Heart Disease Community of Practice Series

Overview of Models of Care in Different Care Settings

Host and Moderator: Dr. José Pereira

Presenters: Dr. Leah Steinberg and Dr. Caroline McGuinty

Date: January 11th, 2022

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

Host and Moderator

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Scientific Officer, Pallium Canada

Presenters

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Disclosure

Relationship with Financial Sponsors:

Pallium Canada

- Not-for-profit
- Funded by Health Canada

Disclosure

This program has received financial support from:

- Health Canada in the form of a contribution program
- Generates funds to support operations and R&D from Pallium Pocketbook sales and course registration fees

Host/ Presenters:

- Dr. José Pereira: Scientific Officer, Pallium Canada
- Dr. Leah Steinberg: Pallium Canada (education material), HPCO (clinical advisory committee, educator)
- Dr. Caroline McGuinty: Servier (consulting fees), Novartis (speaker fees).

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 during 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 **12 Mainpro+** credits

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 cardiac clinics
- Describe how to integrate palliative care into the cardiac programs and services they offer
- Share knowledge and experience with their peers
- Describe existing and emerging models of care for various care settings, including home care, ambulatory care and in-patient settings

Overview of Topics

Session #	Session title	Date/ Time
Session 1	Overview of Models of Care in Different Care Settings	January 11, 2022 from 12-1pm ET
Session 2	Models of Care in the Home Care Setting	February 9, 2022 from 12-1pm ET
Session 3	Models of Care in the Ambulatory Setting	March 9, 2022 from 12-1pm ET
Session 4	Models of Care in the In-Patient Setting	April 13, 2022 from 12-1pm ET

Overview of Models of Care in Different Care Settings

Objectives of this Session

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

- Describe the trajectory of heart failure and where their own patients might fit into a model that incorporates a palliative care approach
- Review that there are no “prognostic” factors that are required to use a palliative approach to care.
- Begin to appreciate that heart failure patients can be cared for with an integrated palliative care approach in many settings.

The issues to address:

High burden of physical and emotional symptoms, loss of independence, and disruptions to social roles, all of which severely degrade quality of life.[1,2]

Physical symptoms in advanced HF, such as pain, are highly distressing for patients and caregivers, yet remain under-recognized and undertreated[3,4]

Patients and their caregivers often face decisions about high-risk and complex treatments, such as cardiac devices, without adequate prognosis communication and decision support.[5,6]

1. J. Solano, B. Gomes, I. Higginson **A comparison of symptom prevalence in far advanced cancer, AIDS, heart disease, chronic obstructive pulmonary disease and renal disease**J Pain Symptom Manage, 31 (2006), pp. 58-69
2. D.B. Bekelman, E.P. Havranek, D.M. Becker, *et al.***Symptoms, depression, and quality of life in patients with heart failure** J Card Fail, 13 (2007), pp. 643
3. J. Goebel, L. Doering, L. Shugarman, *et al.* **Heart failure: the hidden problem of pain**J Pain Symptom Manage, 38 (2009), pp. 698-707
4- L. Evangelista, E. Sackett, K. Dracup **Pain and heart failure: unrecognized and untreated**Eur J Cardiovasc Nurs, 8 (2009), pp. 169-173
5. R. Harding, L. Selman, T. Beynon, *et al.* **Meeting the communication and information needs of chronic heart failure patients** J Pain Symptom Manage, 36 (2008), pp. 149-156
6. L. Lemond, L.A. Allen **Palliative care and hospice in advanced heart failure** Prog Cardiovasc Dis, 54 (2011), pp. 168-178

Patients with advanced HF enroll in hospice at lower rates than those with cancer[1] and late in the course of their disease (within 3 days of death)[2].

The majority of patients with HF die in hospital[3,4], despite evidence that most individuals prefer to die at home[5,6].

