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

Dr. Caroline McGuinty MD FRCPC

Rodolfo Pike RN MN NP

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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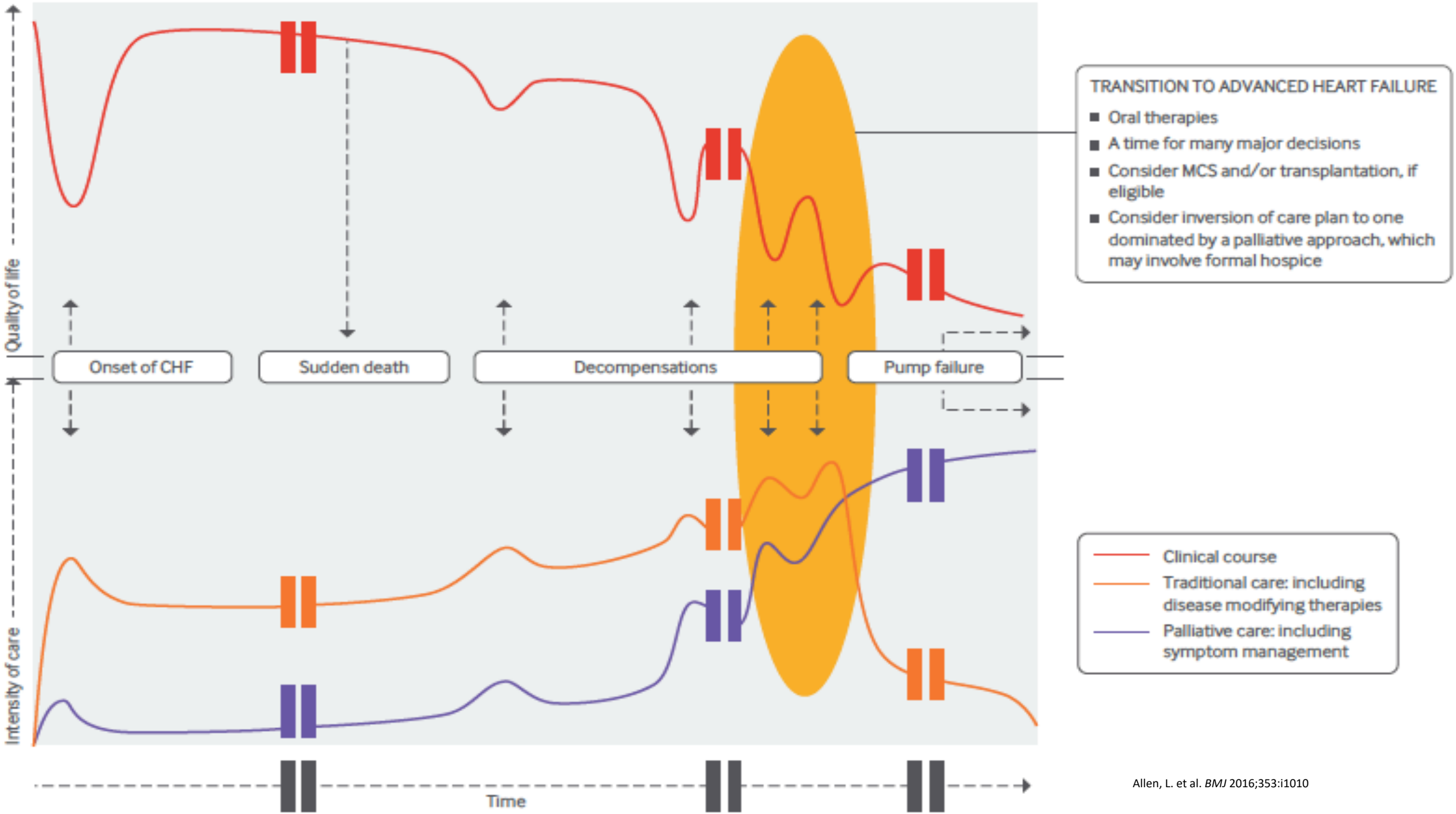
World Health Organization

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."



Allen, L. et al. *BMJ* 2016;353:i1010

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

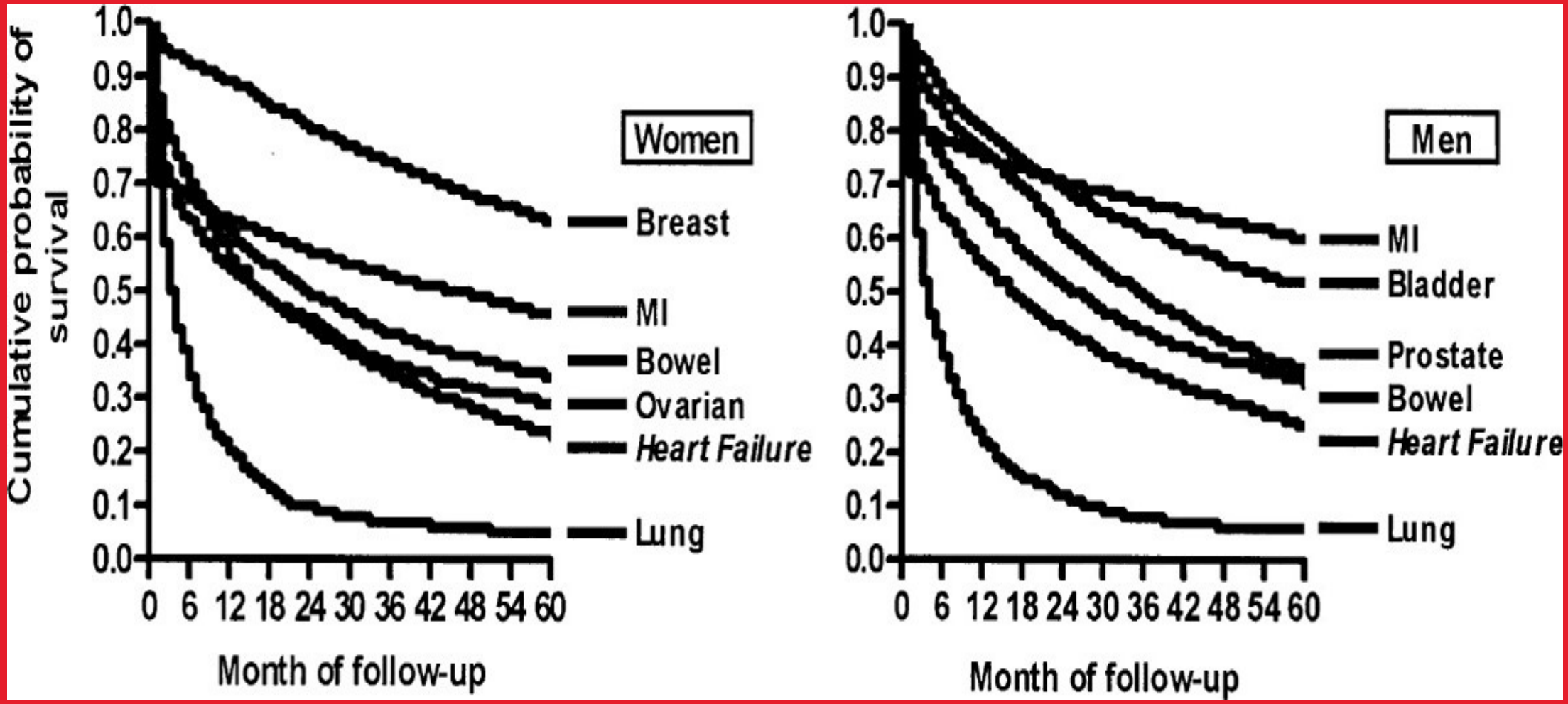
- Similar or worse symptom burden and quality of life than cancer.

