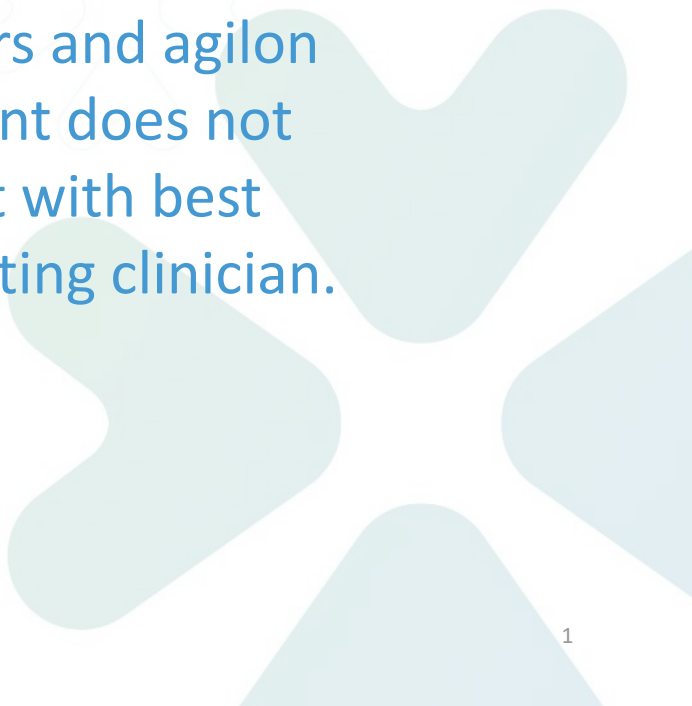


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# Exploring the Integration of Palliative Care in Advanced Heart Failure

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06.10.2025



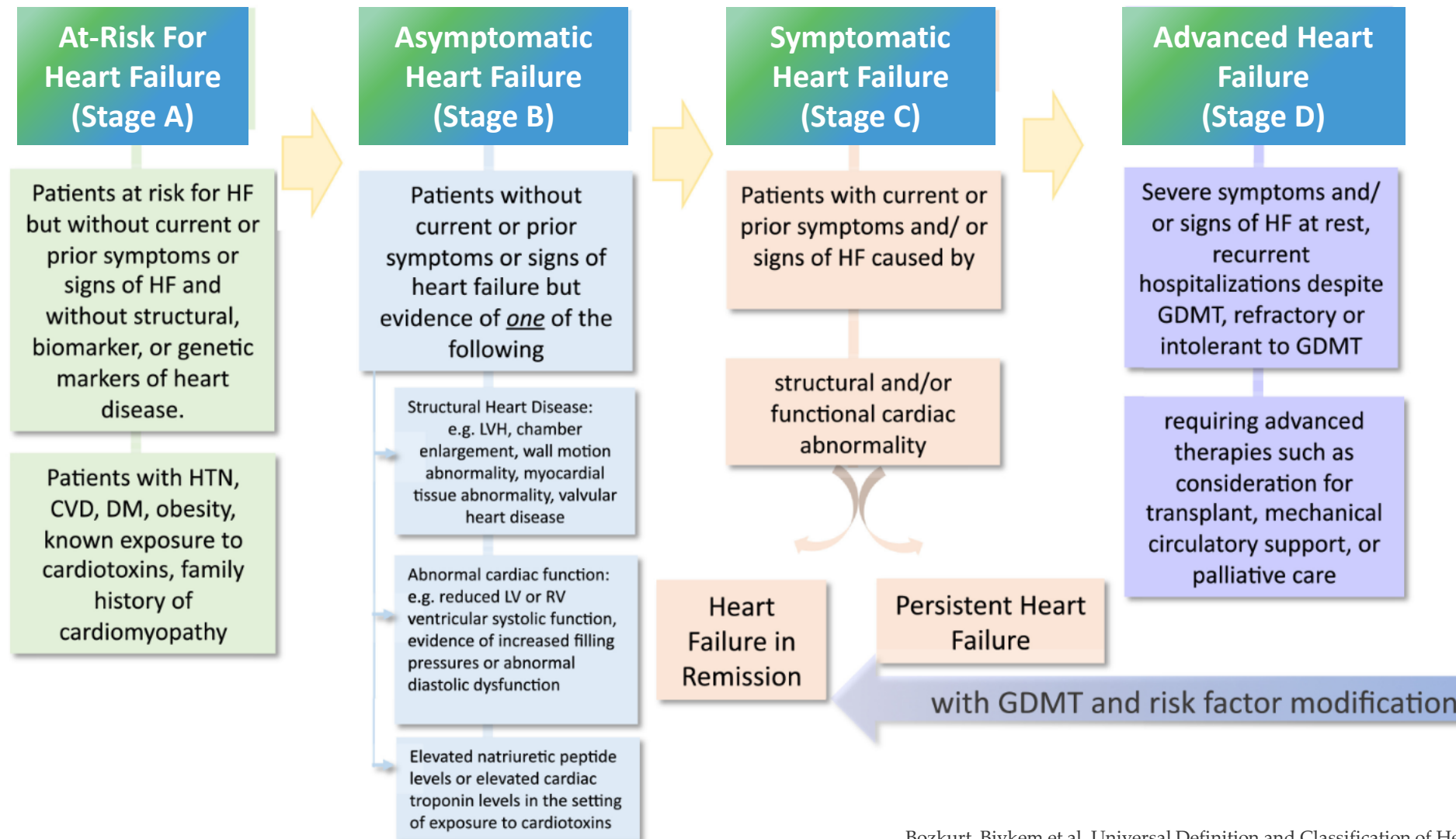


# Learning Objectives

- To define palliative care and hospice care and explore their integration into heart failure management throughout the continuum of disease.
  - To review the various symptoms of advanced heart failure and potential management strategies.
  - To discuss communication strategies in advanced illness including the integration of shared decision making and preparedness planning.
- 

# What is the Current State of Heart Failure in the United States?

# Heart Failure is a Progressive Disease



Bozkurt, Biykem et al. Universal Definition and Classification of Heart Failure, Journal of Cardiac Failure, Volume 27, Issue 4, 387 – 413.

# Understanding the Potential Impact of Heart Failure

- According to the Heart Failure Society of America (HFSA.org):
  - Prevalence
    - Approximately 6.7 million Americans aged 20 and older are living with heart failure.
    - This number is projected to rise to 8.7 million by 2030 and 11.4 million by 2050.
  - Mortality Rate
    - Heart failure directly accounts for about 8.5% of all heart disease deaths in the U.S.
- Economic Burden
  - Current Costs:
    - As of 2022, the annual cost of heart failure in the U.S. is estimated to be around \$70 billion.
    - The economic burden of cardiovascular disease, including heart failure, is expected to increase substantially in the coming decades



Increase in HF related deaths from 2009 to 2014.