1. D.B. Bekelman, C.T. Nowels, L.A. Allen, S. Shakar, J.S. Kutner, D.D. Matlock**Outpatient palliative care for chronic heart failure: a case series** J Palliat Med, 14 (2011), pp. 815-821
2. W.Y. Cheung, K. Schaefer, C.W. May, *et al.***Enrollment and events of hospice patients with heart failure vs. cancer**J Pain Symptom Manage, 45 (2013), pp. 552-560
3. Al-Kindi SG, Koniaris C, Oliveira GH, Robinson MR. Where Patients with Heart Failure Die: Trends in Location of Death of Patients with Heart Failure in the United States. J Card Fail. 2017 Sep;23 (9):713-714.
4. Quinn KL, Hsu AT, Smith G. et al. Association Between Palliative Care and Death at Home in Adults with Heart Failure. J Am Heart Assoc. 2020 Mar 3;9(5):e013844.
5. Pollock K. Is home always the best and preferred place of death? BMJ 2015;351:h4855.
6. Gomes B, Calanzani N, Gysels M, Hall S, Higginson IJ. Heterogeneity and changes in preferences for dying at home: a systematic review. BMC Palliative Care. 2013;12(1):7.

The New York Times

Failing Patients With Heart Failure

By Haider Javed Warraich

Aug. 10, 2015

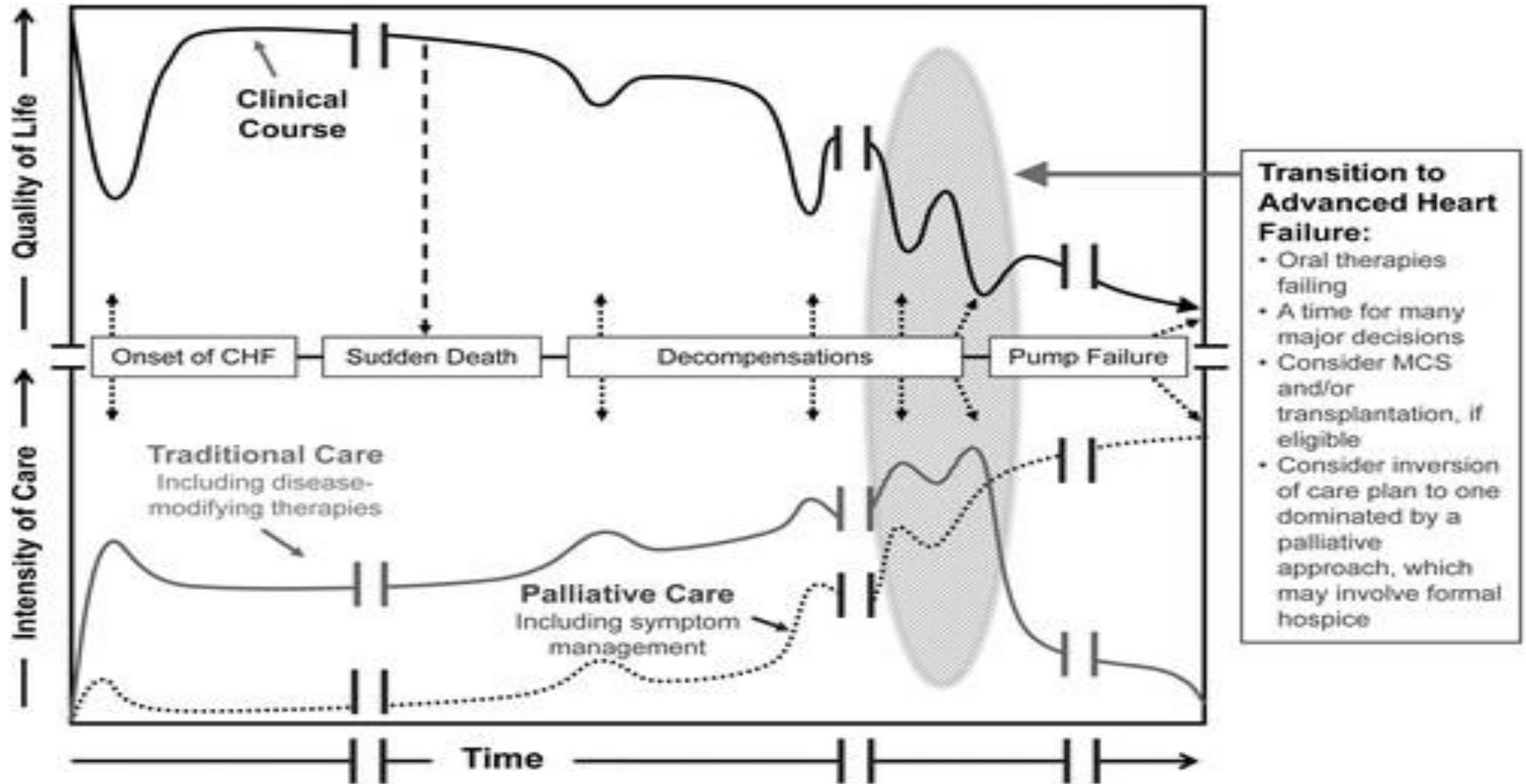
HEART disease is the world's No. 1 killer, despite advances in medical technology, as well as public health initiatives that have eased the burden of heart disease drastically. While one marvels at the progress, we often ignore how heart-disease patients die.