Dyspnea	Fatigue
Depression	Anxiety
Insomnia	Decreased function
Pain	Poor cognitive function

- Increasingly complex medical decision making.

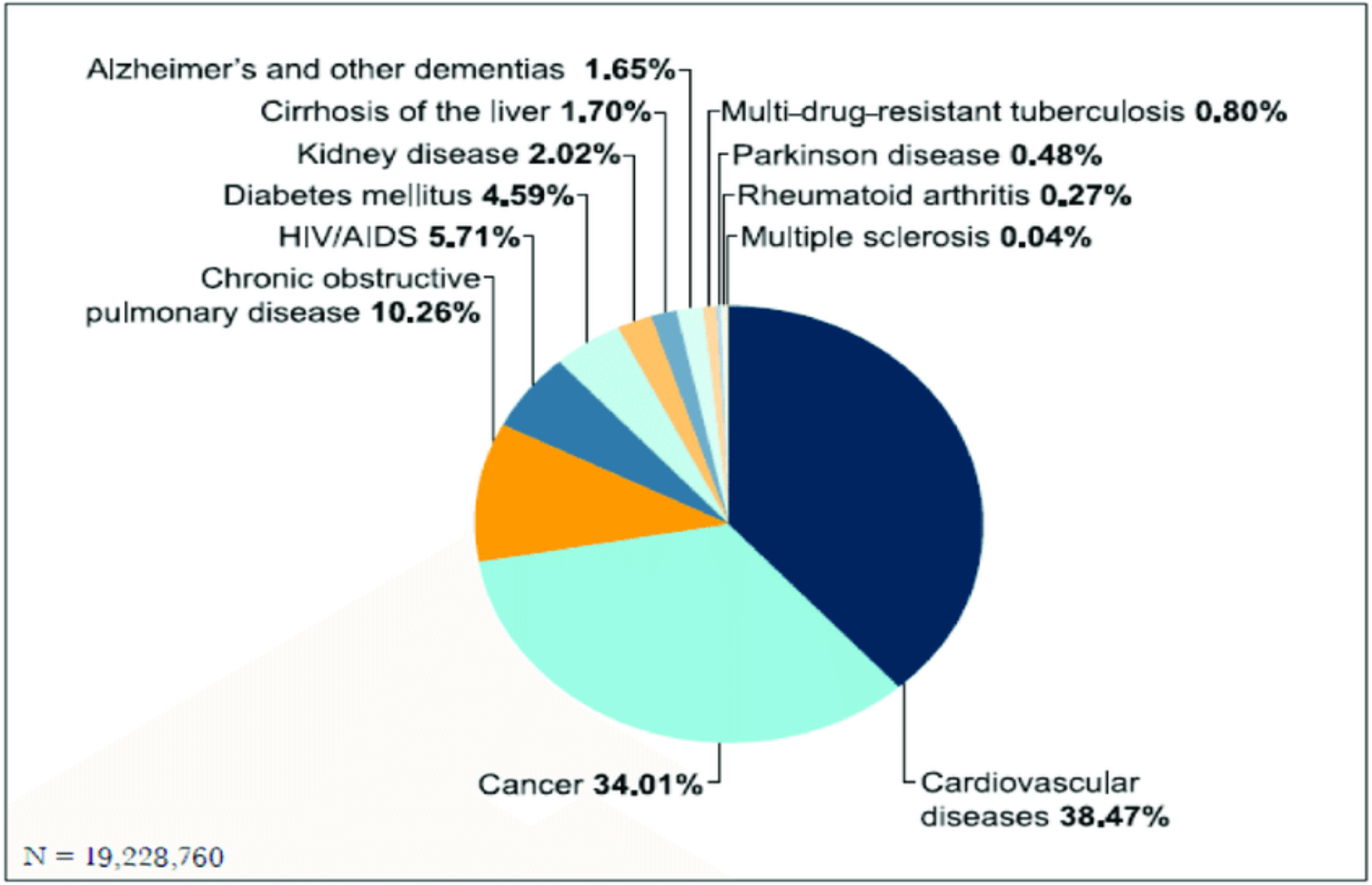
The Journal of heart and lung transplantation. 1992;11(2 Pt 1):273-9.
Lancet. 2003;362(9378):147-58.
Archives of internal medicine. 2004;164(21):2321-4.
Journal of cardiac failure. 2012;18(10):776-83
Journal of hospital medicine : an official publication of the Society of Hospital Medicine. 2012;7(7):567-72
Journal of general internal medicine. 2009;24(5):592-8.

More Malignant than Cancer.



Stewart et al, European Journal of Heart Failure, Volume: 3, Issue: 3, Pages: 315-322

Distribution of adults in need of palliative care at the end of life by disease groups.



World Health Organization 2014

Palliative care in heart failure in Canada

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.

1. Seow, H. et al. BMJ Open 2018; 8:e021147
2. Quinn, K. et al. J Am Heart Assoc 2020; 9 (5)
3. Nazim, A. et al. CJC 34 (2018): 1215-1218

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 Palliatve 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)
Connor SR, et al. J Pain Symptom Manage. 2007 Mar;33(3):238-46.
Annu Rev Public Health 2014. 35: 459-75

