

Heart Disease Community of Practice Series 2

Multi-morbidity and Heart Failure - Managing Patients with Multiple Illnesses



BY
Pallium Canada

Facilitator: Diana Vincze, Pallium Canada

Presenter: Shannon Poyntz, NP-PHC, MN

Date: September 20, 2023

Territorial Honouring



The Palliative Care ECHO Project

The Palliative Care ECHO Project is a 5-year national initiative to cultivate communities of practice and establish continuous professional development among health care providers across Canada who care for patients with life-limiting illness.

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The Palliative Care ECHO Project is supported by a financial contribution from Health Canada. The views expressed herein do not necessarily represent the views of Health Canada.



Introductions

Facilitator

Diana Vincze

Palliative Care ECHO Project Manager, Pallium
Canada

Presenter

Shannon Poyntz, NP-PHC, MN

Nurse Practitioner, Supportive Care

ECHO Support

Aliya Mamdeen

Program Delivery Officer, Pallium Canada

Introductions

Panelists

Dr. Lynn Straatman, MD FRCPC

Clinical Assistant Professor, UBC
Department of Medicine (Cardiology and Palliative Care)
Department of Pediatrics (Adolescent Health)
Medical Director, Cardiac Function Clinic
Co-chair Physician Diversity, Equity and Inclusion
Committee, VCH

Dr. Leah Steinberg, MD, CFPC, FCFP, MA

Palliative Care Clinician, Sinai Health System
Assistant Professor, Division of Palliative Care,
University of Toronto

Dr. Michael Slawnych, MD FRCPC

Clinical Assistant Professor
Department of Cardiology, St Paul's Hospital
University of British Columbia

Morgan Krauter, NP, CCN(C)

Nurse Practitioner, Heart Function

Dr. Caroline McGuinty, MD FRCPC

Cardiologist, Advanced Heart Failure and
Transplantation, Cardiac Palliative Care
University of Ottawa Heart Institute
Assistant Professor, University of Ottawa

Drew Stumborg, RN

Saskatchewan Health Authority

Disclosure

Relationship with Financial Sponsors:

Pallium Canada

- Not-for-profit
- Funded by Health Canada
- Boehringer Ingelheim supports Pallium Canada through an in-kind grant to expand interprofessional education in palliative care.

Disclosure

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- Health Canada in the form of a contribution program
- Pallium Canada generates funds to support operations and R&D from Pallium Pocketbook sales and course registration fees
- An educational grant or in-kind resources from Boehringer Ingelheim.

Facilitator/ Presenter/Panelists:

- Diana Vincze: Palliative Care ECHO Project Manager at Pallium Canada.
- Morgan Krauter: None to disclose.
- Dr. Michael Slawnych: Novartis.
- Dr. Leah Steinberg: Pallium Canada (education material), HPCO (clinical advisory committee, educator).
- Dr. Caroline McGuinty: Servier (consulting fees), Novartis (speaker fees).
- Dr. Lynn Straatman: Servier, Novartis, Astra Zeneca, BI, Medtronic, Pfizer, Eli Lilly, Bayer, Merck (clinical trials).
- Shannon Poyntz: None to disclose.
- Drew Stumborg: None to disclose.

Disclosure

Mitigating Potential Biases:

- The scientific planning committee had complete independent control over the development of program content

Welcome and Reminders

- Please introduce yourself in the chat!
- Your microphones are muted. There will be time at the end of this session for questions and discussion.
- You are also welcome to use chat function to ask questions, add comments or to let us know if you are having technical difficulties, but also feel free to raise your hand!
- This session is being recorded and will be emailed to registrants within the next week.
- Remember not to disclose any Personal Health Information (PHI) during the session.
- This 1-credit-per hour Group Learning program has been certified by the College of Family Physicians of Canada for up to **6 Mainpro+** credits.
- This event is also an Accredited Group Learning Activity through the Royal College of Physicians and Surgeons of Canada. You may claim a maximum of **6.00 hours**.

