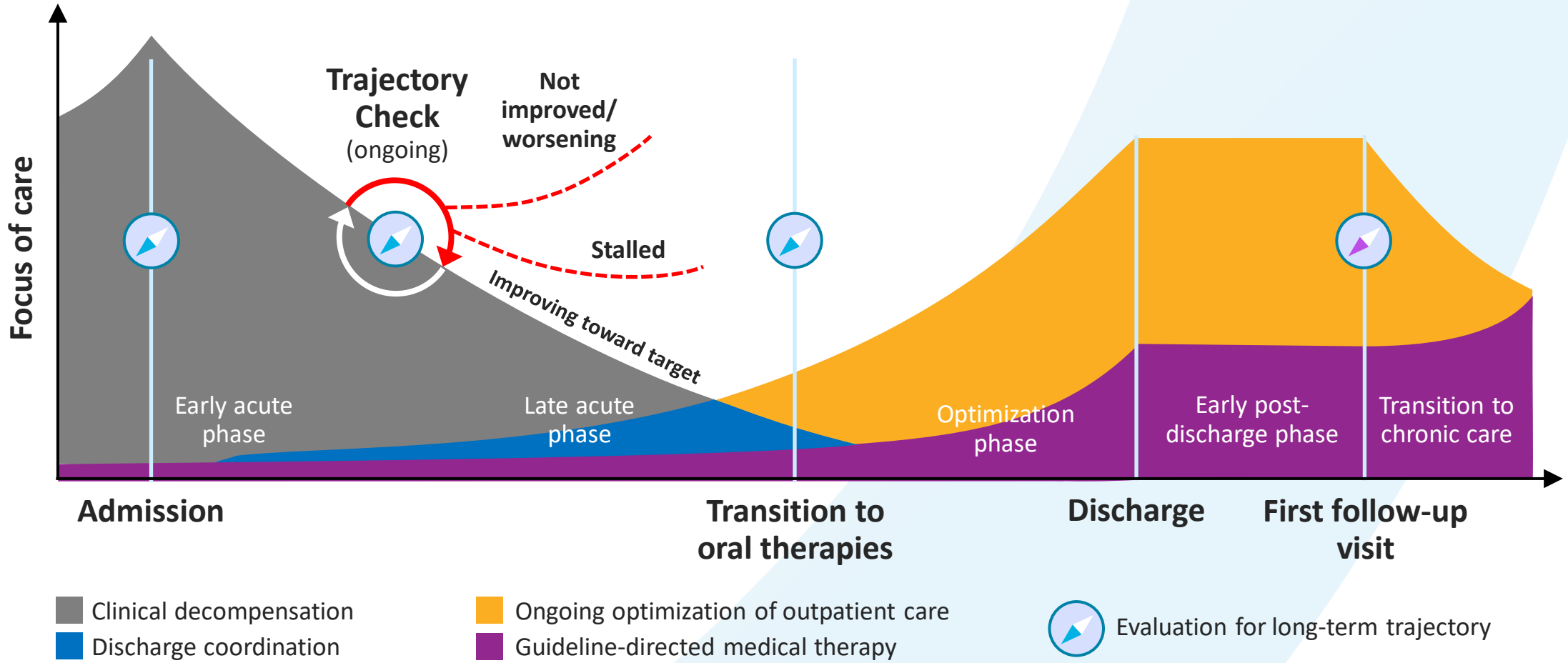
Use this tool to provide structure to the process of assessing the clinical course and planning future therapy by reviewing the timing and key points of each node, relevant figures and tools, and consulting additional supporting text when needed. Information collected at each point would ideally be accessible not only in the hospital, but also in outpatient settings and as a reference point for evaluation of recurrent presentations.

The Complete Tool Pack

HF Hospitalization Toolkit
HF Hospitalization Policy Document

Triage in ED	Admission	Trajectory Check	Transition to Oral Therapies	Discharge Day	Post-Discharge Follow-Up

Pathway to improve HF outcomes begins at admission



Hollenberg SM et al. J Am Coll Cardiol 2019;74(75):1966-2011.

European Journal of Heart Failure (2017) **19**, 1427–1443
doi:10.1002/ejhf.765

RESEARCH ARTICLE

Comparative effectiveness of transitional care services in patients discharged from the hospital with heart failure: a systematic review and network meta-analysis

Harriette G.C. Van Spall[1,2]*, Tahseen Rahman[2], Oliver Mytton[3], Chinthanie Ramasundarahettige[1], Quazi Ibrahim[1], Conrad Kabali[4], Michiel Coppens[5], R. Brian Haynes[2], and Stuart Connolly[1]