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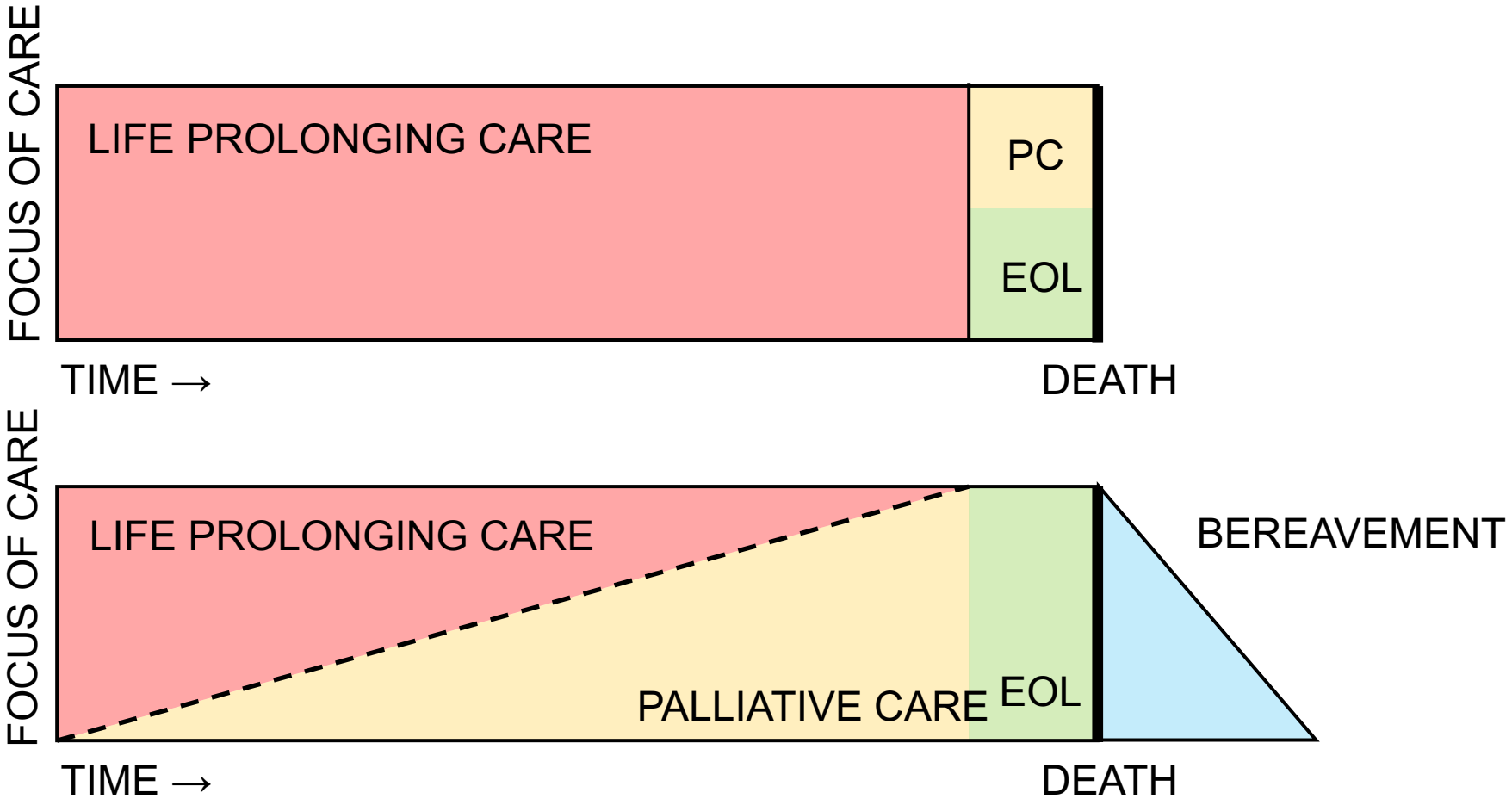
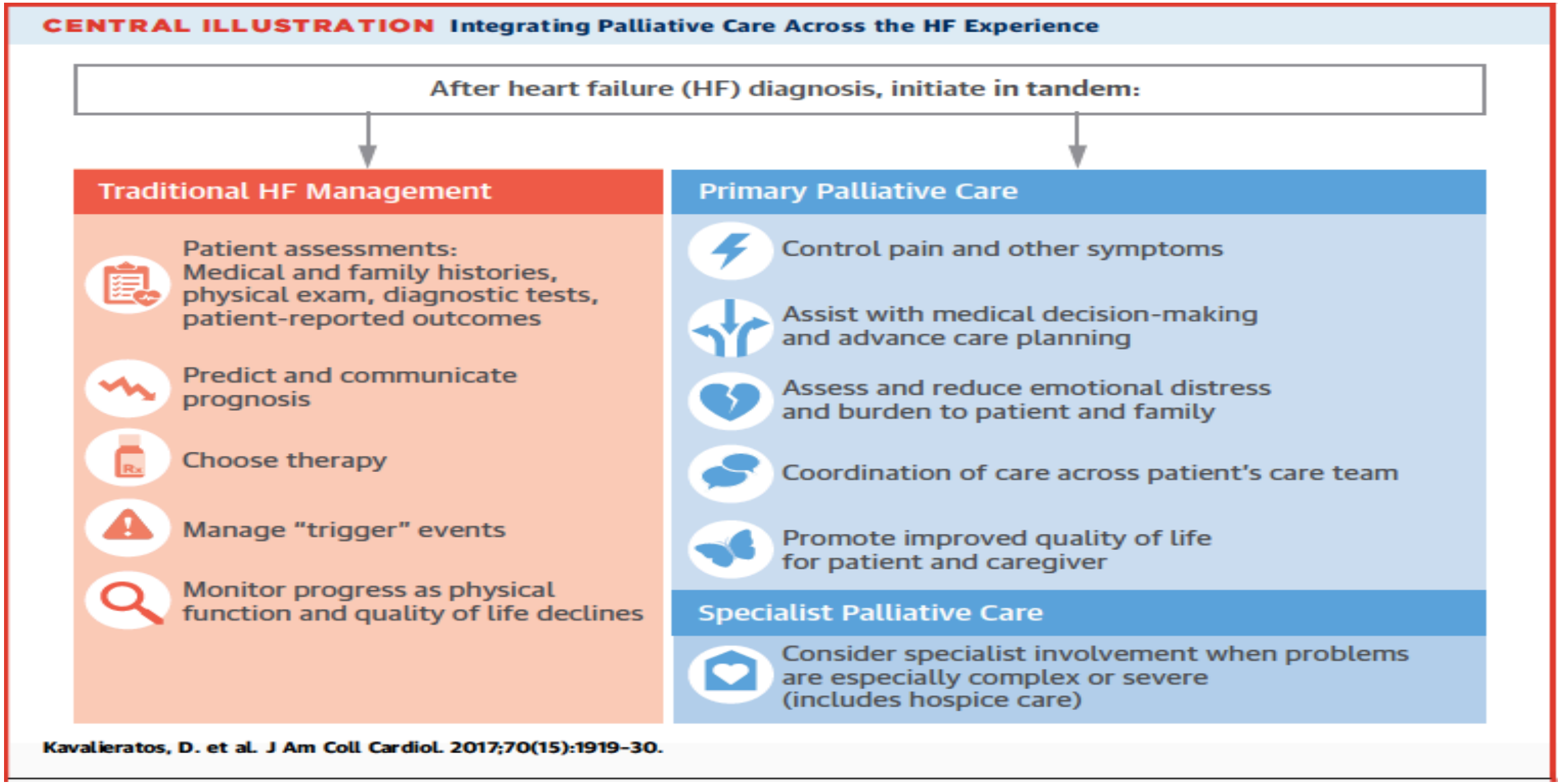
Palliative Care