Objectives of this Series

After participating in this program, participants will be able to:

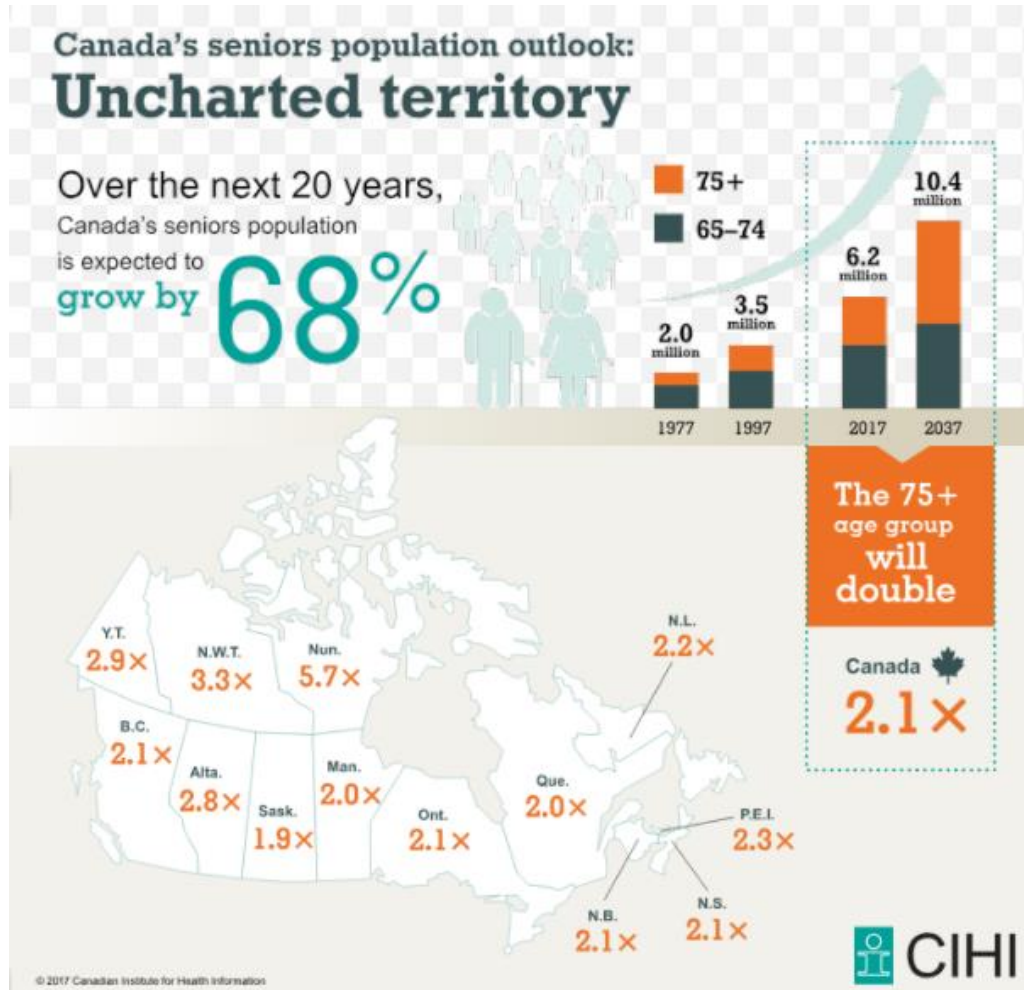
- Describe what others have done to integrate palliative care services into their practice.
- Share knowledge and experience with their peers.
- Increase their knowledge and comfort around integrating a palliative care approach for their patients with advanced heart failure.