All-cause readmissions

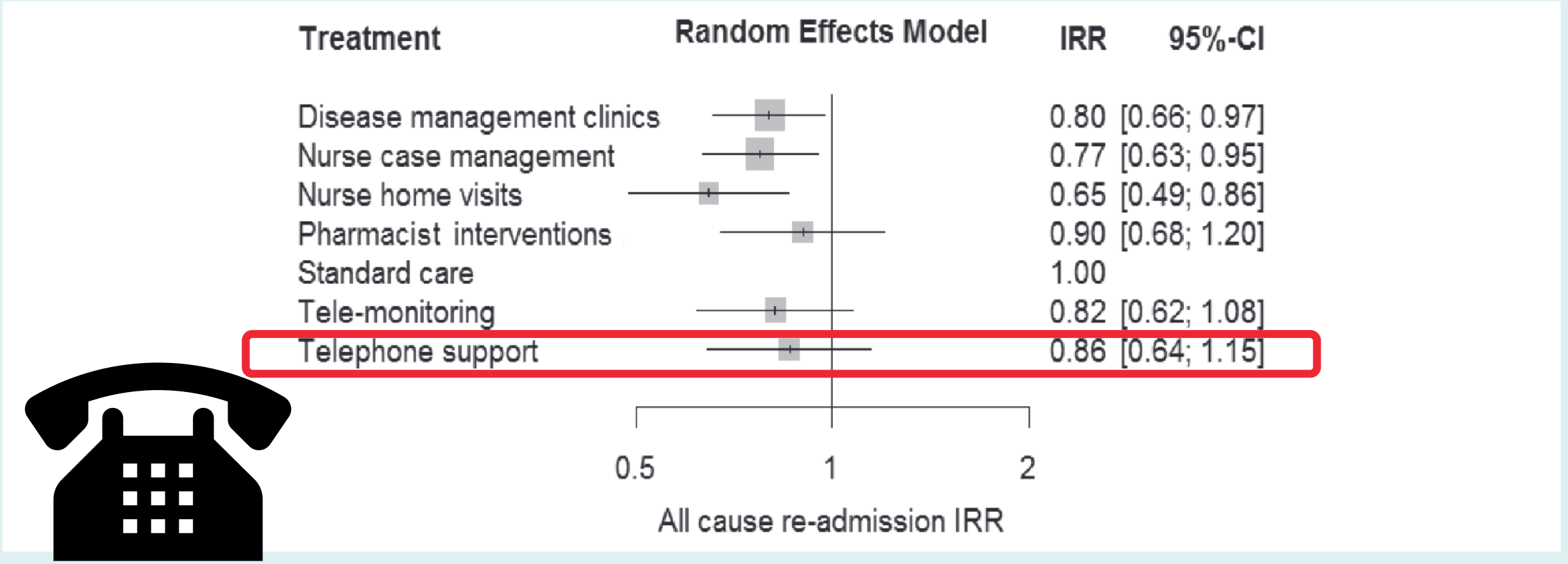


Figure 3 Comparative effectiveness of transitional care services in reducing all-cause readmissions after hospitalization for heart failure. Results of the network meta-analysis are depicted in the forest plot. CI, confidence interval; IRR, incident rate ratio.


Clinical Pearls
Virtual Follow-up
• Ensure patient is taking their medications as prescribed. Ensure they have the correct dosage. Blister packaging is an effective tool.
• Weigh themselves daily, same time, make it a routine.
• BP/HR once daily, make it a routine (?before/after pills).
• Self-evaluation of symptoms. Self care is key (2% of patient's time spent with HC providers).
• To evaluate any symptoms (particularly dyspnea): ""How do they feel in comparison to when they arrived in hospital, how do they feel now in comparison to discharge?

B. Call Documentation (check appropriate)

Consent obtained:	☐ Yes	☐ No *(call discontinued)*	
Call completed with:	☐ Patient	☐ Caregiver (Power of Attorney or Substitute Decision Maker)	
	☐ Healthcare organization or provider		
	☐ Rapid Response Nurse (RRN) visit complete	☐ Patient has no further questions ☐ Patient has further questions, see notes	
Call NOT completed:	☐ Call declined		
	☐ Unable to reach patient and or caregiver after 2 or more attempts	☐ See notes	
Initial Call:	☐ Yes	☐ Follow-up call	

Patient received My Discharge Plan (MDP) prior to discharge:	☐ Yes	☐ No	☐ Can't recall or lost it
Healthcare provider reviewed MDP with patient and or caregiver prior to discharge:	☐ Yes	☐ No	☐ Can't recall

C. Heart Failure Patient

How many pillows do you use to sleep at night?	Choose an item.
Has the # of pillows you use, increased since leaving the hospital?	☐ Yes ☐ No
Do you wake up at night short of breath or gasping to breath?	☐ Yes ☐ No
Has leg swelling increased since leaving the hospital?	☐ Yes ☐ No
Has your weight increased since leaving the hospital?	☐ Yes ☐ No What is your weight today?

Physician Continuity Improves Outcomes for Heart Failure Patients Treated and Released From the Emergency Department

Robinder S. Sidhu, MD,* Erik Youngson, MMATH,† Finlay A. McAlister, MD, MSc*†‡

ABSTRACT

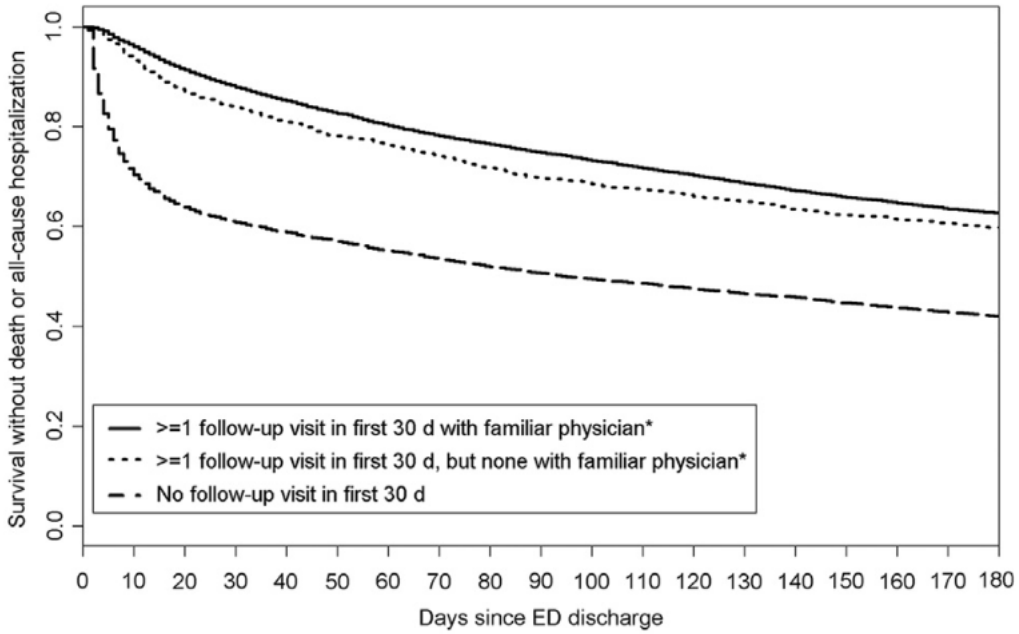


FIGURE 1 Unadjusted Kaplan-Meier Curve for the Time to Death or Hospitalization After Index ED Treat-and-Release Visit, Based on Follow-Up Patterns Within the First 30 Days

Ken Pritchard

When, why and what to do?

