Approaches to Managing the Palliative Care Needs of Patients with Heart Failure

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Conflict of Interest Disclosures

- **Grants/research support**: None.
- **Consulting fees**: Astra Zeneca, Pfizer, Novartis, Servier
- **Speaker fees**: Novartis, Servier
- **Other**: None.

- I will discuss off-label uses for palliative care medications.
OBJECTIVES

1. Describe current state of palliative care in heart failure

2. Describe an approach to changing needs for patients with advanced heart failure

3. Understand how to access enhanced supports for patients with difficult symptom control needs at end of life.
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Palliative Care

The World Health Organization

“An approach that improves quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychological and spiritual.”
TRANSITION TO ADVANCED HEART FAILURE
- Oral therapies
- A time for many major decisions
- Consider MCS and/or transplantation, if eligible
- Consider inversion of care plan to one dominated by a palliative approach, which may involve formal hospice
Scope of the problem

• Once heart failure becomes “advanced”, 1 year survival is 60-80%.

• 1 year mortality after 1st HF admission ranges between 20-30%.

• 70% will be readmitted or die in the 12 months after HF admission.

• Up to 75% of community-dwelling adults with heart failure die in hospital.

ESC Heart Fail. 2018 Apr;5(2):271-278
Heart and Stroke 2013 adapted from Ross 2006
Quinn, K. et al. J Am Heart Assoc 2020; 9 (5)
Symptom burden in Heart Failure

• Similar or worse symptom burden and quality of life than cancer.
  Dyspnea       Fatigue
  Depression    Anxiety
  Insomnia      Decreased function
  Pain          Poor cognitive function

• Increasingly complex medical decision making.

More Malignant than Cancer.
Distribution of adults in need of palliative care at the end of life by disease groups.

- Alzheimer's and other dementias: 1.65%
- Cirrhosis of the liver: 1.70%
- Kidney disease: 2.02%
- Diabetes mellitus: 4.59%
- HIV/AIDS: 5.71%
- Chronic obstructive pulmonary disease: 10.26%
- Multi-drug-resistant tuberculosis: 0.80%
- Parkinson disease: 0.48%
- Rheumatoid arthritis: 0.27%
- Multiple sclerosis: 0.04%

Cancer: 34.01%
Cardiovascular diseases: 38.47%

N = 19,228,760

World Health Organization 2014
Canadian studies suggest:

- Proportion of adults dying with HF who receive PC is half of that for those dying with cancer.\(^1\)
- Palliative care most commonly initiated <30 days before death\(^2\).
- Median time from inpatient PC consultation to death 6 days\(^3\).
- Less than a quarter of patients access palliative care during terminal hospitalization\(^3\).
- Palliative care led by non specialist physicians\(^2\).
- Less likely to be admitted to palliative care unit.

2. Quinn, K. et al. J Am Heart Assoc 2020; 9 (5)
The Evidence for Palliative Care in HF

- Decreased symptom burden.
- Improved NYHA class.
- Improved quality of life.
- Decreased hospitalization rates.
- Reduced healthcare costs.
- More likely to die at home

J Card Failure. 2012 Dec; 18 (12): 894-899
European Journal of Heart Failure (2014) 16, 1142–1151
Journal of Palliative Medicine 2015. 18 (2).
Heart 2016;102:1100–1108
J Am Coll Cardiology 2017 Jul 18;70(3):331-341
Journal of Palliative Medicine 2017. 20 (1)
Annu Rev Public Health 2014. 35: 459-75
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Palliative Care

Adler et al. JAMA. 1999; 281: 163–168
Palliative Care Model in HF

Central Illustration: Integrating Palliative Care Across the HF Experience

After heart failure (HF) diagnosis, initiate in tandem:

Traditional HF Management
- Patient assessments: Medical and family histories, physical exam, diagnostic tests, patient-reported outcomes
- Predict and communicate prognosis
- Choose therapy
- Manage "trigger" events
- Monitor progress as physical function and quality of life declines

Primary Palliative Care
- Control pain and other symptoms
- Assist with medical decision-making and advance care planning
- Assess and reduce emotional distress and burden to patient and family
- Coordination of care across patient's care team
- Promote improved quality of life for patient and caregiver

Specialist Palliative Care
- Consider specialist involvement when problems are especially complex or severe (includes hospice care)

Fig 5 | Integration of palliative care and heart failure
Advance Care Planning

Goals of Care

Code Status
Fig 4 | Components of an annual heart failure review. Adapted, with permission, from Allen and colleagues.39
Establishing Goals and Values

- Costs/Burden
  - Direct Medical Costs
  - Indirect Costs
  - Lost Opportunities
  - Caregiver Burden

- Quality of Life
  - Symptoms
  - Physical Function
  - Mental
  - Emotional
  - Social

- Outcomes Relevant to an Individual Patient

- Survival

Circulation. 2012 April 17; 125(15): 1928–1952
Advance Care Planning

Goals of Care

Decisions

- Think, Learn, Choose, Talk, Record
- Personal Directive
- Choosing a delegate
- "What if something happens?"

