DEFINING THE ROLE OF PALLIATIVE CARE AND END OF LIFE MANAGEMENT IN HF PATIENTS

Robert J. Mentz, MD, FACC, FAHA  
Associate Professor of Medicine  
Director, Duke University Cooperative Cardiovascular Society  
Advanced Heart Failure and Cardiac Transplantation

Carla Pies, DNP, ARNP, ACHPN  
Hospitalist  
Supportive and Palliative Care

Erika Giblin, PharmD  
Cardiology Clinical Pharmacy Specialist  
Vidant Medical Center  
Clinical Assistant Professor  
Campbell University College of Pharmacy and Health Sciences
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The other presenters have nothing to disclose.
WORKSHOP OBJECTIVES

- Define palliative care for the heart failure (HF) population
- Apply palliative care strategies to a patient with HF
WHO DEFINITION

- Palliative Care is an approach that improves the 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, psychosocial and spiritual.
PURPOSE OF PALLIATIVE CARE

- Assist with pain and symptom management
- Reduce suffering and improve QOL
- Foster a sense of personal control
- Discuss prognosis
- Facilitate communication to clarify goals of care
- Define diagnostic and treatment options
- Match medical decisions to goals
- Facilitate advanced care planning
DEFINING PALLIATIVE CARE IN HF

- Prognosis uncertainty and prognostic paralysis
- Triggers for palliative care
- Timing of implementation
- Lack of palliative-care focused training
- Outpatient vs. Inpatient resources vs. Embedded clinics
BARRIERS TO PALLIATIVE CARE

- Palliative care image problem
- Varied patient prognostic awareness
- Presumed knowledge of patients’ wishes
- Palliative care provider shortage
THE NEW ERA OF PALLIATIVE CARE

Hawley, PH. JPSM Journal 2014.
Palliative Care in the Management of Heart Failure: Primary Results of the PAL-HF Trial

JG Rogers, CB Patel, RJ Mentz, BB Granger, KE Steinhauser, M Fiuzat, PA Adams, A Speck, KS Johnson, A Krishnamoorthy, H Yang, KJ Anstrom, GC Dodson, DH Taylor, J Kirchner, DB Mark, CM O’Connor, JA Tulsky

ClinicalTrials.gov Identifier: NCT01589601
PAL-HF was funded by the NINR (R01NR013428)
Hypothesis

A multidisciplinary palliative care approach added to usual care will improve health-related outcomes relative to usual care alone in patients with advanced heart failure at high risk for re-hospitalization or death in 6 months.
Methods

- Prospective, single-center, randomized, controlled clinical trial in patients (n=200) at high risk of 6-month re-hospitalization or death comparing:
  - GDMT vs. GDMT + multidisciplinary palliative intervention

- Co-primary endpoint
  - KCCQ overall summary score
  - FACIT-PAL

- Secondary endpoints
  - FACIT - Spiritual Well-Being
  - HADS – Depression and anxiety
  - Composite: death, hospitalization, QoL
  - Resource utilization
Eligibility

**Inclusion**
- ✓ Age > 18 yrs
- ✓ Dyspnea at rest or minimal exertion + at least one sign of volume overload
- ✓ Current or recent (< 2 weeks) HF hospitalization
- ✓ HFpEF or HFrEF
- ✓ ESCAPE score ≥ 4 (50% 6-month mortality)
- ✓ Alternative inclusion criteria
  - Chronic inotropic support
  - ≥ 3 heart failure hospitalizations in 12 months
  - No prior hospitalization but ESCAPE > 4

**Exclusion**
- ✗ Anticipated VAD or transplant
- ✗ ACS in past month
- ✗ CRT in past 3 months
- ✗ Active myocarditis
- ✗ AS amenable to treatment
- ✗ Renal failure
- ✗ Non-cardiac life-threatening illness