Ideally call the office

Remote care monitoring

SEAMO
Southeastern Academic Medical Organization

Queen's University
MEDICINE | NURSING | REHABILITATION THERAPY
Faculty of Health Sciences

Kingston Health Sciences Centre
Centre des sciences de la santé de Kingston

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RESEARCH ARTICLE

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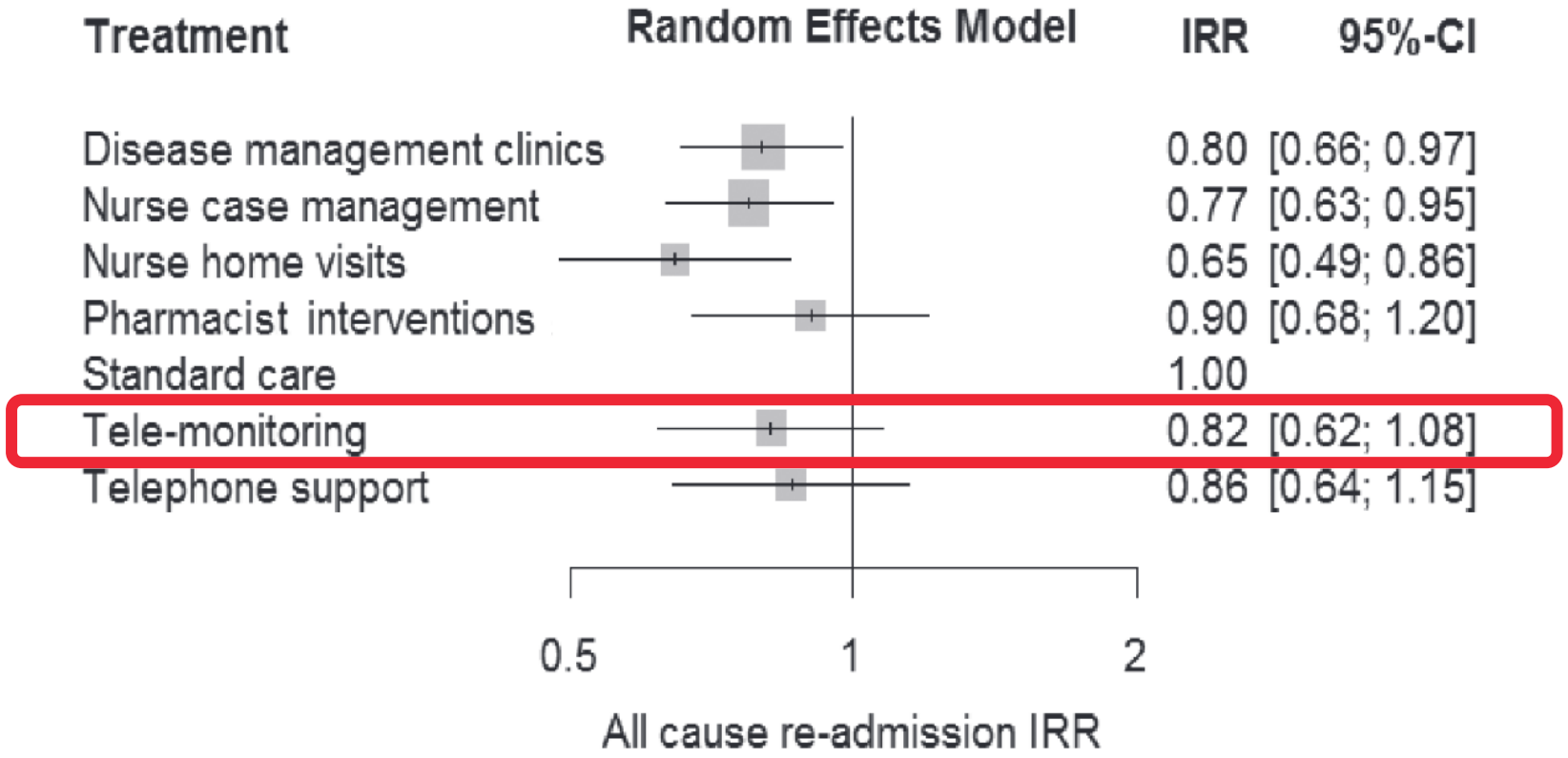
All-cause readmissions



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RESEARCH LETTER · Volume 26, Issue 7, P633-634, July 2020

Download Full Issue

Short-term Outcomes in Ambulatory Heart Failure during the COVID-19 Pandemic: Insights from Pulmonary Artery Pressure Monitoring

Aws Almufleh, MBBS, MPH · Monica Ahluwalia, MD · Michael M. Givertz, MD · ... · Elaine L. Shea, RN CHFN · Mandeep R. Mehra, MBBS, MSc · Akshay S. Desai, MD, MPH ... Show more

Affiliations & Notes Article Info

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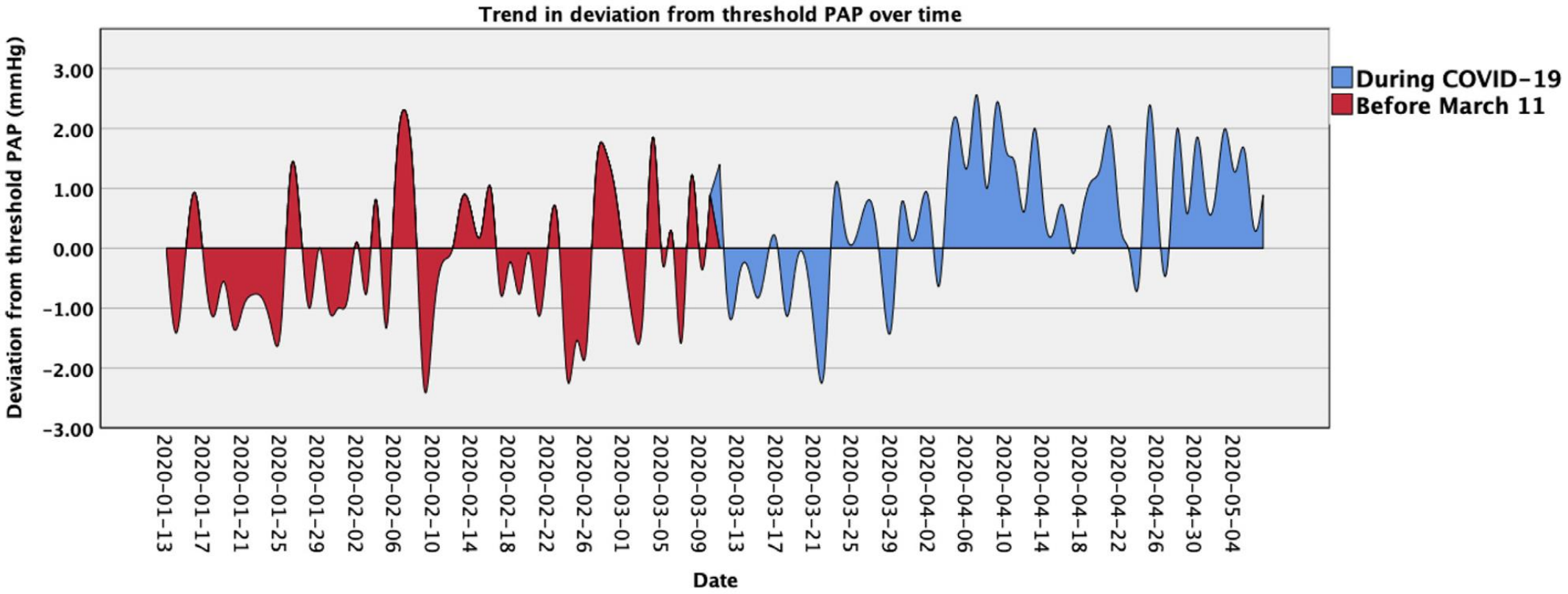