- Discussions within context of illness
- Understanding prognosis, goals, fears, values, "trade-offs", what is important
- "What if this happens?"

- Specific, in the moment
- Guided by the above
- "This is happening"
Improving Communication

- Patient decision aid
- Improved patient knowledge
- Reduced decisional conflict
- Increased patient decision making

Colorado Program for Patient Centered Decisions 2018
Cochrane Database Syst Rev. 2009; (3) CD001431.
Dyspnea

- Optimize guideline-directed therapy
- Non pharmacological: handheld fan, rehab
- Diuretics
- Inotropes
- Opioids:
  - Literature suggests safe in patients with HF
  - Mixed results in patients with HF
  - Remains first line recommendation for refractory symptoms
Pain

- Common in HF but underdiagnosed.
- **Mild pain**: acetaminophen.
- **Moderate to severe pain**: Opioids as first-line therapy, oral route, regular dosing, titrate dose according to pain intensity on ESAS scale until adequate relief
- Avoid NSAIDs and Codeine.
- Consider complementary medicine options
Nausea

• Prokinetics:
  • Metoclopramide 5-20 mg po/iv/sc q6h PRN
  • Antiemetic drug of choice

• Dopamine Antagonists
  • Haldol 0.5-1 mg po/iv/sc q4h prn
  • Olanzapine 2.5-5 mg po/sc qhs +/- q4h prn
  • Methotrimeprazine (Nozinan) 2.5-5 mg po or 6.25-12.5 mg po/sc/iv q4h prn

Be aware QT prolongation!
Depression

- Use low-dose SSRIs as first-line therapy
  - Sertraline and venlafaxine safe in HF.
  - Avoid tricyclic antidepressants.

- Cognitive-behavioural therapy, spiritual support, mindfulness-based training, and dignity therapy

The Journal of clinical psychiatry. 2014;75(6):e552-8
Canadian Family Physician September 2017, 63 (9) 674-680;
Fatigue

• Optimize guideline-directed therapy
• Rehabilitation
• Rule out sleep disordered breathing, iron deficiency, depression
• Inotropic support
OBJECTIVES

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Triggers for Specialty PC Referral:
- Initiation of palliative inotropes
- Preparation for procedures such as ICD, LVAD, dialysis, transplant
- Failing/unable to tolerate GDMT
- Psychosocial or Spiritual Distress
- Assessment for hospice referral
- Patient desire/request for PC
- Recurrent hospitalizations
- Excessive symptom burden
- ICD Shocks
- Comorbid diagnosis e.g. cancer

Specialty Palliative Care Clinic

One Time Consult Only

Cardiology-Palliative Care Co-Management

Cardiology/Heart Failure Clinic
Specialist Palliative Care

- Need for shared decision-making despite prognostic uncertainty
  - Integration of palliative care into the HF team
  - Co-locate within HF clinic
  - Impact of outpatient PC programs in HF needs further study

- Specialized palliative care clinic or inpatient consult service

- Community access can be limited depending on region
  - Home inotrope program
COVID-19 Palliative Resources

COVID-19 Response – Free, Online Modules

Enhance your knowledge and skills in palliative care with these free, self-directed modules.

Pallium, in collaboration with the Canadian Medical Association (CMA), is providing access to essential education on palliative care for all health care professionals in response to this unprecedented COVID-19 pandemic. In these difficult times, it is more important than ever that all health care providers are equipped with the essential skills to provide compassionate, palliative care to patients in need.

https://www.pallium.ca/pallium-canadas-covid-19-response-resources/
Thank you!
Central Illustration. The PAL-HF study randomized 150 patients with advanced heart failure to usual care or usual care + a multidimensional palliative care intervention.
Palliative Care Interventions for Patients with Heart Failure: A Systematic Review and Meta-Analysis

Michelle S. Diop, BA, MD, James L. Rudolph, MD, SM, Kristin M. Zimmerman, PharmD, CGP, Mary A. Richter, MD, and L. Michal Skarf, MD

- Improved QoL and satisfaction
- Meta-analysis- decreased rehospitalizations
- Decrease in resource utilization

FIG. 2. Meta-analysis of readmissions.
Palliative Care: Improved Survival

Matched cohort study: hospice use or not. 4493 Medicare patients, 2095 (47%) received hospice care for at least one day, 1999