Patients with heart disease are more likely to suffer excessively at the end of life than those with other conditions. While surveys show that people overwhelmingly want to die at home, patients with cardiovascular disorders are much less likely to do so than patients with other diseases, such as cancer.

The New York Times

For Patients With Heart Failure, Little Guidance as Death Nears

Americans are living longer with heart disease, managing it as a chronic condition. But there are few rules for these patients as they near the end of life.



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Larry A. Allen. Circulation. Decision Making in Advanced Heart Failure, Volume: 125, Issue: 15, Pages: 1928-1952, DOI: (10.1161/CIR.0b013e31824f2173)

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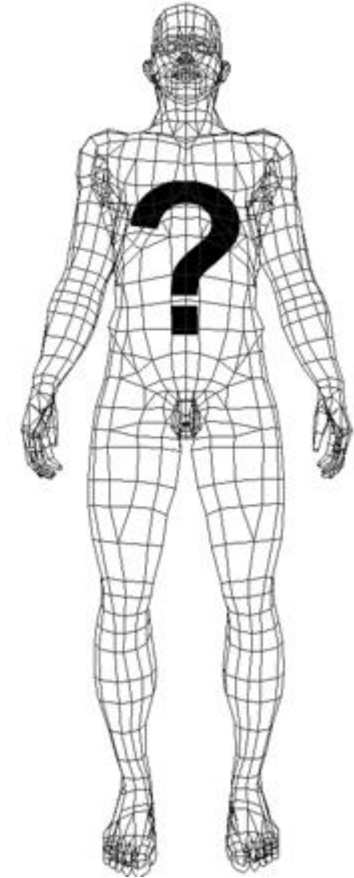
Prognostication