Fig. 1. Area chart showing trend in deviation from threshold pulmonary artery pressure over time. PAP = pulmonary artery pressure.

Remote Care Monitoring - CCAC

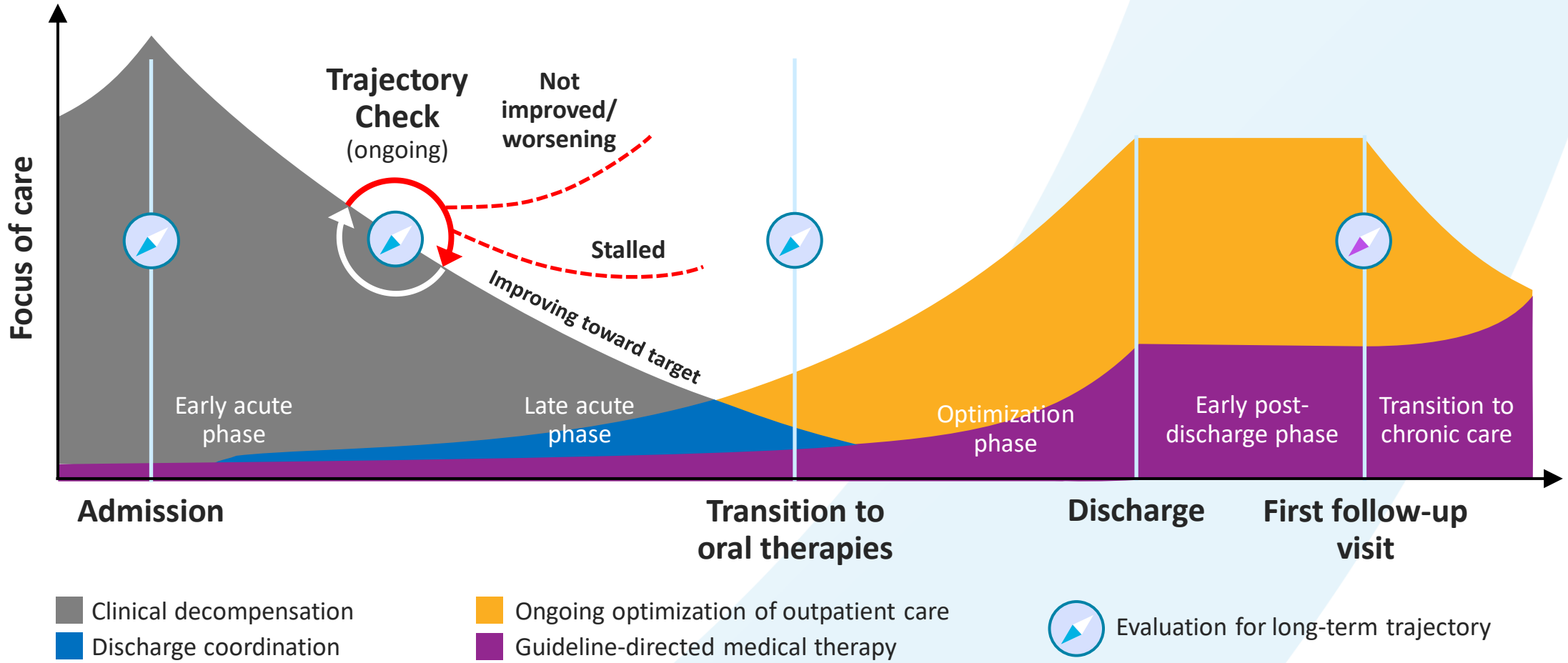
- Consider referring your HF patients for remote care monitoring with CCAC
- Ideal candidates: be comfortable using iPad/iPhone or have a support person to help

Central Access at 1-613-544-8200 ext. 4289.

Referrals are faxed to 1-866-839-7299.

