Implementation of a Standardized Handoff During Transition of Care from the Emergency Department to the Intensive Care Unit

Melinda M. Abbring BSN, RN
Valparaiso University DNP Student

Significance of the Problem

- To Err is Human: Building a Safer Health System (IOM, 1999) and Crossing the Quality Chasm (IOM, 2001) highlighting ED handoffs as a safety measure during transition of care (Institute of Medicine, 1999 & 2001).
- Handoffs were again recognized as a safety issue with the National Patient Safety Goal 2E (Joint Commission, 2006).
- 45% of nurses agreed “problems often occur in the exchange of information across units” (Culture of Patient Survey, 2015).

PICOT Question

- What is the effect of implementing a standardized handoff between ED and ICU nurses when compared to the current handoff, regarding nursing communication and patient safety over an eight week period?

Review of the Literature

Search Terms: Handoff, hand off, handover, inpatient transfer, emergency department, emergency room, inpatient, and patient safety.

- Exclusive Criteria: Bedside reports, shift reports, and handoffs involving healthcare provider other than registered nurses.

Implementation

Settings: 22 bed ED and 20 bed ICU in a Midwestern hospital
Participants: 62 nurses, ED (n=23) and ICU (n=39)
Theoretical Framework: Rogers’ Diffusion of Innovation
Evidenced-Based Practice Model: Stetler model

Practice Change:
- Phase I: Collect data on type of medical information given/received during ED to ICU patient transfer, strengths and weaknesses of practice, and length of transfer times
- Phase II: Develop protocol for a standardized handoff
- Phase III: Education of ED and ICU nurses on standardized handoff protocol, placement of reminder placards on both units
- Phase IV: Provide weekly responses on compliance to ED and ICU RNs in regard to execution of standardized handoff

Time: Two months

Measure of Outcomes:

- Post-Implementation of Standardized Handoff Questionnaire
- Six questions related to specific steps of standardized handoff.
- Five point Likert scale (1=Never to 5=Always).

Patient Transfer Times from ED to ICU:
- Patient transfer times decreased significantly from pre (M = 82.85 minutes) to post (M = 75.47 minutes) intervention (t = 1.974, df = 283, p = 0.049).

Evaluation

Demographic Characteristics:
- Gender: Males 19.6% and Females 80.6%.
- Race: African American 4.8%, Asian 3.2%, Caucasian 83.9%, Hispanic 6.5%, and Other 1.6%.

Recommendations

- All nurses will be educated about handoff as a safety measure, including IOM and Joint Commission recommendations.
- Standardized handoff will be implemented using patient specific tool during transition of care for all patients hospital-wide.
- All nurses will be educated on specific steps of this intervention.
- Nursing feedback will be collected and analyzed regarding handoff.
- Protocol will be introduced at other hospitals for ED to ICU handoff.

Outcomes

Nursing Communication

- Post-implementation of Standardized Handoff Questionnaire:
  - Nurses reported compliance with steps of standardized handoff.
  - (3=Sometimes, 4=Almost Always, and 5=Always.)

<table>
<thead>
<tr>
<th>Standardized Handoff</th>
<th>Mean (M)</th>
<th>Standard Deviation (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tool Used</td>
<td>3.87</td>
<td>0.76464</td>
</tr>
<tr>
<td>2. Interruptions Minimized</td>
<td>3.36</td>
<td>0.76401</td>
</tr>
<tr>
<td>3. Questions Asked</td>
<td>3.81</td>
<td>0.77978</td>
</tr>
<tr>
<td>4. Anticipatory Guidance</td>
<td>4.13</td>
<td>0.64663</td>
</tr>
<tr>
<td>5. Timing of Transfer</td>
<td>3.49</td>
<td>0.77662</td>
</tr>
<tr>
<td>6. Ancillary Staff Notified</td>
<td>4.26</td>
<td>0.70612</td>
</tr>
</tbody>
</table>

Conclusions

Implementation of a standardized handoff during transition of care is a successful method for:
- Improving nursing communication.
- Decreasing nurses who report things “falling through the cracks” when transferring patients from ED to ICU and problems occurring in the exchange of information from ED to ICU.
- Significantly decreasing patient transfer times from ED to ICU.