Adler et al. JAMA. 1999; *281*: 163–168

Palliative Care Model in HF



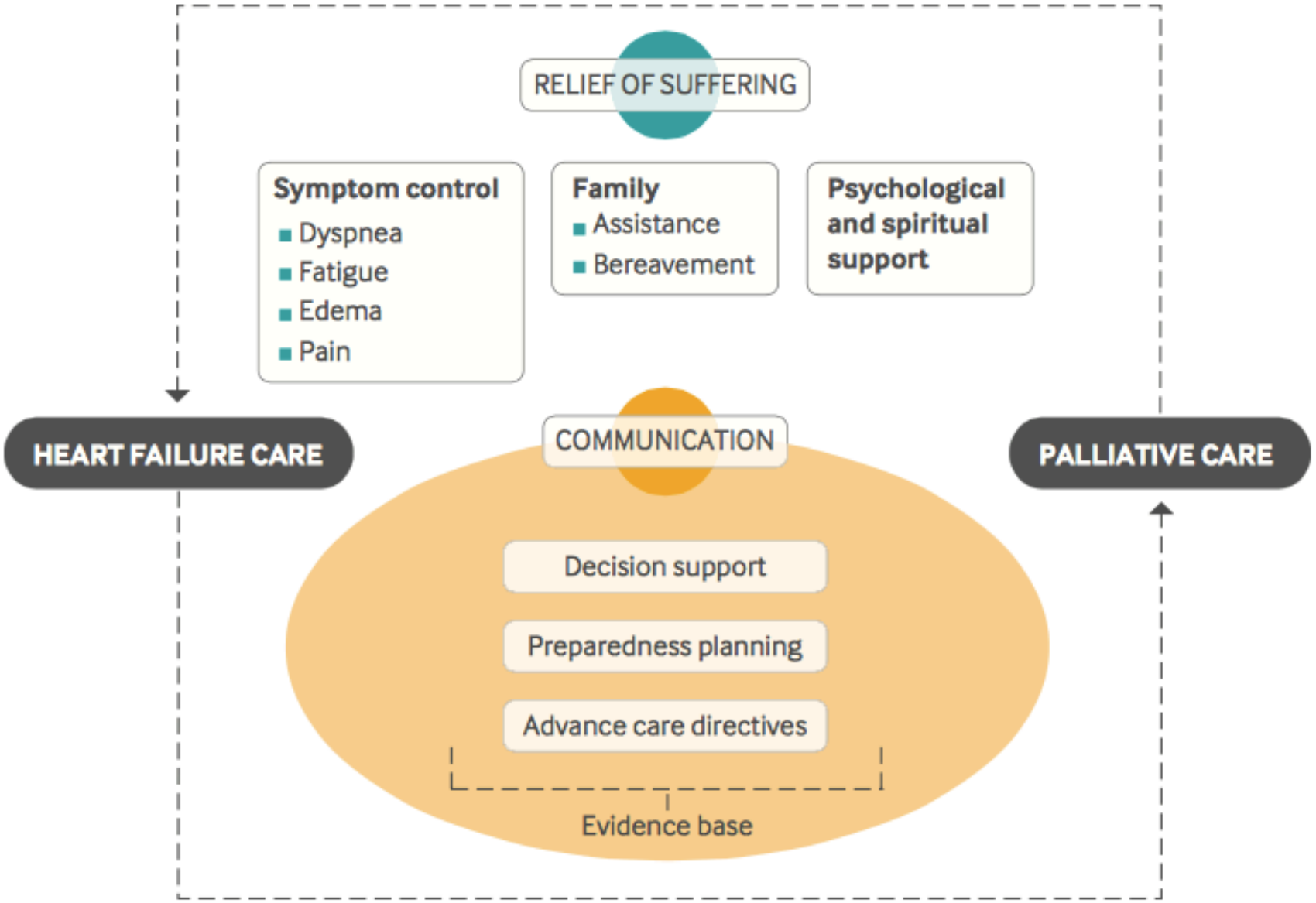
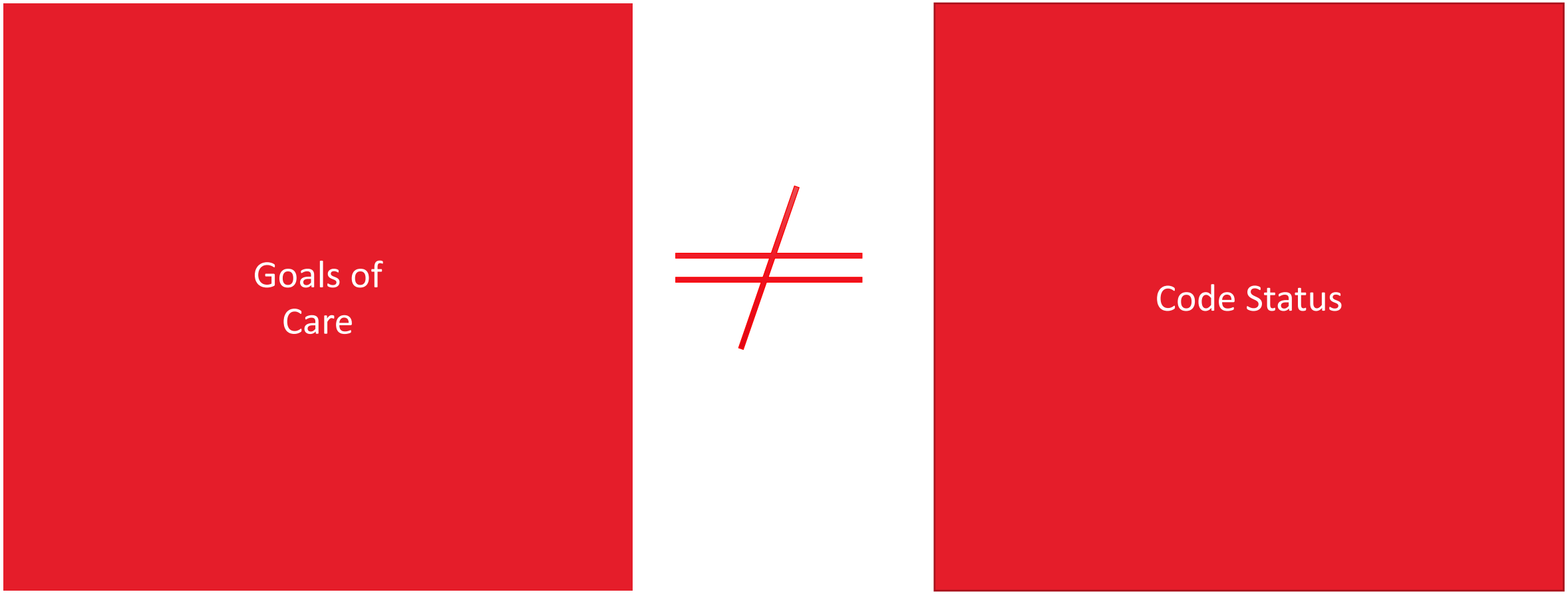