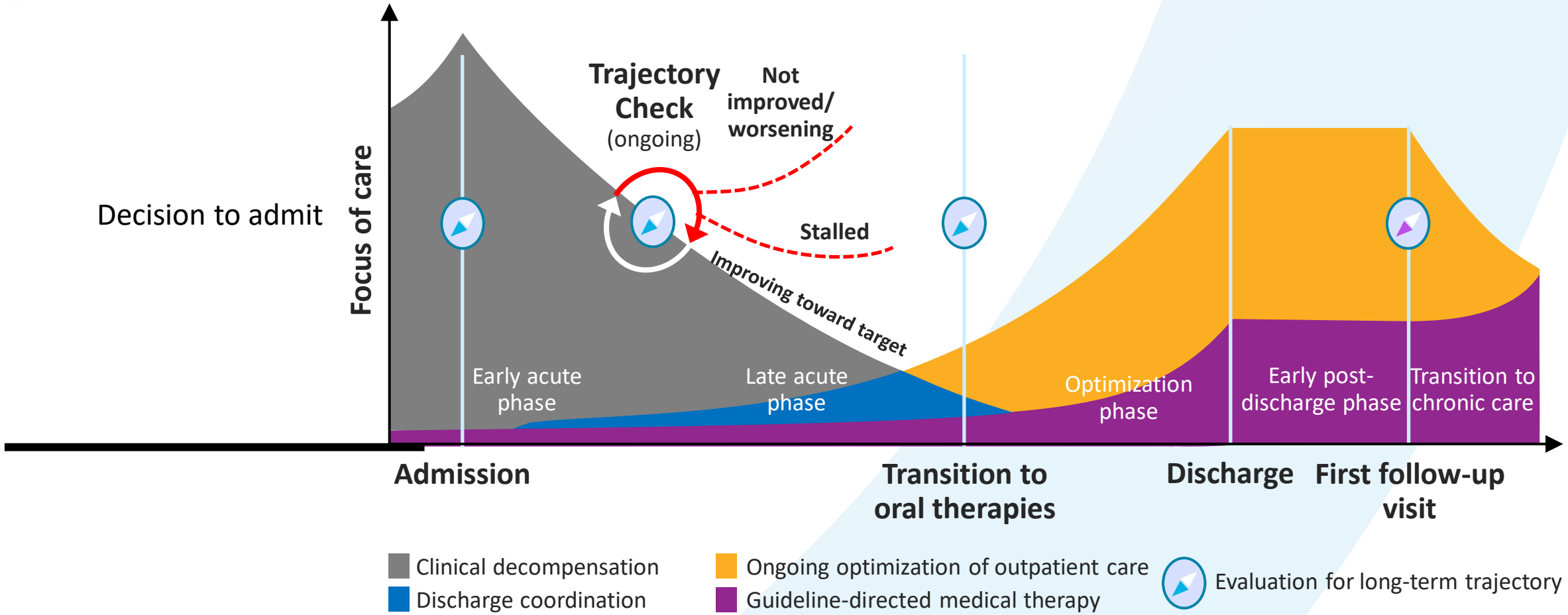
Write RCM-Heart Failure

Pathway to improve HF outcomes begins at admission



Hollenberg SM et al. J Am Coll Cardiol 2019;74(75):1966-2011.

Pathway to improve HF outcomes begins at admission



Hollenberg SM et al. J Am Coll Cardiol 2019;74(75):1966-2011.

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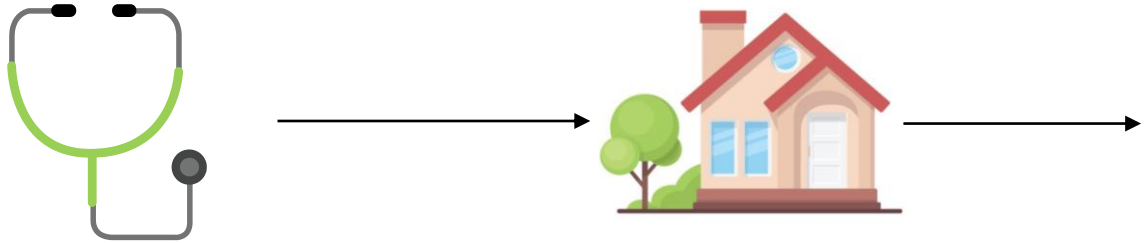
Criteria for Urgent HF Clinic

1- Signs of volume overload (elevated JVP, lung crackles and/or edema)
AND
2- ≥1 positive test of HF (BNP, CXR, and/or LV dysfunction on echo or POCUS)
AND
3- <u>One</u> of the following
- ≥1 prior ED visits or HF admissions in the preceding 6 months
- Acute kidney injury and HF
- New low EF (<40%), and volume overload on no/little medical therapy (≤1 out of the 4 classes: 1) ACEi/ARB/Entresto, 2) BB, 3) MRA, 4) SGLT2i)

Please write **URGENT HF clinic** on the referral form
(will endeavour to see in 2 weeks)

