### Background
The UCLA Department of Medicine (DOM) Rapid Mortality Review (RMR) is an innovative in-person, near real-time review of all deaths to capture the unique insight of the care providers into aspects of end-of-life care quality that otherwise go undocumented and unreported.

### Purpose
Examine characteristics of mortality cases (n=498) that are more likely to have advance care planning (ACP) issues identified during RMR between October 2012 to May 2016.

### Methods
- Primary analysis of a mortality database with SPSS software, version 23.
- Descriptive statistics completed for frequency and crosstabs of each variables.
- Pearson Chi-Square test performed for statistical significance (p<0.05) between cases with ACP issues.
- A binary logistic regression with “Enter” method to analyze the characteristics of mortality that were statistically significant for ACP issues.

### Results
- **Primary Cause of Death**
  - Chronic Medical Condition 20%
  - Infection 10%
  - Other 5%
  - Acute Medical Complication 10%

- **Secondary Cause of Death**
  - Chronic Medical Condition 20%
  - Infection 10%
  - Other 5%
  - Acute Medical Complication 10%

### Characteristics of Mortality that are Statistically Significant for Advance Care Planning Issues

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Odds Ratio</th>
<th>95% CI Lower</th>
<th>95% CI Upper</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.099</td>
<td>0.993</td>
<td>1.259</td>
<td>0.279</td>
</tr>
<tr>
<td>Gender</td>
<td>1.031</td>
<td>1.001</td>
<td>1.057</td>
<td>0.248</td>
</tr>
<tr>
<td>Length of Stay (LOS)</td>
<td>1.014</td>
<td>1.005</td>
<td>1.023</td>
<td>0.006</td>
</tr>
<tr>
<td>UCLA PCP Patient</td>
<td>1.589</td>
<td>0.957</td>
<td>2.635</td>
<td>0.073</td>
</tr>
<tr>
<td>GOC at Outpatient</td>
<td>1.593</td>
<td>0.843</td>
<td>3.101</td>
<td>0.152</td>
</tr>
<tr>
<td>Expected at Time of Death</td>
<td>2.204</td>
<td>0.906</td>
<td>5.266</td>
<td>0.051</td>
</tr>
<tr>
<td>DNR/DNI at Admission</td>
<td>1.195</td>
<td>0.670</td>
<td>2.108</td>
<td>0.538</td>
</tr>
<tr>
<td>DNR/DNI at Death</td>
<td>1.62</td>
<td>0.659</td>
<td>3.891</td>
<td>0.293</td>
</tr>
<tr>
<td>Palliative Care</td>
<td>1.291</td>
<td>1.136</td>
<td>1.507</td>
<td>0.076</td>
</tr>
<tr>
<td>Preventability of Death</td>
<td>1.609</td>
<td>1.143</td>
<td>2.287</td>
<td>0.004</td>
</tr>
</tbody>
</table>

### Discussion
- The results of logistic regression examined characteristics of mortality cases that are more likely to have ACP issues.
- Strong associations were seen for female gender (OR: 1.601; 95% CI: 1.011-2.536; p=.045), longer length of stay (OR: 1.014; 95% CI: 1.003-1.025; p=.016) and primary reason for mortality infection (OR: 2.02; 95% CI: 1.144-3.567; p=.015) or acute medical (p=.04).
- All other variables were not significantly associated with ACP issues, including: older age, transfer patient, preventability, UCLA patient with primary care physician, goals of care discussion in the outpatient setting, DNR/DNI at admission and time of death, and palliative care consult.

### Conclusion
- The findings of this primary data analysis demonstrate some characteristics of mortality cases that will more likely have ACP issues.
- Further study could investigate the etiology of the gender association, whether improved ACP reduces lengths of stay, and the potential benefit of more universal ACP.

### Contact
Anna Dermenchyan, BSN, RN, CCRN-K
Senior Clinical Quality Specialist and PhD Student
adermenchyan@mednet.ucla.edu