Resident Handover
A Need for Structured Curriculum and Quality Outcome Studies

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Handover

- Resident Work Hours
- Joint Commission
- Medical errors from communication
- See one, do one, teach one?
- Number of studies: effectiveness/utility of structured handover curriculum
- Studies are lacking in direct correlation with patient outcome measures

Disclosure

- “The persons involved in the planning/content development of this submission do not have any financial relationships with pharmaceutical companies, biomedical device manufacturers or distributors, or others whose products or services may be considered related to the subject matter of the educational activity.”

Our Study

Survey Tool

- Attending physicians were trained prior to participation
- Evaluation Tools were utilized over a 3 month period
- SAFETIPS was implemented to Interns
- Evaluation Tools were utilized over a 3 month period
Methods

- 54 survey tools were completed:
  - 13 Pre Faculty Evaluations
  - 16 Pre Intern Evaluations
  - 13 Post Faculty Evaluations
  - 12 Post Intern Evaluations
- Matched changes in the Likert scale and time to signout per patient were analyzed
- Objective, patient outcome measures

Objective Patient Outcome Data

Results

Table 1: Matched Scores

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean (Matched Change)</th>
<th>Std Dev</th>
<th>Upper 95%</th>
<th>Lower 95%</th>
<th>N</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.45</td>
<td>1.97</td>
<td>2.78</td>
<td>0.13</td>
<td>31</td>
<td>0.03</td>
</tr>
<tr>
<td>2</td>
<td>1.91</td>
<td>1.76</td>
<td>2.90</td>
<td>0.73</td>
<td>31</td>
<td>0.005</td>
</tr>
<tr>
<td>3</td>
<td>3.55</td>
<td>2.16</td>
<td>2.99</td>
<td>0.09</td>
<td>31</td>
<td>0.04</td>
</tr>
<tr>
<td>4</td>
<td>1.55</td>
<td>1.97</td>
<td>2.87</td>
<td>0.22</td>
<td>31</td>
<td>0.03</td>
</tr>
<tr>
<td>5</td>
<td>1.22</td>
<td>1.48</td>
<td>2.36</td>
<td>0.08</td>
<td>9</td>
<td>0.04</td>
</tr>
</tbody>
</table>

Minutes per Patient: -0.11 (0.9 seconds)
Organization/Efficiency: 0.45

Table 3: Resident Comments

<table>
<thead>
<tr>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 &quot;more complete&quot;</td>
<td>1 &quot;tanger because we are not used to the format&quot;</td>
</tr>
<tr>
<td>2 &quot;more concise&quot;</td>
<td>1 &quot;does not work well for great team&quot;</td>
</tr>
<tr>
<td>2 &quot;more accurate&quot;</td>
<td>1 &quot;not useful for green team&quot;</td>
</tr>
<tr>
<td>1 &quot;put appropriate&quot;</td>
<td>1 &quot;more summarized&quot;</td>
</tr>
</tbody>
</table>

12 total N = 3 total

Closing Thoughts

- Optimal handover curriculum?
  - Formal didactic and interactive training of handover
  - Face to face uninterrupted communication combining verbal and electronic handover
  - Unambiguous and factually correct data
- Statistically significant improvement in all of the following areas
  - Efficient organization of information
  - Clear communication skills
  - Appropriate and adequate informational content
  - Accurate clinical acumen
  - Professional and humanistic qualities
- Residents feel that utilizing a standardized handover system is more complete, concise and accurate
Where do we go...

- More patient handovers = increasing opportunity for errors
- Continual teaching and review of the standardized handover system is essential
- Accurate, objective patient outcome measures should be considered for the subject of further study
  - PMET/SERS data?
- The benefits of a standardized tool for oral handover have been demonstrated and should be applied to further improve written handover and decrease medical errors

References