Fig 5| Integration of palliative care and heart failure

Advance Care Planning



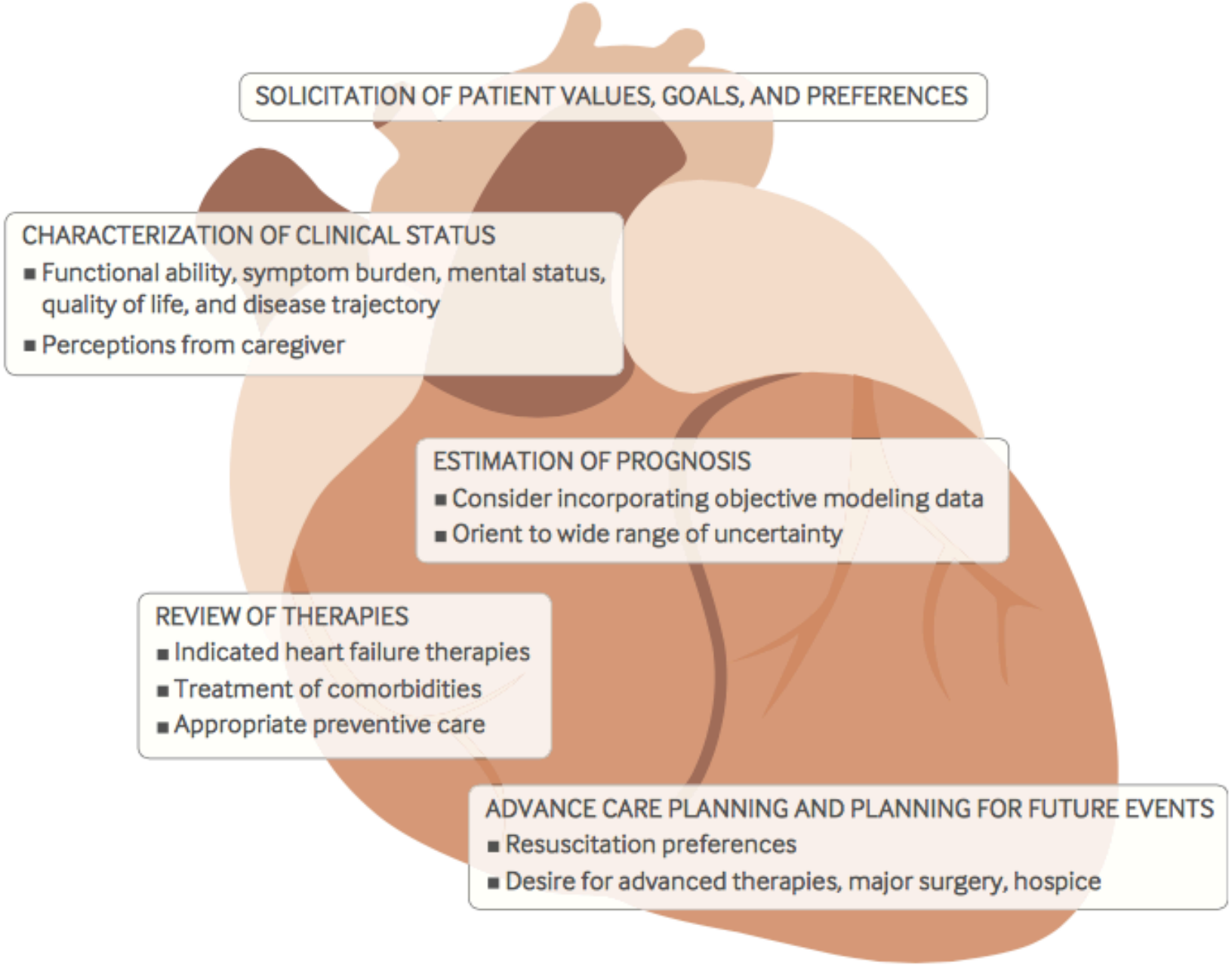
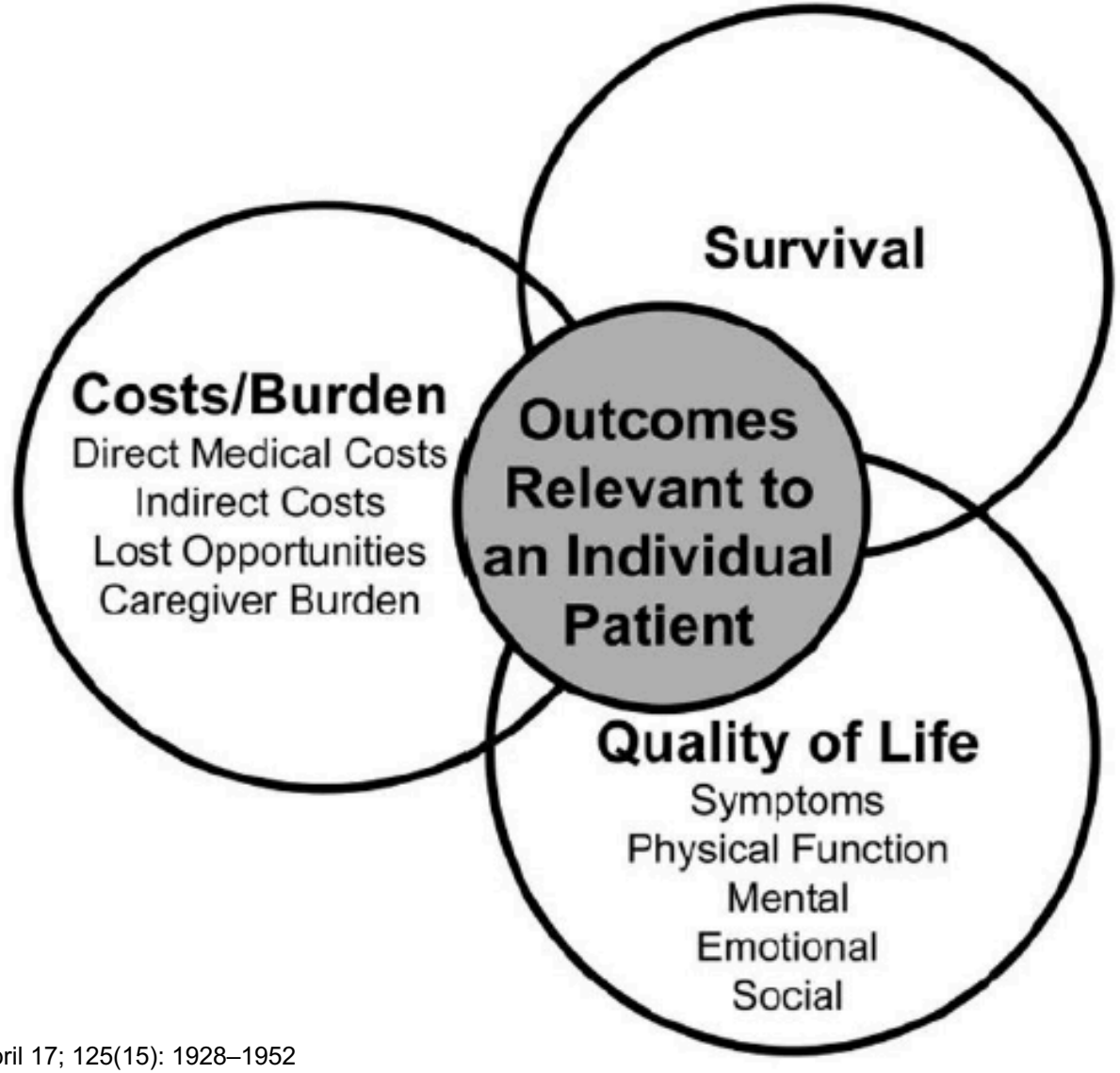