Am Heart J 2014;168:645-51
Intervention

- Interdisciplinary intervention to complement GDMT
- NP + Palliative Care MD
  - Symptoms: dyspnea, fatigue, insomnia, pain, GI distress
  - Psychosocial and spiritual concerns
  - End-of-life preparation
  - Goals of care
- Ongoing evaluation and management in outpatient setting
# Baseline Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>UC+PAL (N=75)</th>
<th>UC Alone (N=75)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years</td>
<td>71.9</td>
<td>69.8</td>
</tr>
<tr>
<td>Female (%)</td>
<td>44.0</td>
<td>50.7</td>
</tr>
<tr>
<td>African American (%)</td>
<td>48.0</td>
<td>34.7</td>
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<tr>
<td>Medical history (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAD</td>
<td>50.7</td>
<td>62.7</td>
</tr>
<tr>
<td>Stroke</td>
<td>24.0</td>
<td>13.3</td>
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<tr>
<td>Hypertension</td>
<td>81.3</td>
<td>69.3</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>56.0</td>
<td>50.7</td>
</tr>
<tr>
<td>Depression</td>
<td>16.0</td>
<td>17.3</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>UC+PAL (N=75)</th>
<th>UC Alone (N=75)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HF duration, months</td>
<td>64.7</td>
<td>69.1</td>
</tr>
<tr>
<td>NYHA class III/IV (%)</td>
<td>72.0 / 20.0</td>
<td>77.3 / 6.7</td>
</tr>
<tr>
<td>Time spent in bed/couch/chair in past month:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than half (%)</td>
<td>21.3</td>
<td>26.7</td>
</tr>
<tr>
<td>Almost all (%)</td>
<td>33.3</td>
<td>38.7</td>
</tr>
<tr>
<td>NT-proBNP, pg/mL</td>
<td>10040</td>
<td>13212</td>
</tr>
<tr>
<td>Creatinine, mg/dL</td>
<td>1.8</td>
<td>1.9</td>
</tr>
</tbody>
</table>
## Baseline Characteristics

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<tr>
<th>Characteristic</th>
<th>UC+PAL (N=75)</th>
<th>UC Alone (N=75)</th>
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</thead>
<tbody>
<tr>
<td><strong>Baseline Medications</strong></td>
<td></td>
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</tr>
<tr>
<td>ACEi/ARB</td>
<td>36.0</td>
<td>37.4</td>
</tr>
<tr>
<td>Beta Blocker</td>
<td>68.0</td>
<td>65.3</td>
</tr>
<tr>
<td>MRA</td>
<td>53.0</td>
<td>40.0</td>
</tr>
<tr>
<td>ASA</td>
<td>72.0</td>
<td>66.7</td>
</tr>
<tr>
<td>Statin</td>
<td>52.0</td>
<td>57.3</td>
</tr>
<tr>
<td><strong>Ejection Fraction</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 25%</td>
<td>30.7</td>
<td>37.3</td>
</tr>
<tr>
<td>25-40%</td>
<td>22.7</td>
<td>18.7</td>
</tr>
<tr>
<td>40-55%</td>
<td>18.7</td>
<td>25.3</td>
</tr>
<tr>
<td>&gt;55%</td>
<td>28.0</td>
<td>18.7</td>
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</tbody>
</table>
Impact of Palliative Care on Quality of Life

KCCQ

Mixed model (adjusted for age and sex) (95% CI) = 9.14 (0.56, 17.72), P=0.037

FACIT-PAL

Mixed model (adjusted for age and sex) (95% CI) = 11.09 (0.19, 21.99), P=0.046

+9.49 (0.94, 18.05), P=0.030

+11.77 (0.84, 22.71), P=0.035
Spirituality, Depression, and Anxiety

**FACIT-SP**
- UC + PAL
- UC Alone

**HADS-Depression**
- UC Alone
- UC + PAL

**HADS-Anxiety**
- UC Alone
- UC + PAL

P-value = 0.027

P-value = 0.020

P-value = 0.048
Limitations

- Small, single-center trial
- Intervention replicability
- Intervention was adopted in program that has integrated many palliative care principles
Summary

- PAL-HF is the first randomized, controlled clinical trial to test a longitudinal palliative care intervention in a heart failure population.

