A Healthy Work Environment Endeavor
Postoperative Handover from the OR to CTICU

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Learner Objectives

• List the essential ingredients of the Healthy Work Environment Standards and how they relate to the postoperative handover process.

• Identify how a structured tool and process enhances communication, collaboration and decision-making among health care providers during the postoperative handover.
“There are essential & non-negotiable elements found in every healthy work environment no matter what, when, where and why.”

Dave Hanson
RN, MSN, CNS, CCRN
AACN Standards for Establishing and Sustaining Healthy Work Environments

- **Authentic Leadership** - Leaders must fully embrace the imperative of a healthy work environment, authentically live it and engage others in its achievement.

- **Meaningful Recognition** – Nurses must be recognized and must recognize others for the value each brings to the work of the organization.

- **Appropriate Staffing** - Staffing must ensure the effective match between patient needs and nurse competencies.
AACN Standards for Establishing and Sustaining Healthy Work Environments

• **Skilled Communication** – Nurses must be as proficient in communication skills as they are in clinical skills.

• **True Collaboration** – Nurses must be relentless in pursuing and fostering collaboration.

• **Effective Decision Making** – Nurses must be valued and committed partners in making policy, directing and evaluating clinical care and leading organizational operations.
Purpose

To share an evidence-based practice project showing how skilled communication, true collaboration and effective decision making in the postoperative handover is an essential ingredient to a healthy work environment.

Developed an evidence-based tool and guideline for standardizing the postoperative handover process for patients being admitted directly from the Operating Room (OR) to the Cardiothoracic Intensive Care Unit (CTICU).
Clinical Issue

• The transfer of patient information between health care providers is a risk factor for adverse events.

• Communication failures frequently occur during the operative procedure.

• Delay in communicating critical patient information can lead to deterioration in a patient’s clinical status.
Evidence

• Ineffective communication between nurses and physicians is the single factor most significantly associated with increased hospital mortality.

• During the transitions of care, inadequate communication is implicated in nearly 70% of all errors and adverse events.

• Joint Commission requires health care organizations to implement standardized handover protocols and facilitate communication between providers.
Prospective Interventional Study

Would the implementation of a new OR-to-ICU protocol improve provider satisfaction, increase information sharing, and decrease the number of technical defects?

Results

<table>
<thead>
<tr>
<th></th>
<th>Pre</th>
<th>Post</th>
<th>P- Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence of all Team Members</td>
<td>0%</td>
<td>68%</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td>Parallel conversations</td>
<td>11.3</td>
<td>3.5</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td>Missed info in the surgery report</td>
<td>26%</td>
<td>16%</td>
<td>p=0.03</td>
</tr>
<tr>
<td>Number of questions from ICU team</td>
<td>0.23</td>
<td>0.00</td>
<td>p=0.0397</td>
</tr>
<tr>
<td>Nurse Satisfaction</td>
<td>61%</td>
<td>81%</td>
<td>p=0.269</td>
</tr>
</tbody>
</table>

A standardized handoff protocol can reduce the risk of missed information and improve satisfaction among healthcare providers.

Systematic Review

To present a review of the literature on postoperative patient handovers and to summarize process and communication recommendations based on its findings.

Results

• All interventions improved metrics of effectiveness, efficiency, and perceived teamwork.
• An association between poor-quality handovers and adverse events was also demonstrated.

Recommendations

- Standardize processes
- Complete urgent clinical tasks before the information transfer
- Allow only patient specific discussions during verbal handovers
- Require that all relevant team members be present
- Provide training in team skills and communication

Barriers

- Incomplete transfer of information and other communication issues
- Inconsistent or incomplete teams
- Absent or inefficient execution of clinical tasks
- Poor standardization

Baseline CTICU Handovers

1 Things 'fall between the cracks' when transferring patients from one unit to another
2 Important patient care information is often lost during shift changes
3 Problems often occur in the exchange of information across hospital units
4 Shift changes are problematic for patients in this hospital
Evidence-Based Practice Question

Does implementing a standardized handover protocol and tool from the OR to the CTICU, as compared to current variable practice, improve accuracy, completion, consistency and efficiency of report as well as nurse-physician satisfaction (e.g. communication, collaboration and decision-making)?
Interventions