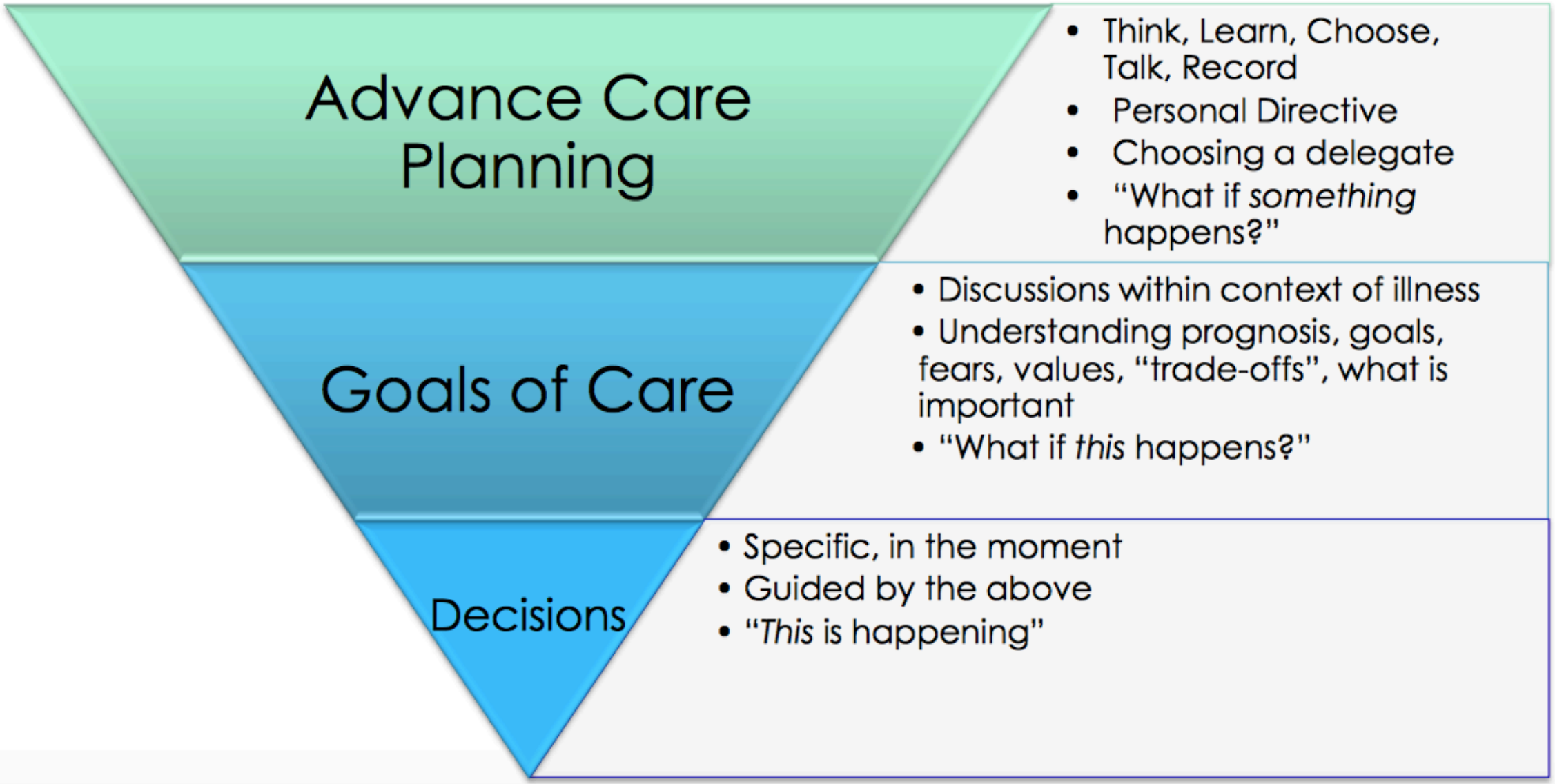
Fig 4 | Components of an annual heart failure review. Adapted, with permission, from Allen and colleagues[39]

McIlvennan, C. Allen, L. BMJ 2016;352:i1010

Establishing Goals and Values

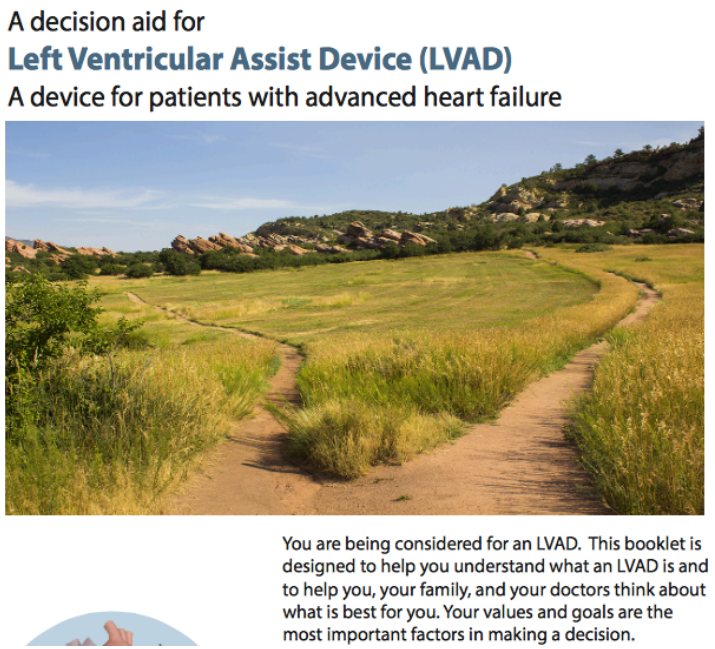


Circulation. 2012 April 17; 125(15): 1928–1952


Advance Care Planning
• Think, Learn, Choose, Talk, Record
• Personal Directive
• Choosing a delegate
• "What if *something* happens?"
Goals of Care
• Discussions within context of illness
• Understanding prognosis, goals, fears, values, "trade-offs", what is important
• "What if *this* happens?"
Decisions
• Specific, in the moment
• Guided by the above
• "*This* is happening"

Improving Communication

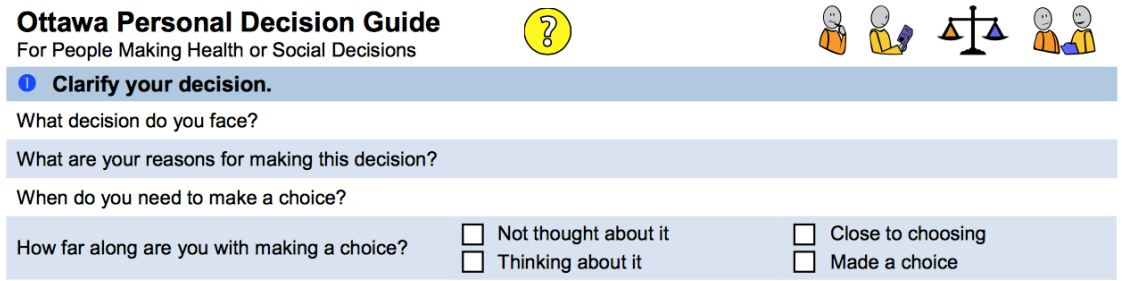
- Patient decision aid
  - Improved patient knowledge
  - Reduced decisional conflict
  - Increased patient decision making


A decision aid for

Left Ventricular Assist Device (LVAD)

A device for patients with advanced heart failure

You are being considered for an LVAD. This booklet is designed to help you understand what an LVAD is and to help you, your family, and your doctors think about what is best for you. Your values and goals are the most important factors in making a decision.


Ottawa Personal Decision Guide

For People Making Health or Social Decisions

Clarify your decision.

What decision do you face?

What are your reasons for making this decision?

When do you need to make a choice?

How far along are you with making a choice?

☐ Not thought about it ☐ Thinking about it ☐ Close to choosing ☐ Made a choice

Circulation. 2012 April 17; 125(15): 1928–1952
Colorado Program for Patient Centered Decisions 2018
Cochrane Database Syst Rev. 2009; (3) CD001431.