Increase in HF hospitalizations from 2013 to 2017.

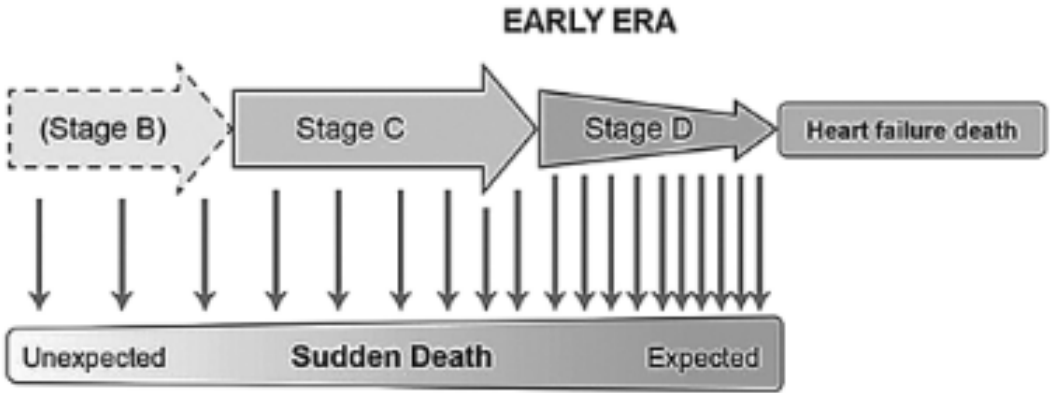


Decline in overall HF incidence from 2011 to 2014 with declining incidence of HFrEF but increasing incidence of HFpEF.

# Epidemiology of Heart Failure in the United States

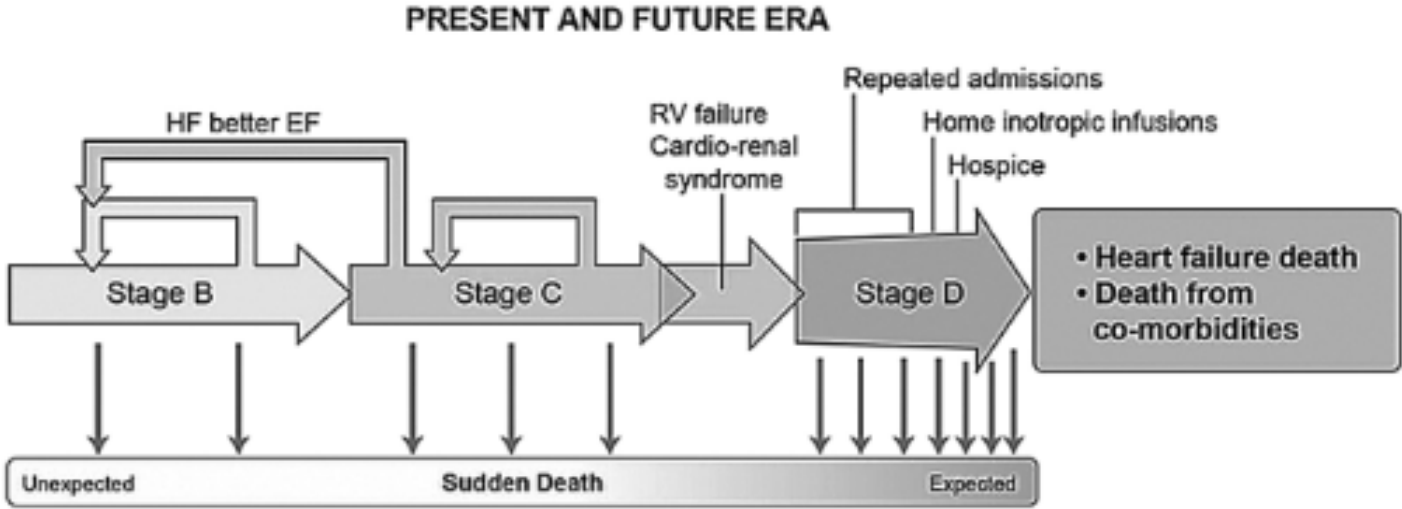
Heidenreich, Paul A. Butler, Javed et al. Economic Issues in Heart Failure in the United States. *Journal of Cardiac Failure*, Volume 28, Issue 3, 453 – 466.

# The Evolution of the Journey of Heart Failure



The Experience During the Early Days of Heart Transplant

Current Experience with Modern Therapeutic Options

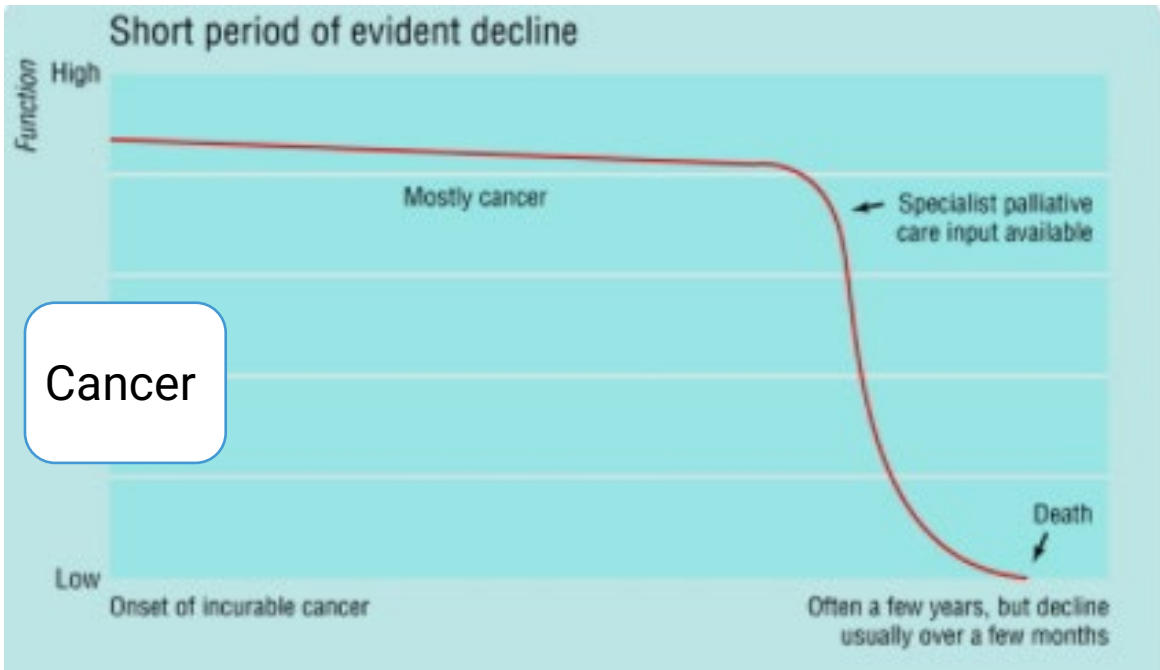


Gelfman, LP, et al. The State of the Science on Integrating Palliative Care in Heart Failure. *Jl of Pall Medicine*, 20(6), 2017.