Hospital at Home



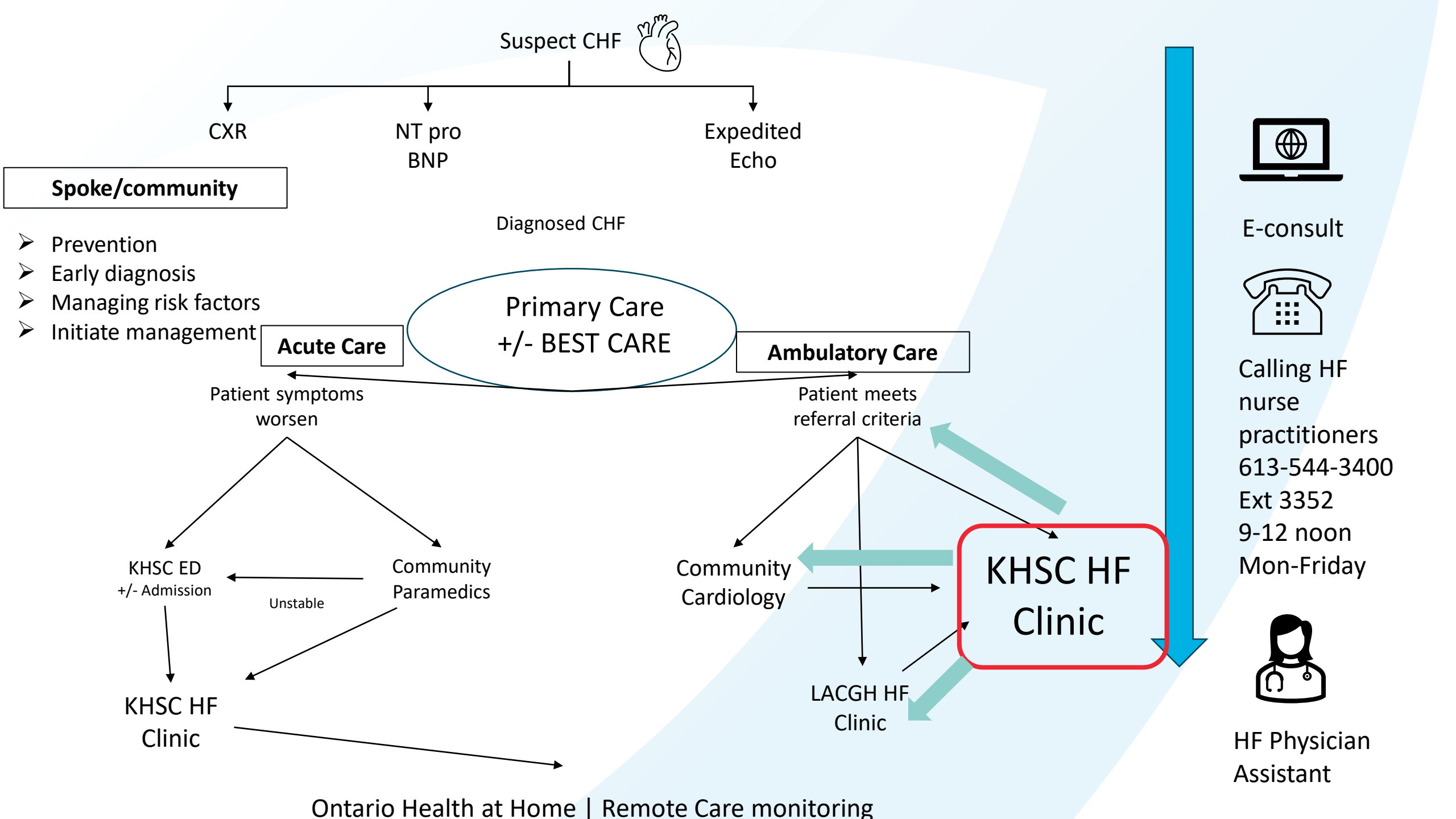
Assessment & Treatment in ED

- 1st dose of IV diuretics
- ~4 hours of monitoring
- Assess stability (vitals, biomarkers)

Discharge to Hospital at Home

- Inform Community Paramedics of new patient
- First CP visit at patient's house within 12-24 hours

Hospital at Home



Ontario Health at Home | Remote Care monitoring

Tier I
Very stable patients

No LV thrombus or specific cardiomyopathy (sarcoid, HCM, amyloid)

No recent HF exacerbations

No ED visits for HF/ arrhythmia, ICD shocks in past year

No ACS in past 6 months or diuretic escalation in past 3 months.

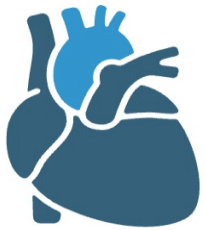
Minimal functional impairments

No moderate or severe: valvular dysfunction, dilated ascending aorta, pulmonary hypertension

- EF >40%
- BNP <500
- PASP <50mmHg
- NYHA I-II

Suitable for safe discharge

On maximally tolerated medical therapy



Tier II
Stable HF patients with residual cardiac disease

No specific cardiomyopathy (sarcoid, HCM, amyloid)

No recent exacerbations

No HF ED/hospitalizations in past 6 months or diuretic escalation in past 3.

Non-severe functional impairments

EF >30%*, BNP <1000, NYHA I-III

*In rare cases very stable and optimally treated patients with EF 20-30% may be transferred to community cardiology

Suitable for safe discharge

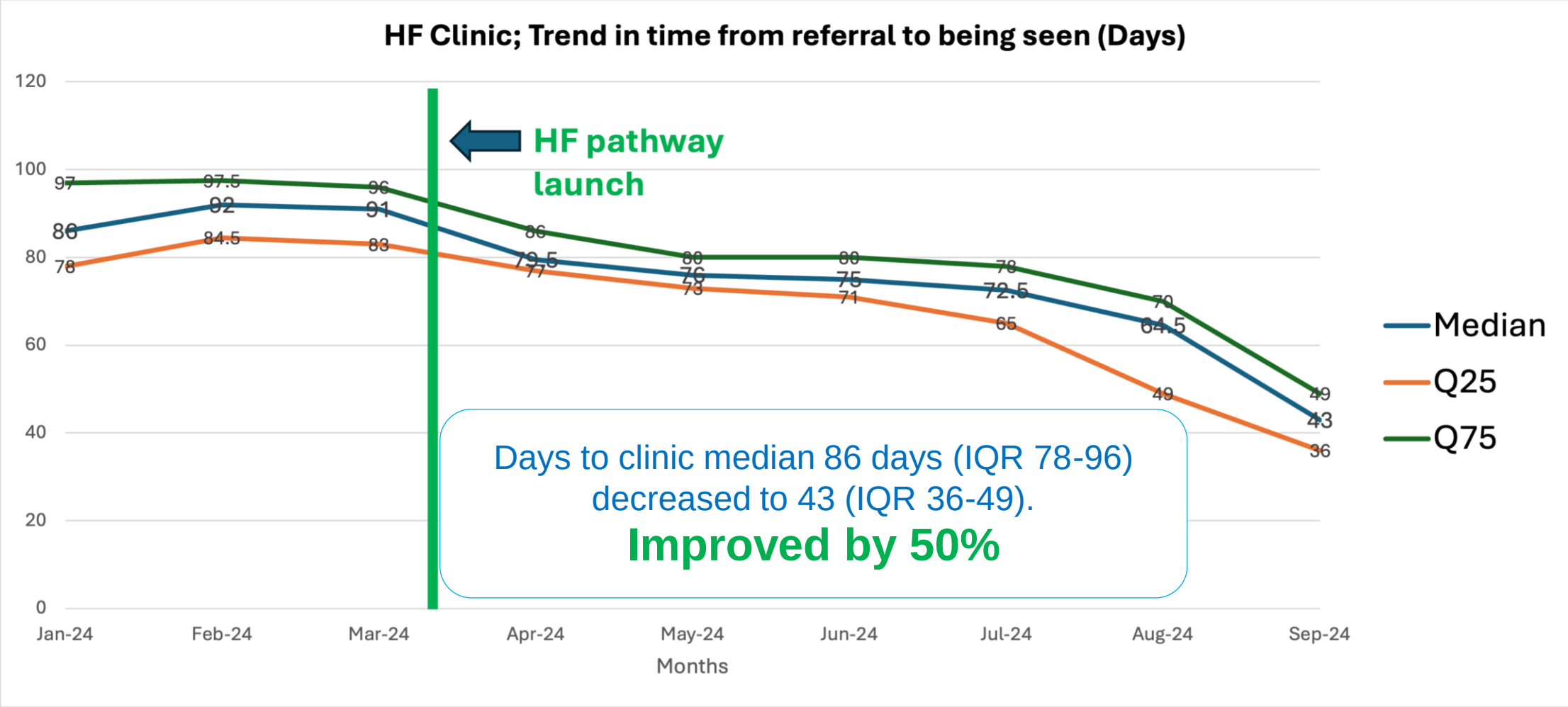
On maximally tolerated medical therapy

Abbreviations
LV - Left ventricle
HCM - Hypertrophic cardiomyopathy
HF - Heart failure
ED - Emergency department
EF - Ejection fraction
BNP - Brain natriuretic peptide
PASP - Pulmonary artery systolic pressure
ICD - Implantable cardioverter-defibrillator
ACS - Acute coronary syndrome

