QA activity: Palliative pathway for HARP CHF patients-is there an unmet need?

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The HARP Complex Care Service operates as a collaboration between cohealth, Merri Health, Royal District Nursing Service and The Royal Melbourne Hospital.
Background

• Chronic heart failure (HF) has an annual mortality of 19% (Heart Foundation, 2016).

• Incurable and life limiting disease, increasing recognition of the need for high quality palliative care (Sandesh, et al. 2016).

• Recent studies (US) identified a disparity:
  – ½ HF patients reported preference for home terminal care
  – However, only 25% of US adults 65 years or older diagnosed with HF die in their homes (Sandesh, et al, 2017).

• There is growing emphasis on the need for high quality patient centred palliative care for patients with heart failure

• One of the challenges- how do we identify these patients?

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Rationale and Aims

• To explore EOL care in a HARP HF population

• Aims:
  1. Whether a validated tool predicted mortality in this group (REF)
  2. HARP service documentation of End of Life (EOL) wishes
  3. HARP referral to palliative care
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Additional Patient Variables assessed

• Live alone? – Y or N
• Documentation of EOL discussion and wishes
• Referral to palliative care? – Y or N
• Albumin
• eGFR
• In deceased patients, place of death – location and consistency with wish if expressed
What is HARP?

- HARP = Hospital Admission Risk Program.
  - Provides care in the community for patients identified to be at high risk for readmission by disease focused teams e.g. HF, COPD etc

- This program is:
  - State funded
  - Offers individual HF Nurse Specialist follow-up at home
  - Provides Cardiologist assessment in a community setting
  - Offers Centre and home based exercise program options
  - Ongoing liaison between hospital, specialist, GP & other allied health professionals with regard to patient management

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Can we predict survival in HF?

• Predicting survival in heart failure: a risk score. Based on 39,372 patients from 30 studies (EHJ, Pocock et al 2013)
  • Meta-analysis – patients with both HFrEF and HFpEF
  • Allows calculation of risk using a model accessible on the website www.heartfailurerisk.org (calculates an Integer score, ranging from 0-50)

• Supported by the Heart Foundation
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Methodology

- Consecutive population of patients (n=163, Jan 2014-July 2015) accepted into HARP following a CHF admission
- Ascertained:
  1. Score of a validated mortality risk stratification tool (Meta-Analysis Global Group (MAGGIC) Integer Score was calculated (Pocock, et al 2013))
  2. Collected additional clinical patient variables
  3. Documented whether EOL discussion was undertaken and wishes documented
  4. Collected data on referral to palliative care
Data collection

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### Descriptive statistics for baseline variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Alive (n= 75)</th>
<th>Died (n= 19)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integer score, median (IQR)</td>
<td>29</td>
<td>32</td>
</tr>
<tr>
<td>Age (median, IQR)</td>
<td>80</td>
<td>83</td>
</tr>
<tr>
<td>Gender, F: M %</td>
<td>42:33</td>
<td>11:8</td>
</tr>
<tr>
<td>Lives alone, n (%)</td>
<td>23</td>
<td>6</td>
</tr>
<tr>
<td>Body Mass Index (kg/m²) (median, IQR)</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td>Current smoker, %</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>HFpEF %</td>
<td>33</td>
<td>8</td>
</tr>
<tr>
<td>HFrEF %</td>
<td>42</td>
<td>11</td>
</tr>
<tr>
<td>Ejection fraction % (median, IQR)</td>
<td>50%</td>
<td>45%</td>
</tr>
<tr>
<td>NYHA Class I, n (%)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>NYHA Class II, n (%)</td>
<td>32</td>
<td>8</td>
</tr>
<tr>
<td>NYHA Class III, n (%)</td>
<td>40</td>
<td>8</td>
</tr>
<tr>
<td>NYHA Class IV, n (%)</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Creatinine, (median, IQR)</td>
<td>115</td>
<td>169</td>
</tr>
<tr>
<td>EGFR (median, IQR)</td>
<td>47</td>
<td>27</td>
</tr>
<tr>
<td>Albumin (median, IQR)</td>
<td>31</td>
<td>33</td>
</tr>
<tr>
<td>Diabetes, n (%)</td>
<td>42</td>
<td>11</td>
</tr>
<tr>
<td>COPD, n (%)</td>
<td>24</td>
<td>10</td>
</tr>
<tr>
<td>Hypertension, n (%)</td>
<td>50</td>
<td>11</td>
</tr>
<tr>
<td>Beta Blocker, %</td>
<td>54</td>
<td>13</td>
</tr>
<tr>
<td>ACE / ARB’s, %</td>
<td>59</td>
<td>11</td>
</tr>
</tbody>
</table>
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Of those recruited patients:

The MAGGIC tool and specific patient variables are used to explore whether they may assist our patients to:

- Initiate discussion re EOL wishes and preferred place of death
- Identify those who would benefit from referral to a palliative care pathway and
- When, in their CHF trajectory, to refer to palliative care
Deceased patients

<table>
<thead>
<tr>
<th></th>
<th>Palliative care referral</th>
<th>Not referred to Palliative Care</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N = 9</td>
<td>N = 10</td>
</tr>
<tr>
<td>Type of HF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HFrEF</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>HFpEF</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Place of Death</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Home</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Hospice</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Not documented</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>End of Life wishes discussed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>No</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Not documented</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Advance Care Plan present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Not documented</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

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CONCLUSION

Within the deceased cohort:

- older
- Higher number of males
- Slightly higher number of those with diabetes & COPD
- Creatinine was higher
- eGFR slightly lower in the deceased cohort
- Slightly higher number of patients that live alone in the deceased group

Other observations:

- BMI appeared insignificant between the groups
- NYHA symptoms of class II-III in both cohorts
- 72% of patients had a BB prescribed
- No significant difference in Albumin levels between the 2 cohorts
- Poor documentation of both EOL wishes & ACP

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Implications for Practice

Current evidence regarding preferences of patients with HF suggest substantial opportunities for improvement of EOL HF care (Sandesh et al. 2016).

- Use of a validated clinical prediction tool integrated with individual data to improve understanding of a person’s illness trajectory
- Initiate discussions with hospital and community palliative care service to develop a referral pathway for these patients
- Improve documentation of EOL wishes.
- Expand the scope of HF nursing care to include EOL care
- Expand scope of hospice and palliative care providers in the EOL care of patients with HF particularly around symptom management
Limitations

- There is a further 41 patients to collate data & obtain Integer score
- This study does not identify / discuss the unique challenge of palliative care for HF which includes the management of implantable devices
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