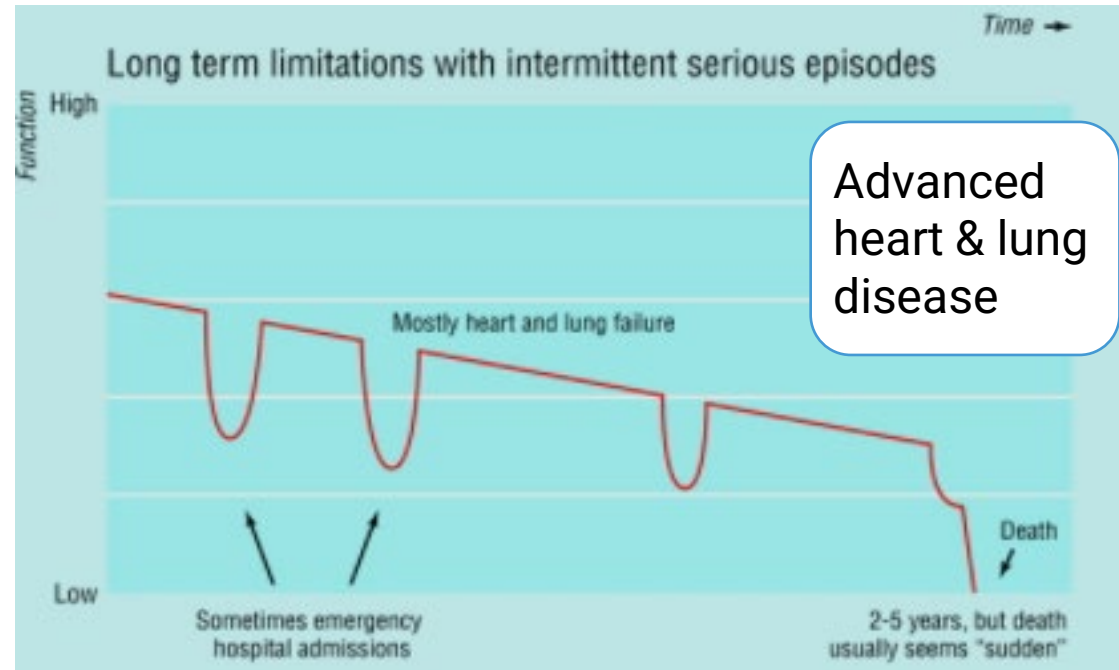
# Unique Challenges of Heart Failure

- Improved medical therapies including guideline-directed medical therapy (GDMT) and cardiac devices have improved patient survival both for HFrEF and HFpEF.
- This has increased the number of patients surviving to advanced HF.
- HF symptoms can greatly affect quality of life and include physical, psychological, and spiritual impacts.
- Caregiver burden can be high due to disease progression and symptom burden.
- Difficulty with prognostication for individual patients v. prognostication at the population health level.
- For patients with HF, the prevalence of poor quality of life (QOL), the untreated HF symptom burden (dyspnea, pain, anxiety, and depression), and the high rate of acute care services use in the 30 days before death (emergency department [ED] visits: 64% vs. 39%, hospitalizations: 60% vs. 45%, and ICU admissions: 19% vs. 7%) exceeds that of cancer.

Gelfman, LP, et al. The State of the Science on Integrating Palliative Care in Heart Failure. *Jl of Pall Medicine*, 20(6), 2017.

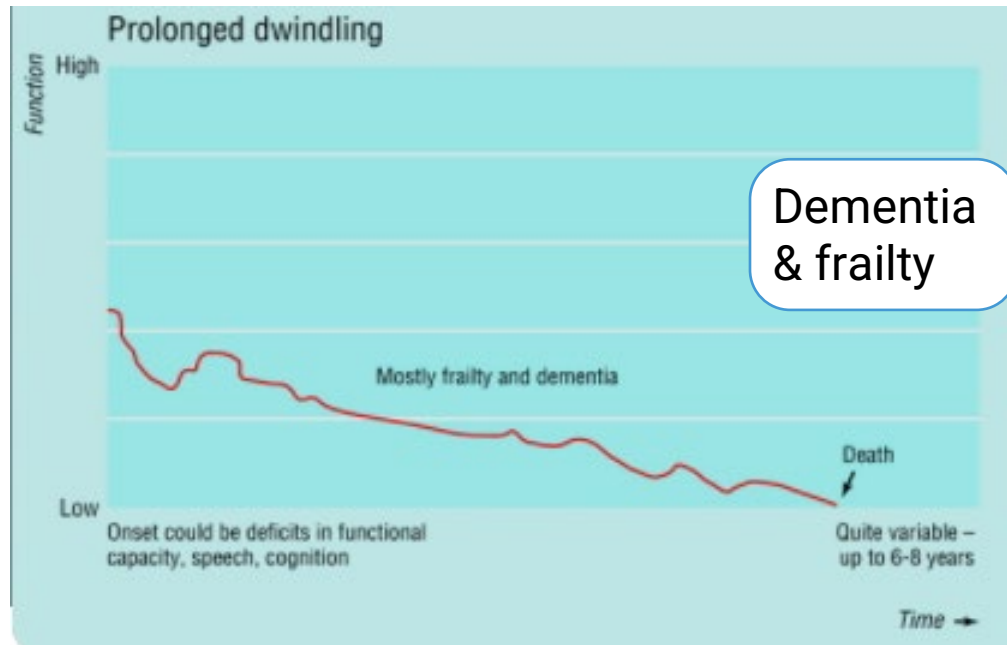


Cancer



Advanced heart & lung disease

# Different Illness Trajectories



Dementia & frailty

Murray S, et al. *Illness trajectories and palliative care*. BMJ, 2005.

**Increased survival coupled with complex and variable symptoms**

**Caregiver fatigue and burnout**

**Prognostic uncertainty and challenging conversations**

**The challenges faced by providers and our patients and their families...What are the options??**

**Unique Unmet Patient and Family Needs**



# Palliative Care & Hospice: The Needed Layer of Support in Heart Failure Care

# World Health Organization Definition of Palliative Care

“Palliative care (PC) is an approach that improves the quality of life of patients – adults and children – and their families who are facing problems associated with life-threatening illness. It prevents and relieves suffering through the early identification, impeccable assessment and treatment of pain and other problems, whether physical, psychosocial, or spiritual.”