Criteria for safe discharge from the Heart Function Clinic

- **Tier I: For patients with recovered ejection fraction** and no residual heart disease --> to follow with primary care providers
- **Tier II: For patients with improved ejection fraction** and some residual heart disease --> to follow with community cardiologists

Expanding capacity of HF clinic



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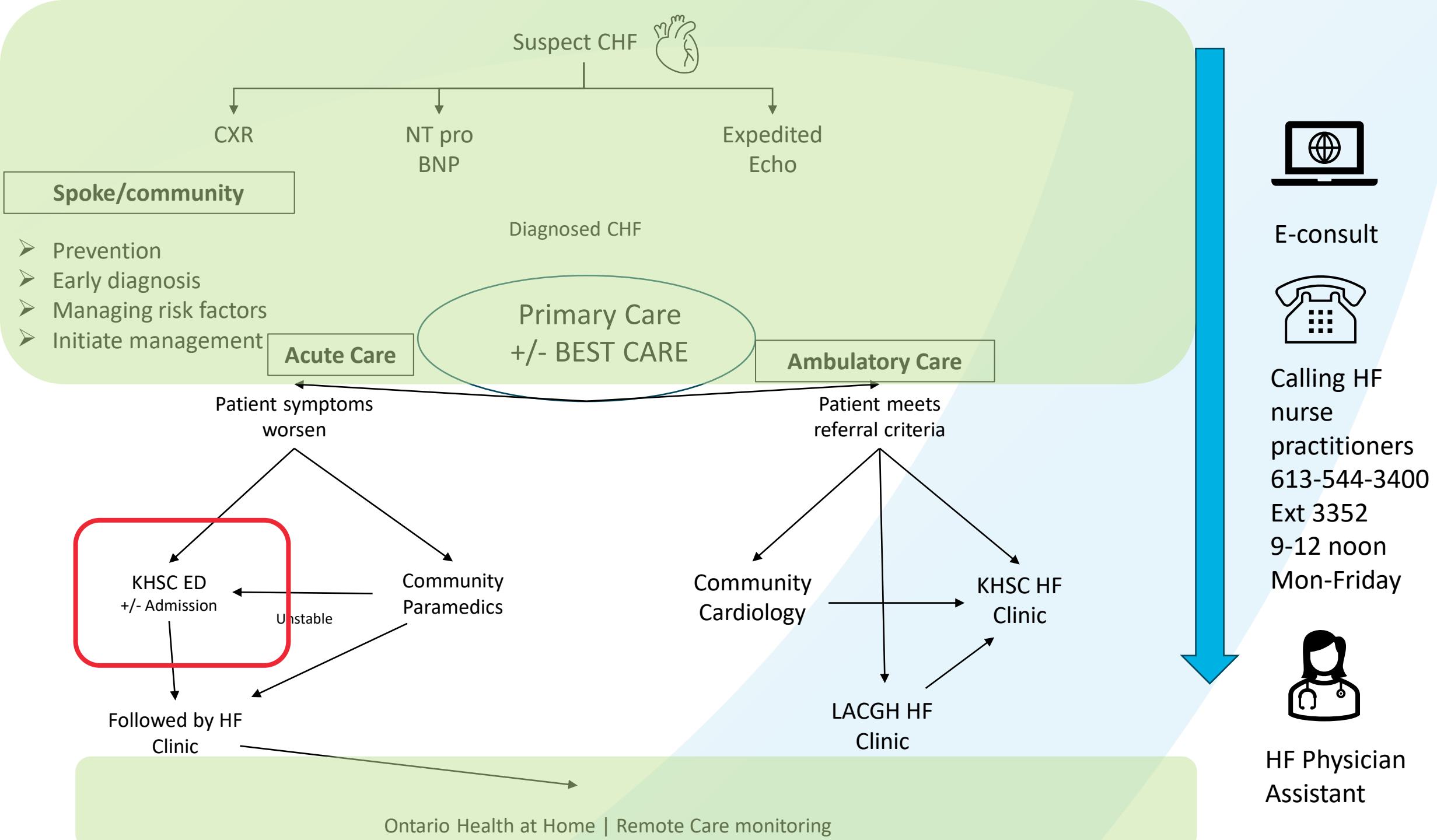
Right now,

1 in 5 Ontarians

are on track to be
without a family doctor
in the next two years


Suspect CHF
CXR
NT pro BNP
Expedited Echo
Spoke/community
Diagnosed CHF
Prevention
Early diagnosis
Managing risk factors
Initiate management
Primary Care +/- BEST CARE
Acute Care
Ambulatory Care
Patient symptoms worsen
Patient meets referral criteria
KHSC ED +/- Admission
Community Paramedics
Unstable
Community Cardiology
KHSC HF Clinic
LACGH HF Clinic
Followed by HF Clinic
Ontario Health at Home | Remote Care monitoring
E-consult
Calling HF nurse practitioners 613-544-3400 Ext 3352 9-12 noon Mon-Friday
HF Physician Assistant

- Prevent hospital readmission
- Prevent return to the ED
- Connect socially disadvantaged patients
- Facilitate discharge from HF clinic

Centres de santé communautaire de Kingston

Sustainability

QBP funding

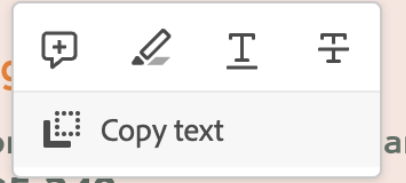
No Loss provision

Important to Know

LHIN-Managed Elective

- Acute Primary Unilateral Hip Replacement - **$5,214**
- Rehab Primary Unilateral Hip Replacement - **$9,005**
- Acute Primary Unilateral Knee Replacement- **$5,188**
- Rehab Primary Unilateral Knee Replacement - **$8,873**
- Acute Primary Bilateral Joint Replacement - **$5,222**
- Rehab Primary Bilateral Joint Replacement - **$7,745**
- Unilateral Cataract Day Surgery (Only Direct) - **$3,533**
- Non-Routine and Bilateral Cataract (Only Direct) - **$3,821**
- Acute Non-Cardiac Vascular Aortic Aneurysm - **$5,342**
- Acute Non-Cardiac Vascular Lower Extremity Occlusive Disease (LEOD) - **$4,896**
- Acute Tonsillectomy - **$4,822**
- Knee Arthroscopy - **$5,270**