- As expected, enrolled patients had a high degree of symptom burden and mortality.

- PAL-HF achieved the primary endpoint of improving quality of life measured by two disease-specific tools.

- As expected, the PAL-HF intervention did not reduce mortality relative to usual heart failure care.
Conclusions

- PAL-HF demonstrated improvements in patient-centric quality of life measures in a cohort of patients with high symptom burden and mortality.
- The PAL-HF data should be used as pilot information to inform a larger, multicenter clinical trial.
PATIENT CASE – CM

- 63 yo AA male
- PMH: HFrEF (LVEF 15%), VT, HTN, HLD, T2DM, Gout, Anxiety
- SH: Married with two children; denies smoking, EtOH, illicit drugs
- FH: unremarkable

**Current Medications:**
- Furosemide 40mg PO BID
- Metoprolol succinate 150mg PO daily
- Sacubitril/valsartan 49/51mg PO BID
- Spironolactone 25mg PO daily
- Metformin 1000mg PO BID
- Rosuvastatin 10mg PO daily
CM – DISEASE TIMELINE

2014
HFrEF Diagnosis (NYHA Class I-II)

2016
Developed VT, worsening HFrEF (NYHA Class III)

2018
Listed for Heart Tx

2019
LVAD Implant
GROUP ACTIVITY – 10 MINS

Directions: Break Into FOUR Tables

Table 1 – Diagnosis
Table 2 – Chronic Management
Table 3 – End-of-life
Table 4 – Advanced Therapies (i.e., LVAD or heart transplant)

Formulate a plan for CM based on your disease stage

Questions to Consider:
• What medications should be started? Stopped?
• Is palliative care appropriate? What does a palliative care plan look like at this stage?
• Who should be involved in the patient’s care?
• What goals should be established?
TABLE 1 - DIAGNOSIS

- What did you decide is most important at this stage?
- Who comprises your HF Team?
- Did you consider palliative care?

**Focus:** Establish treatment goals and initiate GDMT

- Initiate appropriate GDMT
  - Consider need for medications outside GDMT (i.e., anxiolytics, bowel regimen)
- Determine who is involved in the patient’s care
- Form an interdisciplinary team
- Palliative care approach should start at diagnosis
### TABLE 2 – CHRONIC MANAGEMENT

- What team members are most important at this stage?
- Did you consider palliative care?

<table>
<thead>
<tr>
<th>Focus: Reach target dosing and predict need for advanced therapies</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Reach maximum tolerating doses of GDMT</td>
</tr>
<tr>
<td>✓ Keep caregivers updated and involved</td>
</tr>
<tr>
<td>✓ Build a network for the patient’s comorbidities</td>
</tr>
<tr>
<td>✓ Reiterate palliative care approaches (esp. symptom control)</td>
</tr>
</tbody>
</table>

How did you define EOL?

What medication changes did you make?

How did you separate palliative care and EOL?

Focus: De-escalate medications and relieve symptoms

✓ Palliative care should be congruent with EOL care

✓ Decrease GDMT, increase diuretics
  • Start digoxin for dyspnea, lorazepam for anxiety, senna for constipation, etc.

✓ Be realistic with patient and caregiver(s)
  • Prepare for caregiver bereavement
TABLE 4 – ADVANCED THERAPIES

- How does this change your treatment strategy?
- What are your new goals?
- Are there new team members to include?

**Focus:** reorganize treatment strategies and individualize care

- Establish new goals
- Continue managing symptoms
- Expand interdisciplinary collaboration
- Involve the caregiver
RETURNING TO THE MODEL...
A TEAM APPROACH

- Nursing Team
- Allied Care
  - Case manager
  - Chaplain
  - Dietician
- HF Specialist
- Pharmacist
- Palliative Care Team
- Psychologist