Overview of Topics

Session #	Session title	Date/ Time
Session 1	Update to medical management of HF decompensations in the community, including Cardiorenal dysfunction: how to manage with a palliative approach to care	November 16, 2022 from 12-1pm ET
Session 2	Demystifying ICDs – do you always need to deactivate?	January 18, 2023 from 12-1pm ET
Session 3	Complex case management/ Patients with complex goals of care	March 15, 2023 from 12-1pm ET
Session 4	Diuretic management in the community: Lasix, Metolazone and Bumetanide	May 17, 2023 from 12-1pm ET
Session 5	Multi-morbidity and Heart Failure- Managing Patients with Multiple Illnesses	September 20, 2023 from 12-1pm ET
Session 6	De-prescribing cardiac and other medications: palliative care in people with advanced heart failure	November 15, 2023 from 12-1pm ET

Multi-morbidity and Heart Failure- Managing Patients with Multiple Illnesses





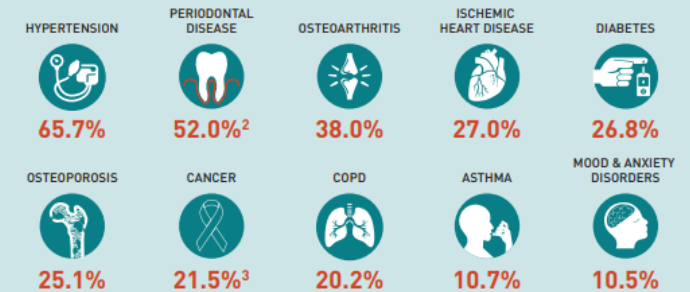
More than **100,000**
Canadians are diagnosed
with **heart failure**
each year.

PREVALENCE OF CHRONIC DISEASES AND RISK FACTORS AMONG CANADIANS AGED 65+

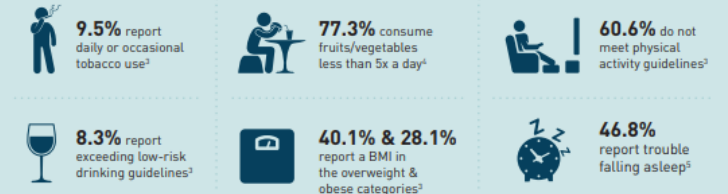
73% of individuals aged 65+
years have at least **1 of 10** common
chronic diseases¹



PREVALENCE OF THE MOST COMMON CHRONIC DISEASES AND CONDITIONS



PREVALENCE OF COMMON BEHAVIOURAL RISK FACTORS



To learn more about Chronic Diseases in Canada, visit Canada.ca

Get Data from the
Public Health Infobase

Like us on Facebook
[@HealthyCdns](https://www.facebook.com/HealthyCdns)

Follow us on Twitter
[@GovCanHealth](https://twitter.com/GovCanHealth)

Prevalence data are from the Canadian Chronic Disease Surveillance System 2016–2017, except where noted:

¹ The ten selected chronic conditions described include heart disease, stroke, cancer [ever had], asthma, chronic obstructive pulmonary disease, diabetes, arthritis, Alzheimer disease or other dementia, mood and anxiety disorders. Data are self-reported from the Canadian Community Health Survey 2017–2018.

² Canadian Health Measures Survey 2007–2009 (ages 65–79 years).

³ Canadian Community Health Survey 2017–2018.

⁴ Canadian Community Health Survey 2015–2016.

⁵ Canadian Health Measures Survey 2007–2015 (ages 65–79 years).






Abbreviations: BMI = body mass index; COPD = chronic obstructive pulmonary disease.


Frailty

RECOMMENDATION

168. We recommend that patients with known or suspected HF should be assessed for multimorbidity, frailty, cognitive impairment, dementia, and depression, all of which might affect treatment, adherence to therapy, follow-up, or prognosis (Strong Recommendation; High-Quality Evidence).

CLINICAL FRAILITY SCALE

	1	VERY FIT	People who are robust, active, energetic and motivated. They tend to exercise regularly and are among the fittest for their age.
	2	FIT	People who have no active disease symptoms but are less fit than category 1. Often, they exercise or are very active occasionally, e.g., seasonally.
	3	MANAGING WELL	People whose medical problems are well controlled , even if occasionally symptomatic, but often are not regularly active beyond routine walking.
	4	LIVING WITH VERY MILD FRAILITY	Previously "vulnerable," this category marks early transition from complete independence. While not dependent on others for daily help, often symptoms limit activities . A common complaint is being "slowed up" and/or being tired during the day.
	5	LIVING WITH MILD FRAILITY	People who often have more evident slowing , and need help with high order instrumental activities of daily living (finances, transportation, heavy housework). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation, medications and begins to restrict light housework.