Advance Care Planning

www.myspeakupplan.ca

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

Eur Heart J 2012; 33: 1787–1847.
Pain Med 2018 Mar 1;19(3):485-490
Eur J Heart Fail. 2011 Sep;13(9):1006-12
Eur J Heart Fail 2011; 13: 1006–1012.
J Palliat Med 2013: 16: 250–255.

N Engl J Med, 341 (1999), pp. 709-717
Am J Hosp Palliative Care2019 Feb 25:1049909119832816
J Pain Symptom Manage 2010; 39: 831–838
Eur J Heart Fail. 2002; 4: 753–756
2017 CCS HF Guidelines Update

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

Pain Symptom Management 38:698–707
Palliative Medicine 27(9) 822–828
Canadian Family Physician September 2017, 63 (9) 674-680;
Clinical Practice Guideline, Canadian Family Physician 2018, Volume 64.

Nausea

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

Be aware QT prolongation!

- 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

J Support Oncol 6(3):119–124
2017 CCS HF Guideline Update
CFP 2018. 64(2) 111-120.

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

Journal of the American College of Cardiology. 2010;56(9):692-9.
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

2017 CCS HF Guideline Update
Diamant,M et al. Curr Opin Cardiology 2020, 35:156-161

OBJECTIVES

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Triggers for Speciality 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