Prognostication underlies the infrastructure in palliative care…

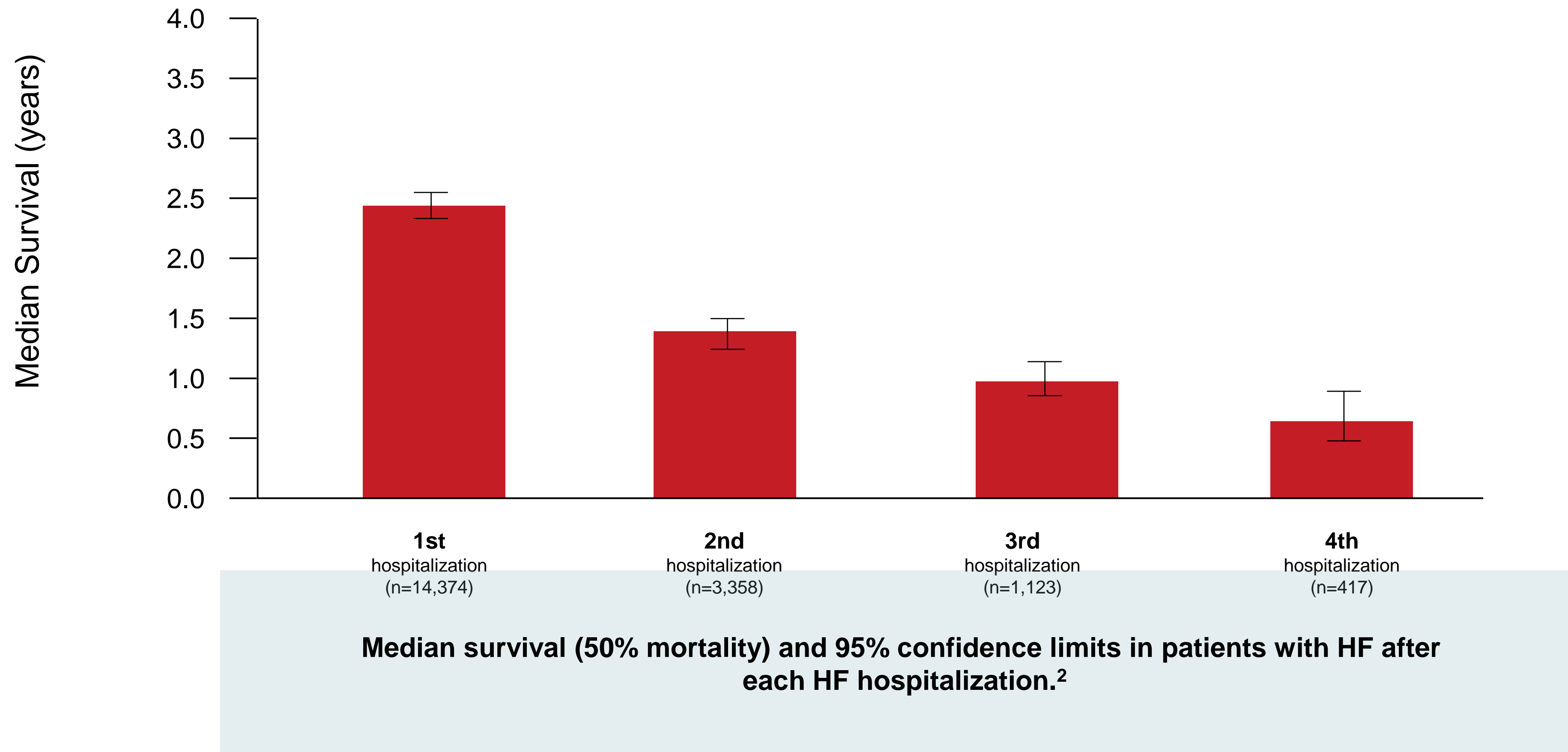
But, in HF – prognostication
defies us!



More than 100 variables have been associated with mortality and re- hospitalization in heart failure

- General
  - Age, diabetes, sex, weight (BMI), etiology of HF, comorbidities (COPD, cirrhosis)
- Laboratory markers
  - Na, creatinine (and eGFR), urea, BUN,
  - Hgb, % lymphocytes,
  - uric acid
  - Low HDL
  - Insulin resistance
- Urine
  - Abluminuria
  - NGAL - neutrophil gelatinase associated lipocalin
- Biomarkers
  - BNP, NT pro BNP, troponin, CRP, cystatin C, GDF-15 (growth differentiation factor), serum cortisol, TNF, ET, NE, midregional-pro-adrenomedullin (MR-proADM), pro-apoptotic protein apoptosis-stimulating fragment (FAS)
- Medication
  - Intolerance to ACEI, diuretic dose
- NYHA class IV
  - Especially if sustained > 90 days
  - 6 minute walk
- Cardiopulmonary markers
  - Peak VO2, % predicted, VE/VCO2, AT, workload, systolic BP < 130, HR recovery
- Clinical Exam markers
  - BP (admission and discharge), heart rate, JVP, +S3, cachexia
  - Depression
  - Obstructive sleep apnea
- Echo parameters
  - EF, chamber size (LV, LA, RA), sphericity,
- RNA
  - RVEF, LVEF
- Recurrent hospitalizations
- ECG
  - IVCD
- Hemodynamic markers
  - PA pressures, CO, CI, MVO2
- Endomyocardial biopsies
  - Microarrays transcriptomic biomarkers
- Marital status