	6	LIVING WITH MODERATE FRAILITY	People who need help with all outside activities and with keeping house . Inside, they often have problems with stairs and need help with bathing and might need minimal assistance (cuing, standby) with dressing.
	7	LIVING WITH SEVERE FRAILITY	Completely dependent for personal care , from whatever cause (physical or cognitive). Even so, they seem stable and not at high risk of dying (within ~6 months).
	8	LIVING WITH VERY SEVERE FRAILITY	Completely dependent for personal care and approaching end of life. Typically, they could not recover even from a minor illness.
	9	TERMINALLY ILL	Approaching the end of life. This category applies to people with a life expectancy <6 months , who are not otherwise living with severe frailty . (Many terminally ill people can still exercise until very close to death.)

SCORING FRAILITY IN PEOPLE WITH DEMENTIA

The degree of frailty generally corresponds to the degree of dementia. Common **symptoms in mild dementia** include forgetting the details of a recent event, though still remembering the event itself, repeating the same question/story and social withdrawal.

In **moderate dementia**, recent memory is very impaired, even though they seemingly can remember their past life events well. They can do personal care with prompting. In **severe dementia**, they cannot do personal care without help. In **very severe dementia** they are often bedfast. Many are virtually mute.

 **DALHOUSIE UNIVERSITY**
www.geriatricmedicineresearch.ca

Clinical Frailty Scale ©2005-2020 Rockwood, Version 2.0 (EN). All rights reserved. For permission: www.geriatricmedicineresearch.ca
Rockwood K et al. A global clinical measure of fitness and frailty in elderly people. CMAJ 2005;173:489-495.

Case-Based Discussion



CASE: Mr. John Smith

Details: 80-year-old male who comes to clinic for scheduled follow up visit.

PMHx:

Coronary disease with ischemic cardiomyopathy, HFrEF (EF 36%)

Atrial fibrillation

Hypertension

Hyperlipidemia

Diabetes

History of right MCA ischemic stroke

Chronic microcytic anemia

CKD (baseline 150-200)

COPD

Medications:

Apixaban 2.5 mg p.o. BID

Clopidogrel 75 mg p.o. OD

Entresto 24 mg / 26 mg p.o. BID

Furosemide 60 mg p.o. OD

Jardiance 10 mg p.o. OD

Metoprolol 100 mg p.o. BID

Simvastatin 40 mg p.o. qhs

Spirolactone 12.5 mg p.o. OD

Lantus insulin 16 units at suppertime

Ozempic 0.5mg sc weekly

Pantoprazole 40 mg p.o. OD

Ultibro inhaler as directed

Fera Max 150 mg p.o. once a day

Senokot 8.6 mg 2 tabs p.o. BID

Restoralax p.o. once a day

Mr. John Smith

Symptom Review:

Breathing: SOB at rest and SOBOE, some orthopnea, no PND, bilateral lower leg edema, occ cough, no increased sputum production, no fever or URTI symptoms.

Pain: none

Appetite: none

N/V: none

Bowels: Constipated

Energy/Sleep: “No energy”, needs assistance with bathing/getting dressed, using walker, sleeping more

Wellbeing: Felt Depressed, loss of QOL and sense of purpose

Mr. John Smith

- **Where do you start?**
- **What are the challenges you currently face?**
- **What can we strive to do differently?**

Clinical Presentation of Heart Failure

Common

- Dyspnea
- Orthopnea
- Paroxysmal nocturnal dyspnea
- Fatigue
- Weakness
- Exercise intolerance
- Dependent edema
- Cough
- Weight gain
- Abdominal distension
- Nocturia
- Cool extremities

Uncommon

- Cognitive impairment
- Altered mentation or delirium
- Nausea
- Abdominal discomfort
- Oliguria
- Anorexia
- Cyanosis

Mr. John Smith continued

Investigations: Hgb 77, Iron Saturation 9%, Iron 4, Ferritin 955, Creatinine 191, BNP 11,783, A1C 6.3%

Chest Xray showed mild interstitial edema and no effusion.