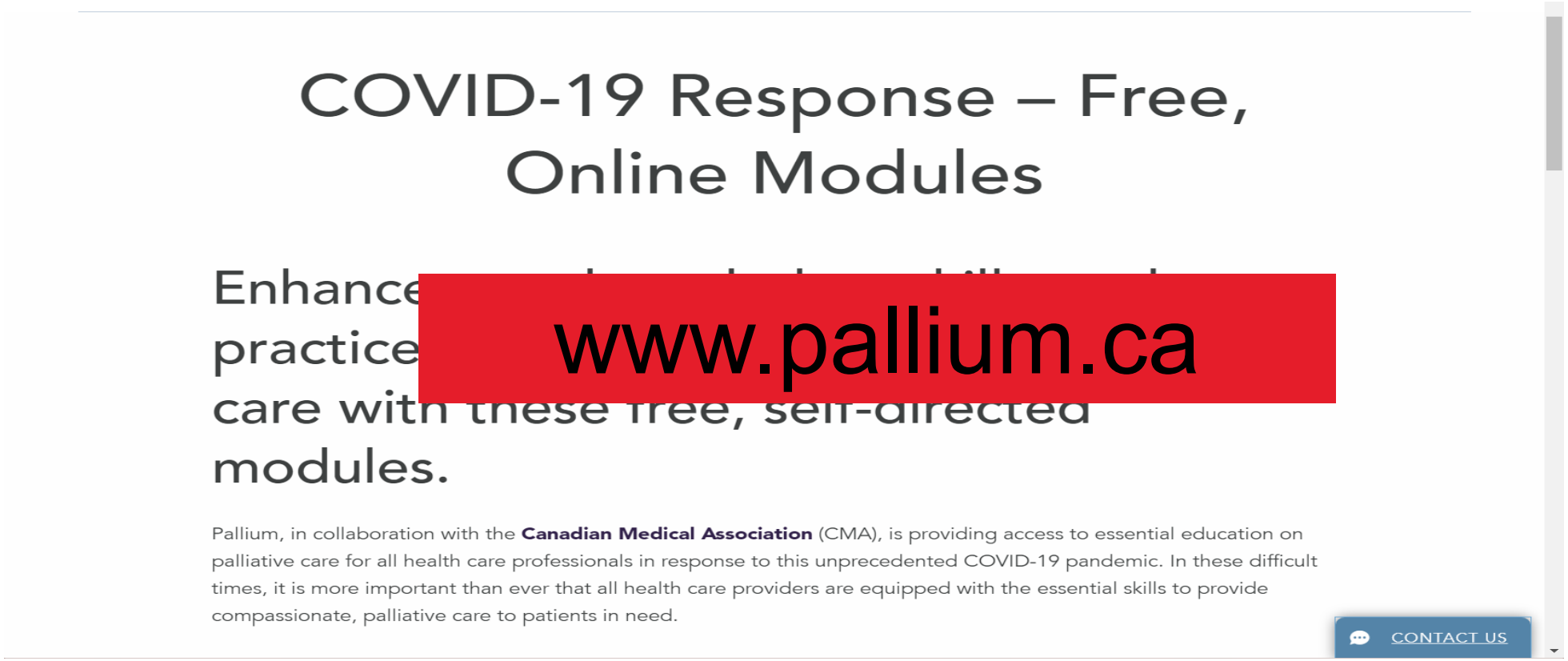
Cardiology/Heart Failure Clinic

Chuzi, S et al. Current Heart Failure Reports 2019; 16:220-228

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

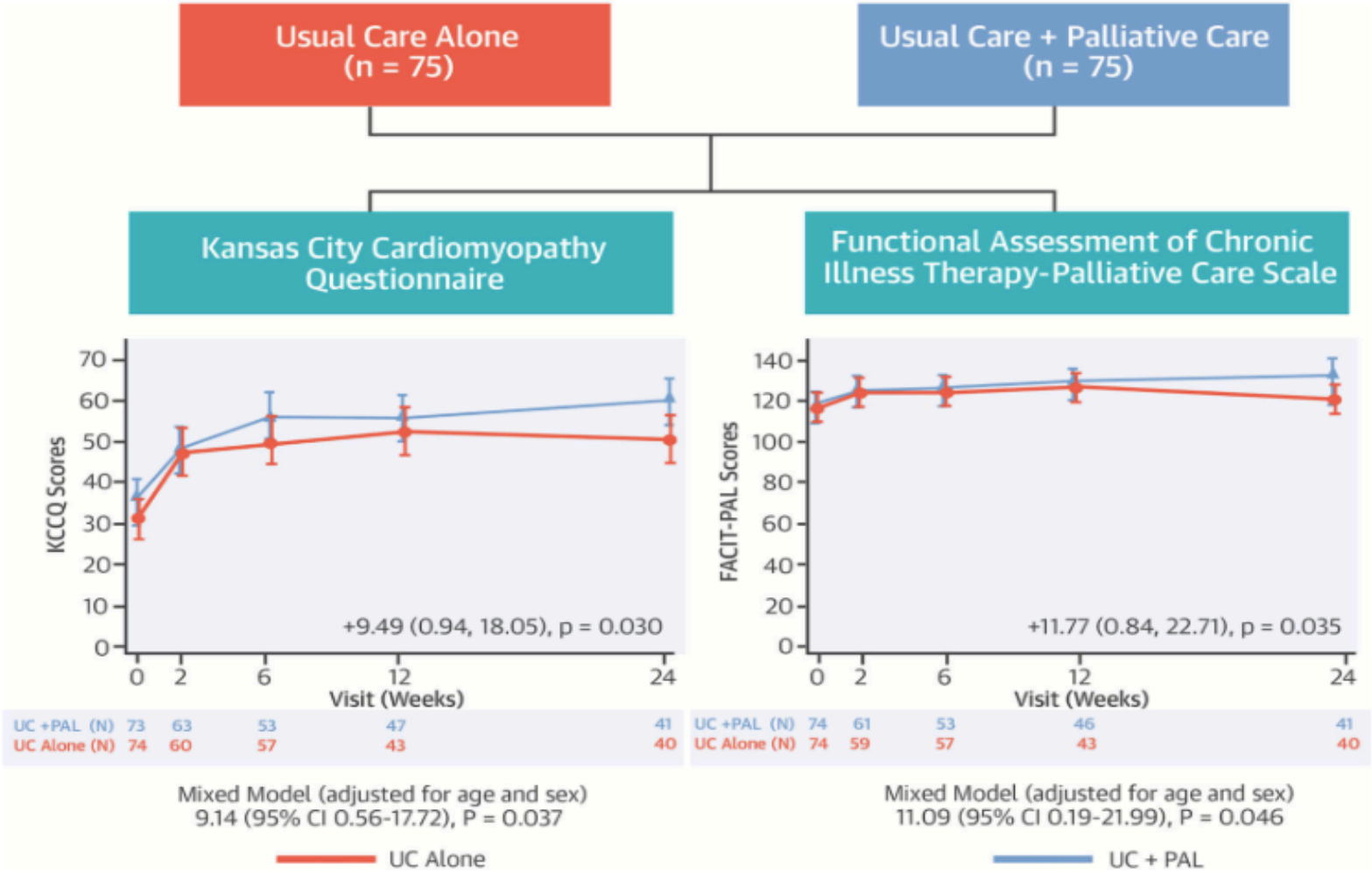
COVID-19 Palliative Resources



https://www.pallium.ca/pallium-canadas-covid-19-response-resources/

Thank you!

PAL-HF



Central Illustration. The PAL-HF study randomized 150 patients with advanced heart failure to usual care or usual care + a multidimensional palliative care intervention

J Am Coll Cardiology 2017 Jul 18;70(3):331-341

JOURNAL OF PALLIATIVE MEDICINE
Volume 20, Number 1, 2017

DOI: 10.1089/jpm.2016.0330

Palliative Care Review
Feature Editor: Vyjeyanthi S. Periyakoil

Palliative Care Interventions for Patients with Heart Failure: A Systematic Review and Meta-Analysis

Michelle S. Diop, BA,[1,2,*] James L. Rudolph, MD, SM,[2–4,*] Kristin M. Zimmerman, PharmD, CGP,[5] Mary A. Richter, MD,[6] and L. Michal Skarf, MD[7,8]

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

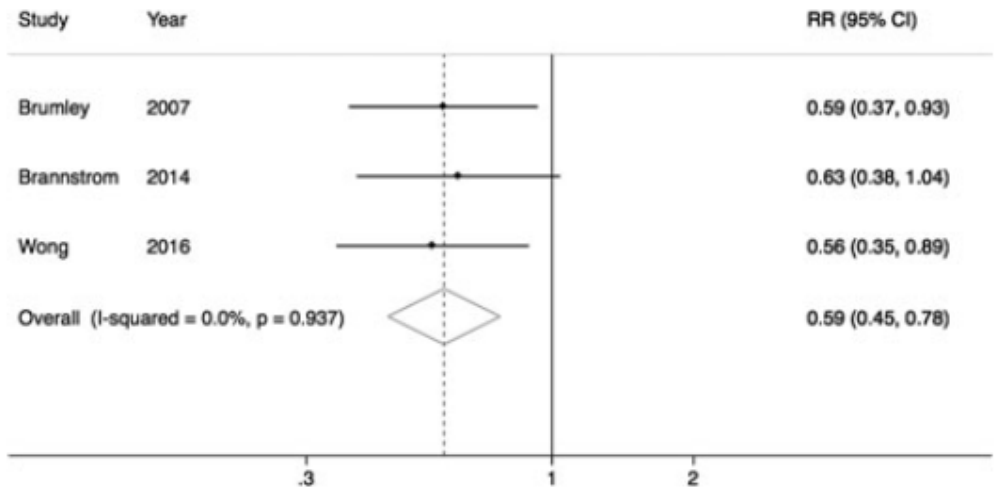


FIG. 2. Meta-analysis of readmissions.

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	
Disease	**Added survival**
CHF	+ 81 days, P = 0.0540
Lung cancer	+ 39 days, P < 0.0001
Pancreatic cancer	+ 21 days, P = 0.0102
Colon cancer	+ 33 days, P = 0.0792
Breast	+ 12 days, P = 0.6136
Prostate	+ 4 days, P = 0.8266

Connor SR, et al. J Pain Symptom Manage. 2007 Mar;33(3):238-46.

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, FAAN[1], DAWN LOMBARDO, MD[2], SHAISTA MALIK, MD, PhD, MPH[3], JENNIFER BALLARD-HERNANDEZ, MSN, NP, AACC[4], MARJAN MOTIE, PhD[5], and SOLOMON LIAO, MD, FAAHPM[6]
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.

J Card Failure. 2012 Dec; 18 (12): 894-899

European Journal of Heart Failure (2014) **16**, 1142–1151
doi:10.1002/ejhf.151

Effects of person-centred and integrated chronic heart failure and palliative home care. PREFER: a randomized controlled study

Margareta Brännström[1]* and Kurt Boman[2]

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

Received 4 March 2014; revised 27 June 2014; accepted 11 July 2014; online publish-ahead-of-print 27 August 2014

Palliative homecare program for patients with Heart Failure

Improved quality of life, symptom burden, NYHA class.

Decreased hospitalization rates compared with usual care.

European Journal of Heart Failure (2014) 16, 1142–1151

JOURNAL OF PALLIATIVE MEDICINE
Volume 18, Number 2, 2015

DOI: 10.1089/jpm.2014.0192

Inpatient Palliative Care for Patients with Acute Heart Failure: Outcomes from a Randomized Trial

Abbey C. Sidebottom, MPH,[1] Ann Jorgenson, RN,[1] Hallie Richards, MD,[2] Justin Kirven, MD,[2] and Arthur Sillah, MPH[1]

- 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

	HR (95%CI)[a]	P *value*
Readmission within 30 days		
Intervention (ref control)	1.43 (0.5, 4.1)	0.501
Advance care planning within 6 months		
Intervention (ref control)	2.87 (1.09, 7.59)	0.033
Hospice use within 6 months		
Intervention (ref control)	1.60 (0.58, 4.38)	0.360
Death within 6 months		
Intervention (ref control)	1.90 (0.88, 4.09)	0.101

[a]The hazard ratios (HR) are adjusted for age, sex, and marital status.
CI, confidence interval.

ORIGINAL ARTICLE

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 Sham[4]

Table 2 Readmission at 4 and 12 weeks

	Control (n=41)	Intervention (n=43)	p Value
Number of readmissions at 4 weeks (mean, SE)	0.41 (0.10)	0.21 (0.07)	0.10
Number of readmissions at 12 weeks (mean, SE)**	1.10 (0.16)	0.42 (0.10)	0.001
Readmissions within 28 days (n, %)			
No	29 (70.7%)	34 (79.1%)	0.38
Yes	12 (29.3%)	9 (20.9%)	
Readmissions within 84 days (n, %)*			
No	16 (39.0%)	29 (67.4%)	0.009
Yes	25 (61.0%)	14 (33.6%)	

Tested using Poisson regression and χ^2 test. *p<0.05; **p<0.01.

Heart 2016;102:1100–1108

Goals of Integrating Palliative Care

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