Recognizing markers of poor prognosis: Risk of mortality increases with each hospitalization



Median survival (50% mortality) and 95% confidence limits in patients with HF after each HF hospitalization.[2]

Setoguchi et al Am Heart J 2007;154:26026;
Benjamin et al. Circulation 2017;135(10):e146-e603; 4. Roger et al. JAMA 2004;292:344–50

Markers of Advanced Heart Failure “I Need Help”

I – **I**notropes (previous or ongoing requirement)

N – **N**YHA class III or IV /**N**atriuretic peptides

E – **E**nd organ dysfunction (renal/liver dysfunction)

E – **E**jection fraction (EF < 20%)

D – **D**efibrillator shocks

H – **H**ospitalizations

E – **E**dema/**E**scalating diuretics

L – **L**ow blood pressure

P – **P**rognostic medication (inability to uptitrate medications or need to decrease)

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Rather than prognosis, refer based on needs

How do you determine needs?

Use screening tools: SPICT

https://www.spict.org.uk/the-spict/

Assess them for unmet supportive and palliative care needs. Plan care.

Look for any general indicators of poor or deteriorating health.

- Unplanned hospital admission(s).
- Performance status is poor or deteriorating, with limited reversibility. (eg. The person stays in bed or in a chair for more than half the day.)
- Depends on others for care due to increasing physical and/or mental health problems.
- The person's carer needs more help and support.
- Progressive weight loss; remains underweight; low muscle mass.
- Persistent symptoms despite optimal treatment of underlying condition(s).
- The person (or family) asks for palliative care; chooses to reduce, stop or not have treatment; or wishes to focus on quality of life.

Look for clinical indicators of one or multiple life-limiting conditions.

Cancer

Functional ability deteriorating due to progressive cancer.

Too frail for cancer treatment or treatment is for symptom control.

Dementia/ frailty

Heart/ vascular disease

Heart failure or extensive, untreatable coronary artery disease; with breathlessness or chest pain at rest or on minimal effort.

Severe, inoperable peripheral vascular disease.

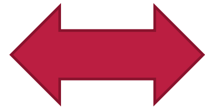
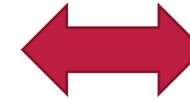
Kidney disease

Stage 4 or 5 chronic kidney disease (eGFR < 30ml/min) with deteriorating health.

Kidney failure complicating other life limiting conditions or treatments.

...ster on the SPICT website (www.spict.org.uk) for information and upda...

Improved Outcomes across PC Settings

Outpatient Care  **Inpatient Care**  **Home-based care**

Outpatient Care

- Embedded PC specialist in advanced Heart Failure clinic
- Outpatient (Clinic) PC referral following hospital discharge

Inpatient Care

- Inpatient PC consultation and support
- Interprofessional Palliative care consultation (ACP)

Home-based care

- Telephone/virtual supportive care
- Transitional care program
- In-home management of heart failure

Questions and Discussion

Wrap Up

- Please fill out our feedback survey! Link has been added into the chat and will also be e-mailed
- 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:
  - Models of Care in the Home Care Setting
  - February 9th, 2022 from 12-1pm ET
- If you would like to present a case at one of our upcoming sessions, contact echo@pallium.ca

Thank You

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