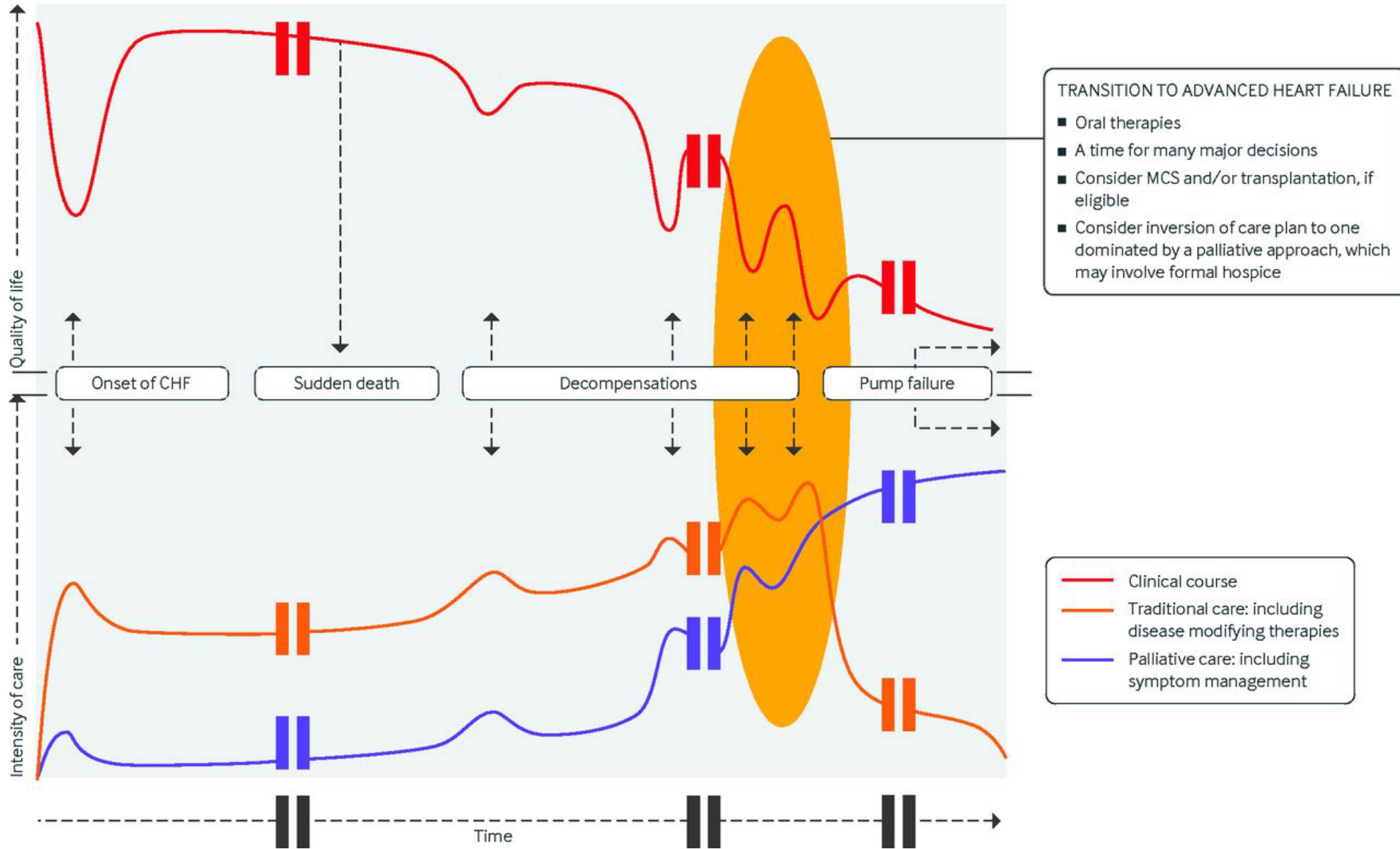
**KEY CONCEPT:** “Palliative care is applicable early in the course of illness, in conjunction with other therapies that are intended to prolong life, such as chemotherapy or radiation therapy, and includes those investigations needed to better understand and manage distressing clinical complications.”

**For advanced heart failure this means palliative care is applicable/appropriate with the use of ALL includes drugs, devices, transplants.**

# Hospice Defined by Medicare...Hospice is defined by the payor

- Hospice is a comprehensive, holistic program of care and support for terminally ill patients and their families. Hospice care changes the focus to comfort care for pain relief and symptom management instead of care to cure the patient's illness.
- Very specific type of palliative care focused on those with a prognosis of six or fewer months
- Covered by Hospice Medicare Benefit (Part A)
- Exhaust or forego disease modifying therapies that focus on life prolongation.
- Focus on comfort and quality of life
- Some data shows hospice prolongs life expectancy (HF, lung cancer, pancreatic cancer) and drive cost savings (often dependent on earlier enrollment)
- >90% hospice care delivered in the home and requires recertification at specified time periods.

**Clinical course of heart failure with associated types and intensities of available therapies and incorporation of palliative care.**



Colleen K McIlvennan, and Larry A Allen. *Palliative care in patients with heart failure*. BMJ 2016.

# Does it make sense to consider integrating palliative care & HF??

- Consider the definition of palliative care with HF in mind:
  - Focus of preventing and relieving suffering
  - Supporting QOL
  - Assisting with advanced care planning
  - Regardless of the stage of illness and while pursuing life sustaining treatments.
- **HF is highly symptomatic with unpredictable clinical trajectory, high risk of death, major impact on QOL, thus...**

# What do our experts say about palliative care and HF??

- Multiple cardiology practice guidelines from AHA, ACC, ESC, HFSA all recommend using palliative care in heart failure.
- In real life...
  - PC and hospice are underutilized
  - Focuses on inpatient care predominately
  - Often occurs late in the disease course (last month of life)
  - Despite a preference for patients to die at home, regardless of their disease, HF patients are more likely to die in a medical facility compared to cancer patients.