• An evidence-based guideline to standardize postoperative handover
• Pre education knowledge assessment of unit RNs
• Multi-disciplinary education sessions
  • OR and ICU nurses
  • Leadership
  • Physicians
  • Nurse Practitioners
• Post education knowledge assessment of unit RNs
• Coaching and mentoring
• Evaluation of adherence to the evidence-based practice change
## Demographic Characteristics of the Sample for Pre and Post Survey

**Age**

<table>
<thead>
<tr>
<th>Age</th>
<th>#</th>
<th>%</th>
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<tbody>
<tr>
<td>20-29</td>
<td>22</td>
<td>42%</td>
</tr>
<tr>
<td>30-39</td>
<td>23</td>
<td>44%</td>
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<tr>
<td>40-49</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td>50 or more</td>
<td>3</td>
<td>6%</td>
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**Yrs of nursing experience**

<table>
<thead>
<tr>
<th>Yrs of experience</th>
<th>#</th>
<th>%</th>
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<tbody>
<tr>
<td>≥1</td>
<td>5</td>
<td>10%</td>
</tr>
<tr>
<td>2-5</td>
<td>18</td>
<td>35%</td>
</tr>
<tr>
<td>6-10</td>
<td>20</td>
<td>38%</td>
</tr>
<tr>
<td>11-20</td>
<td>7</td>
<td>13%</td>
</tr>
<tr>
<td>≤20</td>
<td>2</td>
<td>4%</td>
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</table>

**Gender**

<table>
<thead>
<tr>
<th>Gender</th>
<th>#</th>
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</thead>
<tbody>
<tr>
<td>Male</td>
<td>15</td>
<td>29%</td>
</tr>
<tr>
<td>Female</td>
<td>37</td>
<td>71%</td>
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**Job Classification**

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<tbody>
<tr>
<td>CN I</td>
<td>3</td>
<td>6%</td>
</tr>
<tr>
<td>CN II</td>
<td>33</td>
<td>63%</td>
</tr>
<tr>
<td>CN III</td>
<td>11</td>
<td>21%</td>
</tr>
<tr>
<td>AN I/II</td>
<td>5</td>
<td>10%</td>
</tr>
</tbody>
</table>

\[ N = 52 \]
Outcomes Measured

- Pre and Post RN Knowledge Survey
- Satisfaction and Work Environment Survey
  - Accuracy, Completion, Consistency and Efficiency
  - Communication, Collaboration and Decision Making
- Practice Outcomes: Documentation
Results: Percent Correct Score on Pre and Post Knowledge Survey Among Nurses
How often does our current handover process and report meet the following?

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre Ed</th>
<th>Post Ed</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Efficiency</td>
<td></td>
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</tbody>
</table>
Intervention Measurements

• Communication
  • Introduction of team members
  • Anesthesia provider gives report
  • Surgical provider gives report
  • Identification of the plan of care
  • Information about potential problems

• Collaboration
  • Are all members present at the handover timeout report?

• Decision Making
  • Did the team use the structured Handover Report from OR to CTICU to guide communication and ensure accuracy and completeness of information?
Communication

Plan of Care vs. Potential Problems

- Pre
- Post
- Intervention

% of ...
Collaboration

ICU RN  Anesthesia  Surgery  Critical Care

Pre  Post

0%  10%  20%  30%  40%  50%  60%  70%  80%  90%  100%
The team used the Structured Handover Report

- Pre Intervention
- Post Intervention
Comments by Nurses Regarding the Tool

• “I think this tool will greatly improve the handover process for all parties if used consistently and correctly. I think the biggest challenge will be the change of practice and getting people involved to be compliant.”

• “Often times, the anesthesiologists are in a hurry to give report and some information is missed. The new tool will hopefully prevent this miscommunication.”

• “Great idea/tool…definitely need to make changes with handover standards.”
Future Plans

- Work with unit leaders and colleagues to integrate guideline into unit routines through performance improvement processes and include in orientation program.
- Disseminate to other units, and throughout the nursing department in the following forums:
  - Staff Meetings
  - Quality Council
  - Nursing Research Grand Rounds
  - Newsletters *Investigator* Column
  - Annual Research & Evidence Based Practice Conference
- Grant application submitted to Center for Health Quality and Innovation Quality Enterprise Risk Management.
Acknowledgements to Team

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Thank you for your time and attention!
Questions and Comments