LHIN-Manag



- Acute Chro ary Disease (COPD) - **$5,342**
- Acute Congestive Heart Failure (CHF) - **$5,110**
- Acute Stroke Hemorrhage - **$5,452**
- Acute Stroke Ischemic or Unspecified - **$4,970**
- Acute Stroke Transient Ischemic Attack - **$5,513**
- Acute Hip Fracture - **$5,286**
- Acute Neonatal Jaundice - **$5,432**
- Acute Pneumonia - **$4,926**

QBP report 2023-2024

$65,000

QBP (Subgroup)	Initial Funded Volumes (F24)	OH Reallocated volumes	Ending Funded Volumes (F24)	Actuals (F24)	Initial Funded Volumes (F25)
Congestive Heart Failure	468	(3)	465	458	480

Future projects

- For every admission, 2 patients discharged from ED.

(33% return in 30-days, 39% in 90-days, ~ >25% return >= 3 times in 4 month period)

- Support community hub clinics: APEX, Lennox & Addington CHF clinic:

- Educational lectures; directly to the community

- HF iPhone/Android application to assist trainees and clinicians in the diagnosis and management of HF patients

Slide # 11 – Secondary Investigations

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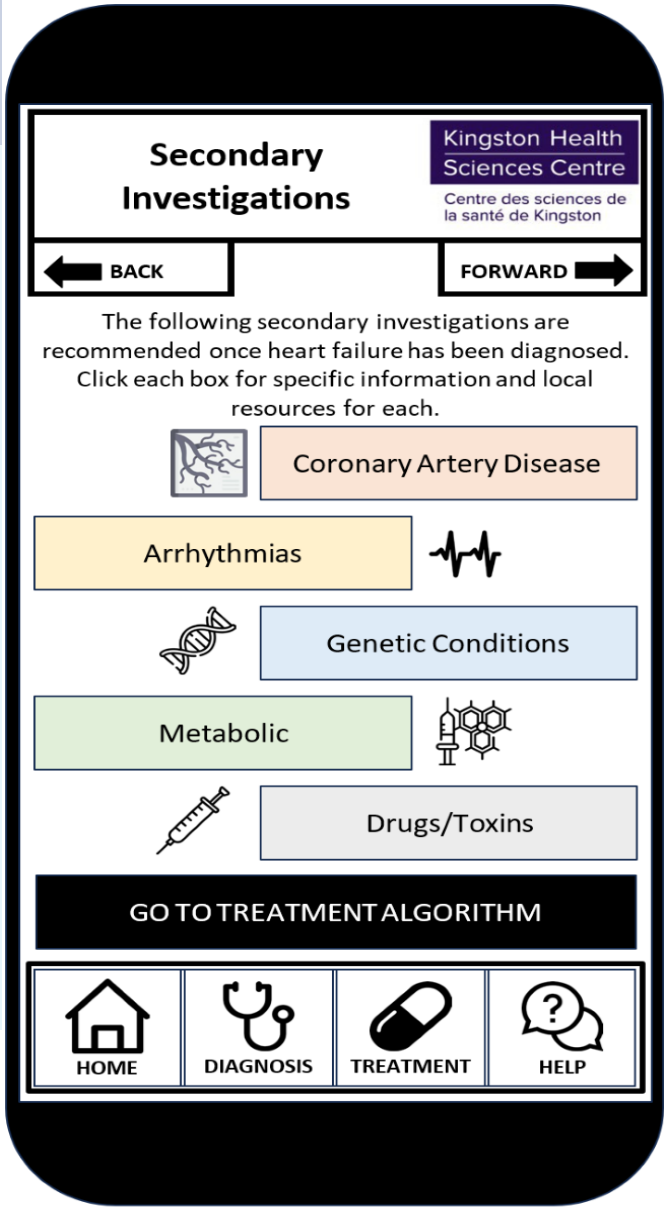

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Take home messages

- HF is highly prevalent and costly disease to the system
- Effective management starts with prompt diagnosis in the community; Easy access to diagnostic tests and interpretation
- Integrated care can enable all (most) patients receive the care they need at the right point of care continuum
- Readmissions are frequent, costly, and largely preventable!
- Gathering information (calls/RCM/etc) do not necessarily equate better outcomes, it is what you do with the data
- Must collaborate with primary care physicians
- Any successful strategy must not ignore unattached patients

Sarah Culhane

Melanie Higley

FLAOHT
Frontenac Lennox & Addington
Ontario Health Team

ÉSOFLA
Équipe Santé Ontario de
Frontenac, Lennox et Addington

Kingston Health Sciences Centre
Centre des sciences de la santé de Kingston

Hôpital Hotel Dieu Hospital
KGH Hôpital Général de Kingston General Hospital

Rebecca Wood , Drew McLean

Sebastián Rodríguez-Llamazares

Michael Fitzpatrick
Dendra Hillier
Kim Morrison
Hannah Green
Kevin Loughlin
Ani Garg
* Kerry Stewart

Ontario Health

Questions & Discussion

HF CoP Webinar Calendar

Upcoming Webinars:

Utilizing NT-proBNP as a screening tool in primary and community care settings.

This clinical webinar will focus on the role of NT-proBNP as a valuable screening tool in primary and community settings. Dr Stephanie Poon will provide practical advice on how the use of NT-proBNP to screen and identify patients early can improve patient outcomes by facilitating timely referrals and interventions.

Friday December 13th, 12:00p.m. – 1:00 p.m. (EST)
Registration is required:
https://zoom.us/meeting/register/tJEpfu-vrTkuGtDV9iL9_mK1uRMCqWW0b62C

Click here to join the HF CoP

1. Visit the OHT Shared Space and click "SIGN UP" to create your account.

2. Click the "JOIN GROUP" button. You will receive an email notification when you've been accepted into the group.
   Note: *You are automatically accepted into the "General Discussion" Group.*

3. Don't forget to click on the "Subscribe to Updates" button once you've been accepted into your CoP, to stay updated with all the latest conversations, webinars and resources.

Any questions/concerns? Contact the OH ICP Project Team at **OHTSupport@OntarioHealth.ca**

Thank You

OH HF Project Team