# So how do we get the best of all our options???

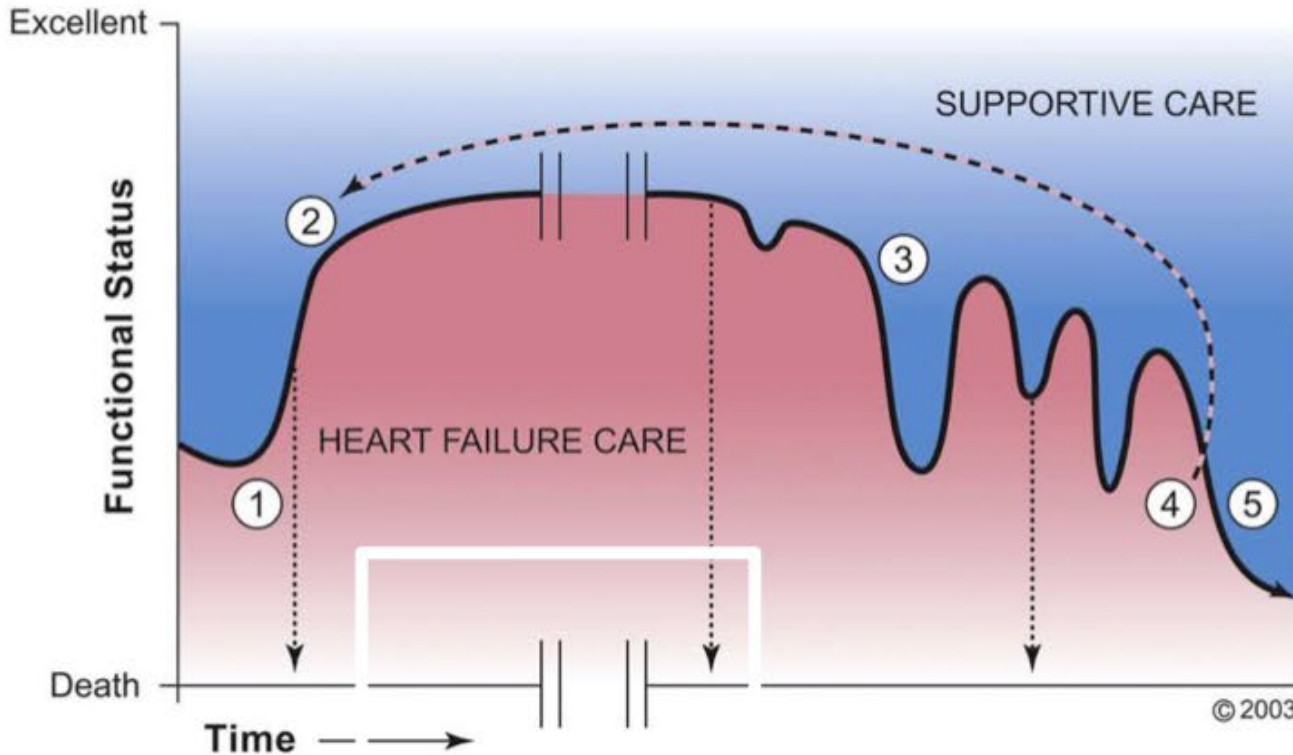
- If our advanced heart failure patients will benefit from the support of palliative care, how do we integrate that early to maximize the benefit?
- How do we get holistic and comprehensive palliative care paid for???. This remains a reimbursement challenge.
- Ideally, we want the home-based supportive care of full hospice paired with life sustaining heart failure treatments delivered in an integrated model that is fully aligned with the patient's goals of care and ensures the development of trusted relationships and strong communication.



# Applying Palliative Care to Heart Failure:

Practical Approaches to Integrated  
Cardiovascular and Palliative Care

# Integrating palliative or “supportive” care in HF



**Schematic course of Stage C & D Heart Failure**

- ..... Sudden Death Event
- Transplant or Ventricular Assist Device

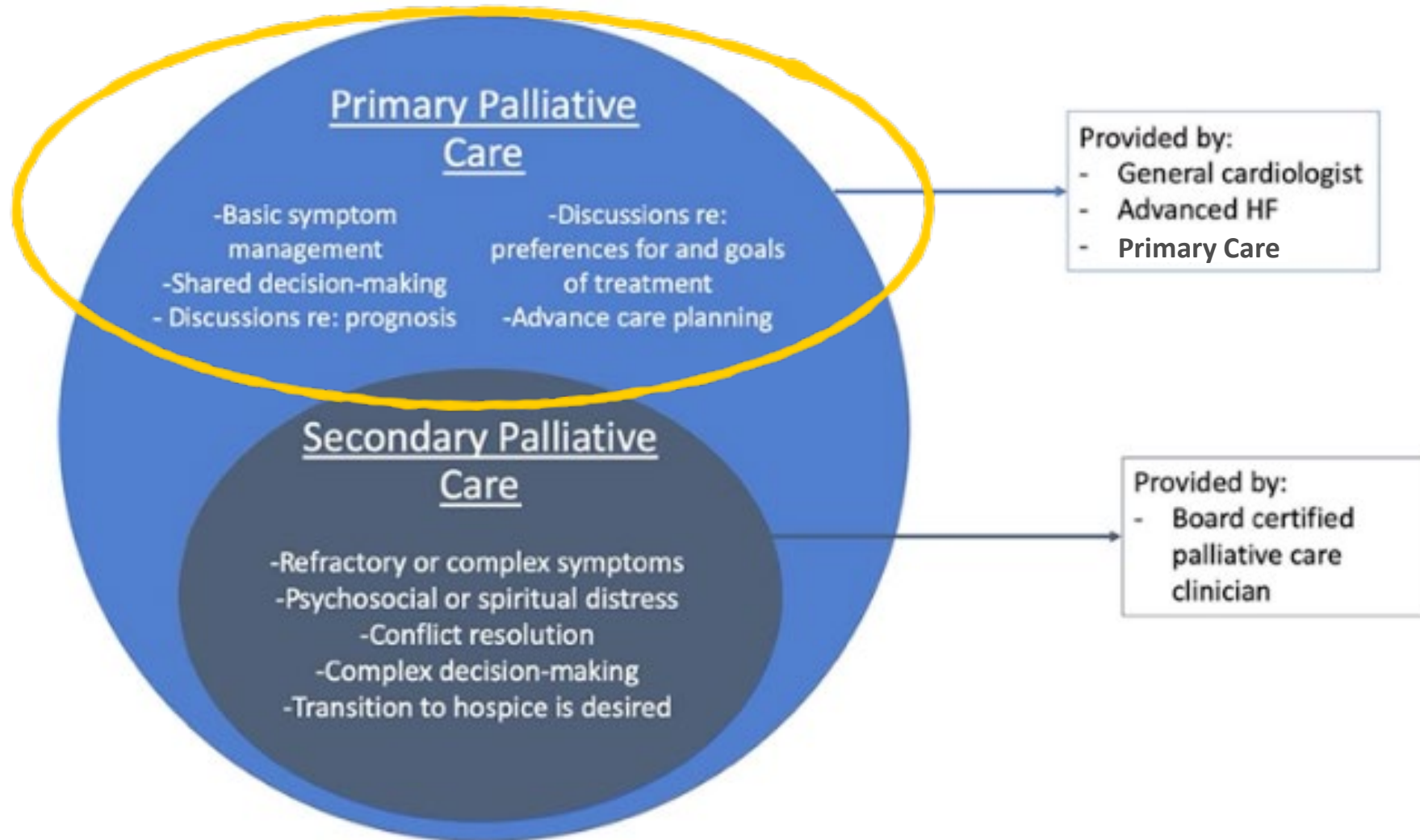
(1) Initial symptoms of HF develop and HF treatment is initiated.  
 (2) Plateaus of variable length may be reached with initial medical management, or following mechanical support or heart transplant  
 (3) Functional status declines with variable slope, with intermittent exacerbations of HF that respond to rescue efforts  
 (4) Stage D HF, with refractory symptoms and limited function  
 (5) End of life

Sudden death may occur at any point along the course of illness.