<table>
<thead>
<tr>
<th>Disease</th>
<th>Added survival</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHF</td>
<td>+ 81 days, P = 0.0540</td>
</tr>
<tr>
<td>Lung cancer</td>
<td>+ 39 days, P &lt; 0.0001</td>
</tr>
<tr>
<td>Pancreatic cancer</td>
<td>+ 21 days, P = 0.0102</td>
</tr>
<tr>
<td>Colon cancer</td>
<td>+ 33 days, P = 0.0792</td>
</tr>
<tr>
<td>Breast</td>
<td>+ 12 days, P = 0.6136</td>
</tr>
<tr>
<td>Prostate</td>
<td>+ 4 days, P = 0.8266</td>
</tr>
</tbody>
</table>
Examining the Effects of an Outpatient Palliative Care Consultation on Symptom Burden, Depression, and Quality of Life in Patients With Symptomatic Heart Failure

LORRAINE S. EVANGELISTA, PhD, RN, FAHA, FAAN1, DAWN LOMBARDO, MD2, SHAISTA MALIK, MD, PhD, MPH3, JENNIFER BALLARD-HERNANDEZ, MSN, NP, AACC3, MARJAN MOTIE, PhD5, and SOLOMON LIAO, MD, FAAHPM6
Irvine and Newport Beach, California

Prospective study of outpatient PC consultation in recently hospitalized patients with HF.

Improvement in symptoms at 3 months.

Improved physical health per the Minnesota Living with Heart Failure score.
Effects of person-centred and integrated chronic heart failure and palliative home care. PREFER: a randomized controlled study

Margareta Brännström¹* and Kurt Boman²

¹Strategic Research Program in Health Care Sciences (SFO-V), ‘Bridging Research and Practice for Better Health’, Department of Nursing, Umeå University, Umeå, Sweden; and ²Research unit, Department of Medicine, Skellefteå, Institution of Public Health and Clinical Medicine, Umeå University, Umeå, Sweden

Palliative homecare program for patients with Heart Failure

Improved quality of life, symptom burden, NYHA class.

Decreased hospitalization rates compared with usual care.
Inpatient Palliative Care for Patients with Acute Heart Failure: Outcomes from a Randomized Trial

Abby C. Sidebottom, MPH, Ann Jorgenson, RN, Hallie Richards, MD, Justin Kirven, MD, and Arthur Sillah, MPH

- Inpatient PC consult
- Improved PHQ-9 scores and Minnesota Living with Heart Failure score at 1 and 3 months.
- No difference in readmission at 30 days, hospice use or death within 6 months.

**Table 3. Survival Analysis of 30-day Readmission, Advance Care Planning, Hospice Use, or Death at 6 Months**

<table>
<thead>
<tr>
<th>Event</th>
<th>HR (95% CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readmission within 30 days</td>
<td>1.43 (0.5, 4.1)</td>
<td>0.501</td>
</tr>
<tr>
<td>Advance care planning within 6 months</td>
<td>2.87 (1.09, 7.59)</td>
<td>0.033</td>
</tr>
<tr>
<td>Hospice use within 6 months</td>
<td>1.60 (0.58, 4.38)</td>
<td>0.360</td>
</tr>
<tr>
<td>Death within 6 months</td>
<td>1.90 (0.88, 4.09)</td>
<td>0.101</td>
</tr>
</tbody>
</table>

*The hazard ratios (HR) are adjusted for age, sex, and marital status. CI, confidence interval.
Effects of a transitional palliative care model on patients with end-stage heart failure: a randomised controlled trial

Frances Kam Yuet Wong,¹ Alina Yee Man Ng,¹ Paul Hong Lee,¹ Po-tin Lam,² Jeffrey Sheung Ching Ng,³ Nancy Hiu Yim Ng,² Michael Mau Kwong Sham⁴

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Readmission at 4 and 12 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control (n=41)</td>
</tr>
<tr>
<td>Number of readmissions at 4 weeks (mean, SE)</td>
<td>0.41 (0.10)</td>
</tr>
<tr>
<td>Number of readmissions at 12 weeks (mean, SE)**</td>
<td>1.10 (0.16)</td>
</tr>
<tr>
<td>Readmissions within 28 days (n, %)</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>29 (70.7%)</td>
</tr>
<tr>
<td>Yes</td>
<td>12 (29.3%)</td>
</tr>
<tr>
<td>Readmissions within 84 days (n, %)*</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>16 (39.0%)</td>
</tr>
<tr>
<td>Yes</td>
<td>25 (61.0%)</td>
</tr>
</tbody>
</table>

Tested using Poisson regression and χ² test. *p<0.05; **p<0.01.
Goals of Integrating Palliative Care

• Better communication
• Better quality of life
• Better transitions of care
• Better outcomes