Integrated Technology Serves and Informs Clinical Practice: Pressure Ulcer Prevalence Surveys

Lori D Merkel, MS, BSN, RNC-NIC, NDNQI Site Coordinator
Debbie L Stoner, AS, Systems Analyst

Purpose
This intervention provides real-time feedback to nursing units about NDNQI Pressure Ulcer (PU) prevalence survey findings. Integrating technology into the process improves efficiency and accuracy of data collection. Rapid distribution of the quarterly evaluation results increase opportunities to implement prevention measures.

Significance
The Pressure Ulcer Prevention (PUP) team assesses approximately 380 patients each PU survey day. Previously a paper audit tool (Teleform) was used to collect data. The process was cumbersome and delayed communication of important findings to nursing units. Data integrity and accuracy also suffered.

Results of analysis from the paper audits revealed inconsistent, incomplete and/or unnecessary data collected on patients. Furthermore, findings disseminated weeks after the survey proved to be untimely and unactionable.

Strategy and Implementation
➢ Plan, Do, Check, Act (PDCA) methodology was used to create an electronic data collection tool.
➢ This process decreased data entry errors and enabled real time communication of survey findings to each nursing unit via an electronic report.
➢ Data collector training provided time to practice with the new tool prior to going live.
➢ Training emphasized the importance of sending the electronic report to the nurse manager and skin resource nurse immediately after completing each unit’s survey.
➢ Electronic reports heightened awareness of patient needs and current nursing practice observed on each unit.
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➢ Follow up evaluation was conducted on usefulness of the process and data consumer satisfaction.

Pre and Post Results for Pressure Ulcer Survey Data Collection

<table>
<thead>
<tr>
<th>Required Data Fields</th>
<th>Missing Data: Q4 2011 (%)</th>
<th>Missing Data: Q1 2012 (%)</th>
<th>Relative % Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time since last assessment?</td>
<td>1.4</td>
<td>0.4</td>
<td>71.4</td>
</tr>
<tr>
<td>Patient at risk?</td>
<td>1.4</td>
<td>0.7</td>
<td>50.0</td>
</tr>
<tr>
<td>If at risk, prevention in place?</td>
<td>35.2</td>
<td>3.3</td>
<td>90.6</td>
</tr>
<tr>
<td>Overall % Missing Data:</td>
<td>38</td>
<td>4.4</td>
<td>88.4</td>
</tr>
<tr>
<td>Inconsistent Data Elements</td>
<td># of Errors (n)</td>
<td># of Errors (n)</td>
<td>Relative % Change</td>
</tr>
<tr>
<td>Ulcer Mismatches</td>
<td>2</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Ulcers recorded without Stage</td>
<td>3</td>
<td>1</td>
<td>66.7</td>
</tr>
<tr>
<td>Overall # Inconsistent Data</td>
<td>5</td>
<td>1</td>
<td>80.0</td>
</tr>
</tbody>
</table>

Avoiding Unnecessary Data Collection Improves Efficiency and Decreases Wasted Time:

Q4 2011 (Pre)
• 73 patients excluded
• 38 had detail collected (52%)
• 228 minutes or 3.8 hours

Q1 2012 (Post)
• 33 patients excluded
• 3 had detail collected (9.1%)
• 18 minutes

Practice Implications
Integrating technology and enhancing the process of conducting the NDNQI quarterly PU prevalence survey proved successful in providing timely, meaningful information to nursing units. Engaging nurses in real-time assessment of patients’ needs results in immediate implementation of quality care.

NQ= Nursing Quality
• 73 patients excluded
• 38 had detail collected (52%)
• 228 minutes or 3.8 hours

Q4 2011 (Pre)
• 33 patients excluded
• 3 had detail collected (9.1%)
• 18 minutes

Q1 2012 (Post)