ACP/GOC: Focus on life prolongation, full code

Assessment/Plan:

Admitted directly to inpatient unit as found to be anemic and in HF. Started on IV Lasix, transfused 1u PRBC and given Venofer 300mg IV.

Canadian Journal of Diabetes: Diabetes in Older People

Glycemic targets in older people with diabetes

Status	Functionally independent	Functionally dependent	Frail and/or with dementia	End of life
Clinical Frailty Index*	1-3	4-5	6-8	9
A1C target <i>Low risk hypoglycemia (ie. therapy does not include insulin or SU)</i>	≤7.0%	<8.0%	<8.5%	A1C measurement not recommended. Avoid symptomatic hyperglycemia or any hypoglycemia
A1C target <i>Higher risk hypoglycemia (ie. therapy includes insulin or SU)</i>		7.1-8.0%	7.1-8.5%	
CBGM Preprandial: Postprandial:	4-7 mmol/L 5-10 mmol/L	5-8 mmol/L <12 mmol/L	6-9 mmol/L <14 mmol/L	Individualized

* See slide 5. CBGM = capillary blood glucose monitoring

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CANADA

Ozempic — prescribed for diabetes and popular among celebrities — now shows promise for heart failure, study shows

Semaglutide, known as Ozempic when prescribed for diabetes, can significantly improve symptoms in patients and help them lose weight, research shows.

By Megan Ogilvie Health Reporter

Friday, August 25, 2023 | ⌚ 4 min to read

🕒 Article was updated Aug 25, 2023



 JOIN THE CONVERSATION

Mr. John Smith – 1 Month Later

HPI: Family called for urgent follow up visit.

Symptom Review:

Wellbeing: Depressed, “this is not living”

Energy/Sleep: “Very weak”, needs assistance with everything, *asking for blood and iron transfusion

Breathing: SOB at rest and SOBOE, orthopnea, no PND, bilateral lower leg edema, occ cough, no increased sputum production, no fever or URTI symptoms.

Pain: none

Appetite: none, Ozempic stopped 2 weeks ago, weight gain noted “fluid weight”

N/V: none

Bowels: Constipated

Mr. John Smith – 1 Month Later

Investigations: Hgb 96, Iron Saturation 19%, Iron 9, Ferritin 971, Creatinine 157, BNP 16,993. Chest xray showed small pleural effusion, no overt edema.

ACP/GOC: Focus on life prolongation, DNR

O/E: Very frail, short of breath with NYHA class III symptoms. He is dyspneic on exam. Weight gain 6-8lbs. BP 107/58, O2Sat 91% R/A, decreased A/E bilaterally with crackles to bases, JVP elevated and mild lower leg edema.

Assessment/Plan: Admitted directly to inpatient unit for treatment of HF.
Started on IV Lasix, given Venofer 300mg IV x2

Work-up for Anemia and Iron Deficiency

Table 22. Commonly available tests for the work-up of anemia and iron deficiency

Test	Suspected etiologies	Remarks
Transferrin saturation, ferritin, serum iron	Iron deficiency	Ferritin might be artificially elevated in chronic inflammatory states; transferrin saturation might be low in patients with cachexia Referral to gastroenterology
Fecal occult blood; upper and lower endoscopy	Gastrointestinal-related blood loss	
TSH	Thyroid-related disorders	
Peripheral smear, reticulocyte count/index, LDH, haptoglobin, bone marrow biopsy	Multiple	
B12	Nutritional deficiency	Uncommon in Canada
Hemoglobin electrophoresis	Thalassemia; sickle cell disease	Target testing to those in high prevalence population
Serum and urine protein electrophoresis	Multiple myeloma, amyloidosis, and other protein disorders	

LDH, lactate dehydrogenase; TSH, thyroid-stimulating hormone.