Heart failure and supportive care always go hand in hand, each having more or less focus depending on the patient’s clinical and functional decline as well as goals of care.

Puckett, C and Goodlin, SJ. *A Modern Integration of Palliative Care Into the Management of Heart Failure*, Canadian JI of Cardiology, 2020

# Strategies to Integrate PC into HF Care



Chuzi S, et al. *Role of Palliative Care in the Outpatient Management of the Chronic Heart Failure Patient.* Curr Heart Fail Rep, 2019.

# Components of an annual heart failure review

SOLICITATION OF PATIENT VALUES, GOALS, AND PREFERENCES

CHARACTERIZATION OF CLINICAL STATUS

- Functional ability, symptom burden, mental status, quality of life, and disease trajectory
- Perceptions from caregiver

ESTIMATION OF PROGNOSIS

- Consider incorporating objective modeling data
- Orient to wide range of uncertainty

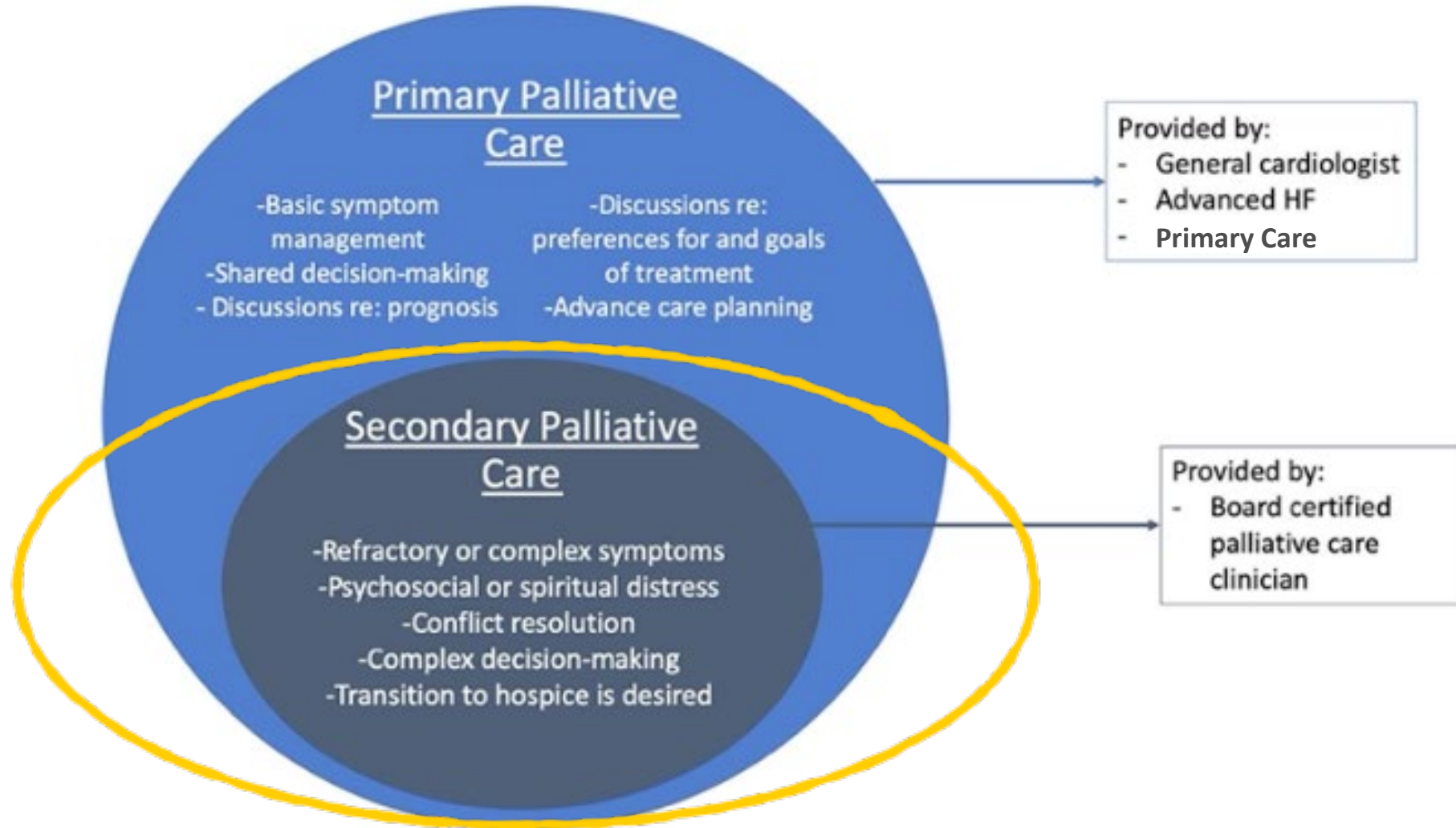
REVIEW OF THERAPIES

- Indicated heart failure therapies
- Treatment of comorbidities
- Appropriate preventive care

ADVANCE CARE PLANNING AND PLANNING FOR FUTURE EVENTS

- Resuscitation preferences
- Desire for advanced therapies, major surgery, hospice

# Strategies to Integrate PC into HF Care



Chuzi S, et al. *Role of Palliative Care in the Outpatient Management of the Chronic Heart Failure Patient.* Curr Heart Fail Rep, 2019.

Triggers for Conversations  
for Palliative Care and  
Advanced Therapies

<b>F</b>	Frailty ↓ Functional status or falls	
<b>L</b>	Low output Low BP	Low Na+ Low GFR
<b>A</b>	Admissions Adherence (lack of)	Anorexia Ascites
<b>M</b>	Medications	↓ GDMT ↑ Diuretics
<b>E</b>	Extra problems (new co-morbidities) Extra therapies (LVAD, transplant, inotropes)	
<b>S</b>	Shocks Surprise question Substance Use	Symptoms worsening or @ rest

# Brief Review of Symptom Management

# Symptom Management of End Stage HF

## Dyspnea

### Etiology

- Multifactorial
- Related to respiratory changes
  - Changes in lung stiffness, dead space, VQ mismatch, increased work of breathing and impaired ventilation with diaphragmatic splinting (HSM, ascites)
- Central chemoreceptors responding to changes in CO<sub>2</sub> and pH
- Muscular due to skeletal muscle wasting
- Myocardial (ischemia)
- Psychological and social
  - Anxiety and fear
  - Compliance and adherence issues

### Treatment Options

- Evidence based HF treatment
- Loop diuretics, including intravenous diuretics for congestion
- Opioids – reduce hypoxic ventilatory drive – may unload volume by acting on opioid receptors in the lung.
  - Variable results earlier in disease but often needed in advanced stages.
  - Avoid morphine when renal dysfunction exists and consider oxycodone or hydromorphone.
- Oxygen supplementation in the absence of hypoxemia is not effective, although some patients do report symptomatic benefit therefore, only for patient comfort. Often a fan is adequate to relieve breathlessness.
- Exercise training as tolerated can improve dyspnea as well as pain and fatigue.

