HOW DOES THE RACE (RAPID ASSESSMENT OF CRITICAL EVENTS) TEAM AFFECT END OF LIFE (EOL) CARE AT THE HAMILTON GENERAL HOSPITAL?

Tam, Benjamin1; Salib, Mary1; Plaunt, Michael2; Fox-Robichaud, Alison2
1McMaster University, Medicine, Hamilton, Canada; 2McMaster University, Critical Care, Hamilton, Canada

Introduction: Hospitalized patients are often critically ill and at the end of their life. Care at this time must balance patient goals, treatment benefits and burdens. The Rapid Assessment of Critical Events (RACE) team is often involved in life preserving treatments for critically ill patients. There is a subset of critically ill patients who do not want, or who would not benefit from such aggressive restorative therapies but whose goals have not been established. At this point, the RACE team has the opportunity to initiate End of Life (EOL) discussions and improve the dying process. To support in-hospital EOL care, the Hamilton Health Sciences recently introduced the Physician Ordered Scope of Treatment for End of Life Care (POST) form to help guide the EOL discussion. The POST documents the wishes, values, and goals of the patient in an EOL setting.

Objectives: The primary objective of this study was to determine the effect of the Rapid Assessment of Critical Events (RACE) team on End of Life (EOL) care at the Hamilton General Hospital. The secondary objective was to evaluate the impact of the Physician Ordered Scope of Treatment for End of Life care (POST) form on EOL care.

Methods: This single-center, retrospective chart review was conducted at the Hamilton General Hospital. Charts of patients seen by the RACE team between January 1, 2009 and December 31, 2010 were reviewed. Charts were included if a RACE team member was involved in EOL discussions and excluded if the code status discussion was deemed inappropriate. Two reviewers evaluated the charts independently. The primary author conducted the analysis. Discrete variables were described as proportions and compared with chi-square tests. Continuous variables were reported as means with standard deviations and compared with unpaired t-tests. A p value of <0.05 was considered significant.

Results: RACE became involved in EOL discussions in 410/5316 (7.7%) cases. 27% of these patients had a change in EOL status thereafter. In patients whose EOL status changed following RACE discussion, there were fewer transfers to the ICU 8.4% vs 17% (p<0.001), decreased ICU length of stay 5.8 days vs 20 days (p=0.08), increased palliative care consults 34% vs 5.3% (p<0.001), and increased proportion who passed within 24 hrs of consult 25% vs 8.3% (p<0.001). The Hamilton General Hospital implemented the POST form part way through the study period. We found that there was an increased proportion of patients who had a change in EOL status following POST implementation, 31% vs 20% (p<0.05). However, there was no difference in ICU transfers, ICU length of stay, palliative care involvement, or proportion who passed within 24 hours of consult.

References: Not Applicable
Table 1: Clinical course of patients with or without change in EOL status following RACE team discussion

<table>
<thead>
<tr>
<th></th>
<th>Change in EOL status following RACE team discussion (n=83)</th>
<th>No change in EOL status following RACE team discussion (n=232)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years, std)</td>
<td>75 ±11</td>
<td>73 ±13</td>
<td>0.10</td>
</tr>
<tr>
<td>% Male</td>
<td>65% (54/83)</td>
<td>56% (129/232)</td>
<td>0.38</td>
</tr>
<tr>
<td>% Full code at time of consult</td>
<td>100% (83/83)</td>
<td>83% (193/232)</td>
<td>0.21</td>
</tr>
<tr>
<td>% with completed POST</td>
<td>23% (19/83)</td>
<td>11% (26/232)</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>% transferred to ICU</td>
<td>8.4% (7/83)</td>
<td>16% (38/232)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Average ICU LOS if transferred (days, std)</td>
<td>5.8 ±4.7</td>
<td>20 ±14</td>
<td>0.08</td>
</tr>
<tr>
<td>% with palliative care involvement</td>
<td>34% (28/83)</td>
<td>5.3% (12/232)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>% who passed within 24 hours of RACE consult</td>
<td>25% (21/83)</td>
<td>8.2% (19/232)</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>
Table 2: Clinical course of patients with RACE team EOL discussion pre-POST and post-POST

<table>
<thead>
<tr>
<th></th>
<th>Pre-POST implementation (n=140)</th>
<th>Post-POST implementation (n=175)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years, std)</td>
<td>75 ±12</td>
<td>73 ±13</td>
<td>0.54</td>
</tr>
<tr>
<td>% Male</td>
<td>58% (81/140)</td>
<td>58% (102/175)</td>
<td>0.91</td>
</tr>
<tr>
<td>% Full code at time of consult</td>
<td>89% (125/140)</td>
<td>85% (149/175)</td>
<td>0.72</td>
</tr>
<tr>
<td>% with completed POST</td>
<td>1.4% (2/140)</td>
<td>25% (43/175)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>% with change in code status following consult</td>
<td>20% (28/140)</td>
<td>31% (55/175)</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>% transferred to ICU</td>
<td>13% (18/140)</td>
<td>15% (27/175)</td>
<td>0.55</td>
</tr>
<tr>
<td>Average ICU LOS if transferred (days, std)</td>
<td>12 ±16</td>
<td>14 ±44</td>
<td>0.38</td>
</tr>
<tr>
<td>% with palliative care involvement</td>
<td>14% (19/140)</td>
<td>12% (21/175)</td>
<td>0.55</td>
</tr>
<tr>
<td>% who passed within 24 hours of RACE consult</td>
<td>8.6% (12/140)</td>
<td>16% (28/175)</td>
<td>0.08</td>
</tr>
</tbody>
</table>