Factors Associated with Anemia in Chronic HF

Older age

Diabetes

CKD

More advanced HF

Recent HF hospitalizations

Signs of HF

Higher levels of neurohormones and inflammatory markers

Exercise intolerance

Reduced quality of life

“It is estimated that 60% of patients with HF with anemia and 40% of those without anemia have [iron deficiency]”.

Canadian Cardiovascular Society: Guidelines Iron Deficiency

7.3.1.1 Iron deficiency

> [show/hide text](#)

Recommendation 115: We recommend that IV iron therapy be considered for patients with HFrEF and iron deficiency, in view of improving exercise tolerance, quality of life, and reducing HF hospitalizations (Strong Recommendation, Moderate Quality of Evidence).

Values and preferences: The CONFIRM-HF trial, 3 meta-analyses and the recent EFFECT-HF trial have improved the quality of evidence regarding benefits of IV iron therapy on the above outcome measures but there is yet no evidence regarding benefits on mortality. Given the rapid rate of iron repletion using the IV route and the available evidence, this treatment should be considered rather than PO iron repletion. Ongoing hospitalization can provide a good opportunity to facilitate IV iron administration.

Practical tips:

- Iron deficiency can be difficult to diagnose in patients with HF and diagnosis should ideally be done in a clinically stable state. The most widely accepted definition is a serum ferritin < 100 mg/L or ferritin between 100 and 299 mg/L and transferrin saturation < 20%. New biomarkers, such as soluble transferrin receptor, hepcidin and reticulocyte Hb may improve the sensitivity and specificity for the diagnosis of iron deficiency; but their clinical utility has yet to be demonstrated.

IV Iron Therapy

- Expensive \$\$\$
- In Ontario, not covered by Ontario Health Insurance Plan (OHIP) or the Ontario Drug Benefit (ODB) Program.
- Covered by some private benefit plans.
- Iron Sucrose (Venofer®)
 - Can apply for Exceptional Access Program (EAP)
 - For the treatment of iron-deficiency anemia confirmed by bloodwork where the patient has a demonstrated intolerance₁ to oral iron therapy₂ OR has not responded to adequate therapy with oral iron₂.

₁Intolerance must be described.

₂Provide name of iron salt, dose, duration of therapy, response etc.

Duration of Approval: 1 year Renewals will be considered on a case-by-case basis.

Duration of Approval: 2 years

IV Iron Therapy

- Iron Isomaltoside (Monoferic®)
 - LU 610 – For the treatment of patients with Iron Deficiency Anemia (IDA) who meet ALL the following criteria:
 - Patient has documented diagnosis of IDA confirmed by laboratory testing results (e.g. hemoglobin, ferritin); AND
 - Patient's IDA has experienced a failure to respond, documented intolerance, or contraindication to an adequate trial (i.e. at least 4 weeks) of at least one oral iron therapy; AND
 - Monoferic® is administered in a setting where appropriate monitoring and management of hypersensitivity reactions can be provided to the Patient.
 - LU Authorization Period: 1year
 - Requests that do not meet the Limited Use Criteria on the Ontario Drug Benefit formulary may be considered for funding on a case-by-case basis by the EAP.

Mr. John Smith continued

Two days post discharge

- Appetite improving

Two weeks post discharge

- Energy “good”, much improved, no SOB, appetite improved, eating well, regular BMs, walking up stairs and better endurance.

One month post discharge

- Feeling good, appetite good and reported gaining weight (not water weight)

Six weeks post discharge

- Started to feel he had less energy, appetite remains good. Iron studies ordered and Iron Saturation 16% (Hgb 96). Monoferic infusion ordered as outpatient.

Q&A



Wrap Up

- Please fill out the feedback survey following the session! A link has been added into the chat.
- A recording of this session will be e-mailed to registrants within the next week.
- Please join us for the next session in this series on **De-prescribing cardiac and other medications: palliative care in people with advanced heart failure** on **November 15, 2023 from 12–1:00 p.m. ET.**

Thank You



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