# Symptom Management of End Stage HF

## Pain

### Etiology

- Occurs in 40-75% of HF patients
- PAIN-HF trial characterized the experience of pain in advanced heart failure patients.
  - Severe to very severe pain 1/3 of the time
  - Predictors of pain included DJD, dyspnea and angina.
- Pain can be cardiac in nature due to cardiac ischemia. Remember patients without ischemic heart disease experience “angina/chest pain”.
- Noncardiac causes: musculoskeletal, gout, abdominal distention/edema, peripheral vascular disease, neuropathic pain.

### Treatment is guided by the underlying etiology

- Local treatment with heat/cold therapy, physical therapy, topical salicylates or capsaicin or joint infections if indicated
- Low-dose opioids used sparingly (except at end of life).
- Exercise program as tolerated.
- Pain associated with ischemic heart disease is managed with antianginals, EECF, TMR and there are some interventional pain management options (thoracic spinal cord stimulator, thoracic epidural analgesia)
- Avoid NSAIDs for musculoskeletal pain due to the impact on fluid and sodium retention as well as potential adverse renal effects.

# Symptom Management of End Stage HF

## Fatigue

- ◆ Common secondary to worsening HF, deconditioning, depression/anxiety, elevated neurohormones, anemia, sleep disordered breathing.
- ◆ Management
  - ◆ Energy conserving strategies (planning your day to maximize rest and periods of activity/exertion).
  - ◆ Exercise program for reconditioning as tolerated.
  - ◆ Screen for underlying psychiatric issues
  - ◆ Treat anemia
    - ◆ Iron deficiency anemia is associated with lower exercise capacity and is an independent predictor of mortality.
    - ◆ IV iron can improve QOL and functional class in HFrEF patients.
  - ◆ Use of CPAP for those with sleep disordered breathing to improve sleep quality and 6min walk

Puckett, C and Goodlin, SJ. *A Modern Integration of Palliative Care Into the Management of Heart Failure*, Canadian JI of Cardiology, 2020

# Symptom Management of End Stage HF Depression

- 1 in 5 patients with HF meets criteria for a major depressive disorder and a greater number report depressive symptoms.
- Depressive symptoms are highly correlated with decreased QOL, increased pain and worsened clinical outcomes including risk of readmission, poor medication adherence, increased substance use issues.
- Grief associated with the diagnosis, complexity of treatments including MCS/transplant can impact mental health.
- Management:
  - Antidepressants: safest in HF include the SSRIs and alpha-2 antagonists (mirtazapine)
  - Cognitive behavioral therapy
  - Exercise training
  - Combining CBT and exercise have the best outcomes

Ghosh, RK, et al. *Depression in heart failure: Intricate relationship, pathophysiology and most updated evidence of interventions from recent clinical studies.* International JI of Card, 2016.

# Recent Data on HF/PC Integration

# Pal-HF Study

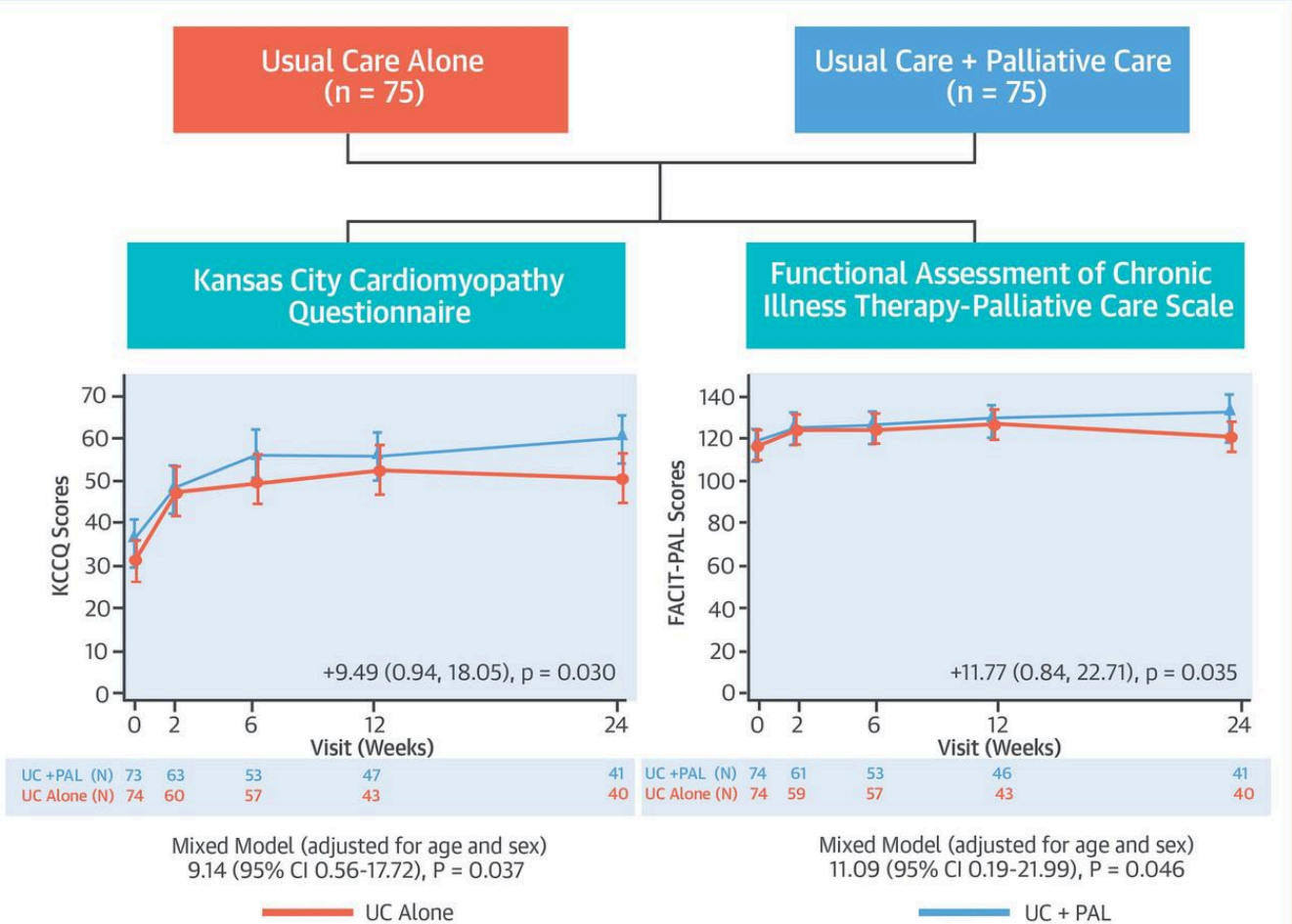
Population: 150 advanced HF patients

Intervention: 6 months of PC plus usual care v usual care alone.

Outcomes:

1. Improved HF related QOL (KCCQ).
2. Improved overall all health related QOL.
3. Improvements in depression and spiritual well being.
4. No change in hospitalizations or change in mortality.

## CENTRAL ILLUSTRATION: The PAL-HF Study Randomized 150 Patients With Advanced Heart Failure to Usual Care or Usual Care + a Multidimensional Palliative Care Intervention



Rogers, J.G. et al. *J Am Coll Cardiol.* 2017;70(3):331-41.

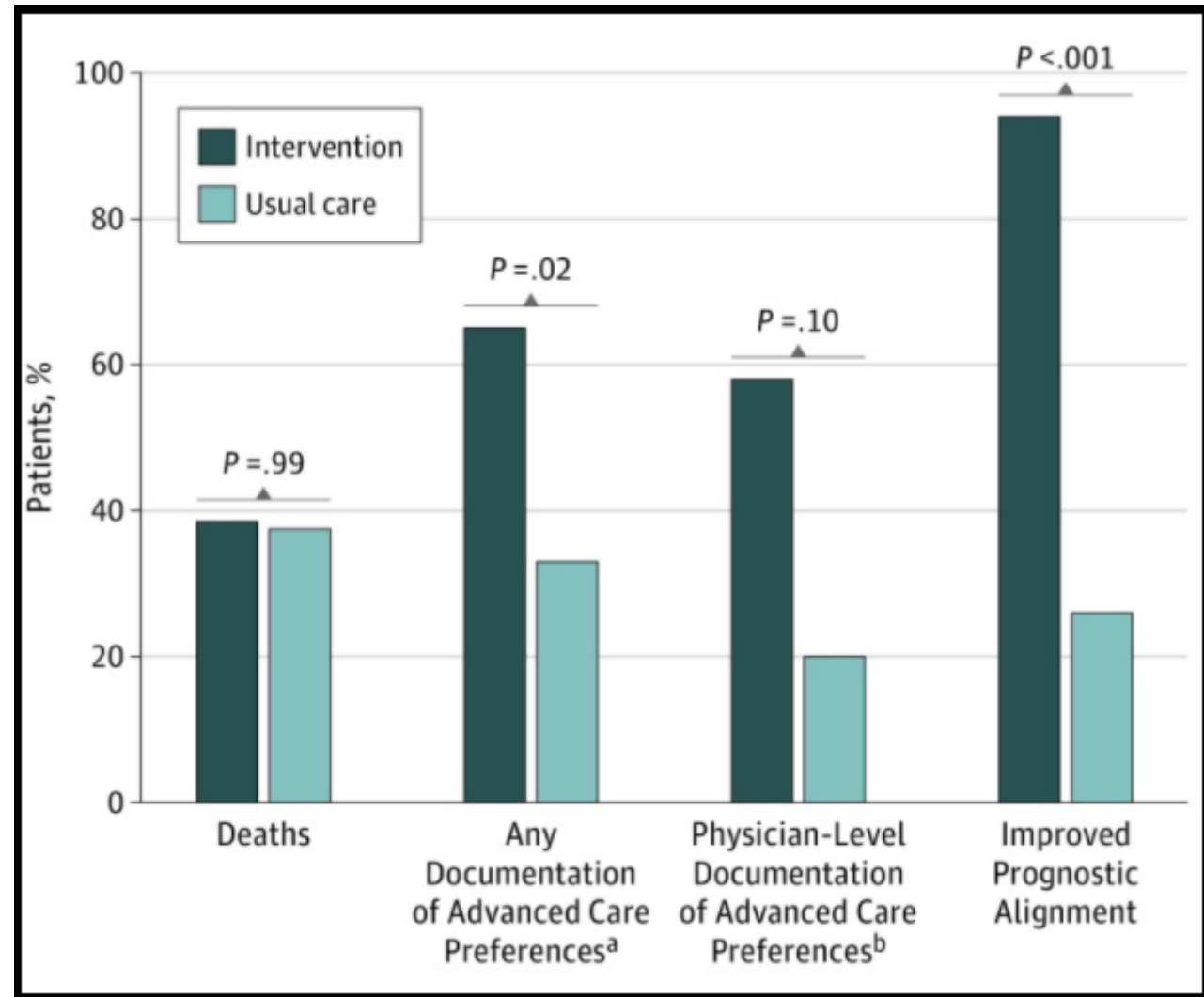
Rogers, JG, et al. *Palliative Care in Heart Failure: The PAL-HF Randomized, Controlled Clinical Trial, JACC, 2017.*

# Social Worker-Aided Palliative Care Intervention in High-Risk Patients With Heart Failure (SWAP-HF)

**Population:** 50 patients randomized to SW led PC intervention starting in hospital and continued in outpatient setting v. usual care.

**Intervention:** Grounded in goals of care discussion conducted by PC SW.

**Outcome:** More patients in the intervention group had ACP documented by non study staff and among patients who survived 6 months. Improved alignment of patient and physician prognosis.



O'Donnell A, et al. *Social Worker-Aided Palliative Care Intervention in High-risk Patients with Heart Failure (SWAP-HF): A Pilot Randomized Clinical Trial.* JAMA Cardiol, 2018.

# Collaborative Care to Alleviate Symptoms and Adjust to Illness (CASA) Study

- Population: 314 patients with symptomatic HF and reduced health status.
- Intervention: CASA intervention included collaborative symptom care & psychosocial care provided by a nurse and a social worker, both who worked with the PCP, cardiologist and PC physician v. usual care.
- Outcomes: Intervention group had improvements in depression, fatigue and pain management with no changes in HF-related QOL scores.

Bekelman D, et al. *Effect of a Collaborative Care Intervention vs Usual Care on Health Status of Patients with Chronic Heart Failure: The CASA Randomized Clinical Trial*. JAMA Internal Medicine, 2018.

# Key Takeaways

- Heart failure remains a significant cause of morbidity & mortality in the US and the world.
- Challenges exist with management of heavy symptom burden and unpredictable disease trajectory.
- Currently palliative care is used most in the last weeks of life.
- Palliative care can provide improvements in symptom management, quality of life and advanced care planning.
- Integration of palliative care and HF are critical to ensure the best outcomes for this complex population.



**It all starts with a conversation,  
early and whenever there are  
changes.**

**Create the opportunities  
to engage early and open the  
door.**

Quote Attribution: me 😊



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Questions??



CME survey- 1.0 credits