Incorporating Bedside Report Into Nursing Handoff
Evaluation of Change in Practice

Kari Sand-Jecklin, EdD, RN; Jay Sherman, ME, CNRN

Nursing shift report on the medical-surgical units of a large teaching hospital was modified from a recorded report to a blend of both recorded and bedside components. Comparisons between baseline and postimplementation data indicated increased patient satisfaction and nurse perception of accountability and patient involvement but reduced nurse perceptions of efficiency and effectiveness of report. Patient falls at shift change and medication errors were reduced, whereas nurse overtime remained unchanged. Keywords: bedside report, communication, evidence-based practice, handover, nursing shift report

Up to two-thirds of sentinel events in hospitals are related to communication problems,1 with nurse-to-nurse handover of patient care presenting a large risk for potential miscommunication. Despite this, there is little evidence for what constitutes best practice in handovers.2 Using the evidence-based practice model of Rosswurm and Larrabee,3 the Medical Surgical Research Utilization Team (MSRUT) at West Virginia University Healthcare investigated a means of improving the nursing handover process.

One type of handover that is recommended in the literature is conducting nursing shift report at the patient bedside. The literature on nursing bedside report consists primarily of qualitative studies,4-7 studies that focus on describing implementation of the bedside report,8-14 and studies with unreported or small sampled sizes.8,14,15-23 Many of the studies are older, and a literature search found few articles published in the last several years. Although quantitative data were limited, the MSRUT found the evidence for bedside report compelling and decided to implement the practice change of moving from a recorded report to a blend of both recorded and bedside reports. The MSRUT also decided to evaluate both the process and outcomes of this change in terms of effectiveness, efficiency, patient and staff satisfaction, and impact on patient safety.

LITERATURE REVIEW

Several benefits are reported in the literature for bedside nursing report. These benefits can be grouped into 3 areas: patient satisfaction, nursing satisfaction, and patient outcomes, although these areas are often interrelated. Bedside nursing report has been found to improve patient satisfaction by keeping the patients better informed,8,14,19,23 keeping them more involved in their care,8,18,19 improving the nurse-patient relationship,8,19,23 and reducing discharge times due to improvements in patient education.16 A general improvement in patient satisfaction has also been reported.15,22,25
Bedside report can lead to improvements in nurse satisfaction by increasing the efficiency of the report, improving staff teamwork, increasing nursing accountability, and increasing mentoring opportunities between nurses. It may also promote better task prioritizing at the beginning of the shift, increase report accuracy, and improve nurses’ ability to answer physicians’ and ancillary services’ questions at the beginning of the shift. Patient outcomes may be affected in a positive manner. In studies with small sample sizes, there have been reports of a decrease in falls and improvements in safety.

The main drawbacks that have been associated with bedside report are the potential loss of patient privacy and increases in overtime as a result of the report taking longer. Patient privacy with bedside report is a common concern among nurses and also with a small but nonetheless important group of patients. The few studies in the literature that have addressed the length of time associated with bedside report have presented inconsistent findings. One published article found bedside report to be longer, another reported it took about the same time as taped report, and 3 articles found it to be shorter.

Additional negative issues with bedside report include some patients tiring of hearing a similar report given day after day. Some patients indicated that the use of medical jargon made them feel as if they were being “talked over.” For other patients, simply hearing details about their medical condition might cause anxiety. Concerns about such sensitive information, combined with attempts to keep the report a reasonable length of time, have led nurses in all but one of the published articles to perform part of the report in private and part at the bedside.

In summary, a review of the literature indicates many positive and few negative outcomes for bedside shift report. However, the majority of these findings are based on small or unreported sample sizes, and few of them present quantitative evidence as to the benefits or drawbacks of this report format. In addition, a thorough search of the literature found few recently published studies related to bedside nursing report. On the basis of the generally positive nature of the research findings, we decided to implement a blend of both recorded and bedside reports. A modified recorded report was continued to ensure that both oncoming and off-going nurses would not be simultaneously occupied with shift report for an excessive amount of time.

In adding, the recorded report gives nurses the opportunity to exchange sensitive information privately and can help avoid tiring patients with long and repetitive reports day after day.

**PRACTICE CHANGE PROCESS**

Prior to implementation of this process change, the medical-surgical nurses at this facility individually listened to recorded report specific to each patient for whom they would be caring at the beginning of the work shift. This recorded report followed an SBAR (situation-background-assessment-recommendation) format. A standardized nursing report guideline was available, but its use was not mandatory, and there was some flexibility in the exact ordering of the information and amount of detail to be presented. In changing to a combination of recorded and bedside reports, we decided to condense the content included in the recorded portion. An SBAR format was still to be used, but to ensure that the total report did not take an excessive amount of time, nurses were instructed to reduce the length of the recorded report by omitting excessive detail on the assessment that was not essential. For example, if the patient’s neurological status was within normal limits, the nurse was instructed to simply say that, as opposed to saying “the patient is alert and oriented times 4, follows commands, speech is clear, face is symmetrical, etc.”

A training video was made for nurses that included examples of bedside reports for a range of patients representing those on the various medical-surgical units at the study...
institution. All nurses viewed the training video. Handouts describing what to include in the recorded and bedside reports were distributed to nurses. Bedside shift report could include all of the following: an introduction; a brief description of the patient situation; scheduled tests and procedures; observation of incisions, intravenous catheters and drains; safety checks including restraints, patient positioning, potential safety precautions, and high-alert medications; assessment of pain; the plan of care for the upcoming shift; and any updates since the taping of the recorded portion of report. Nurses were instructed to begin bedside report with an introduction and to then ask for permission to perform the report in case any patients had privacy concerns or other issues with the reporting process.

Bedside nursing report was implemented simultaneously across the 7 medical-surgical units. Units included were neurology/neurosurgery, orthopedics/plastics, trauma, medicine, surgical, medical-surgical step-down, and observation. Some (38 of 199) patient beds in the study were semiprivate. As bedside report was initiated, clinical preceptors and managers also joined staff nurses to provide guidance and help in refining the process. One month after implementation, a narrative nursing survey was administered to obtain information on how the process change was going. Data from this informal survey were used by the research team to provide guidance in improving adherence to the practice change.

**METHOD OF EVALUATION AND INSTRUMENTS**

Institutional review board approval was obtained before beginning the study. Baseline data were collected on patient satisfaction with nursing care and nurse satisfaction with shift change report. Anonymous patient surveys along with a cover letter were distributed by a member of the research team to a convenience sample of patients scheduled for discharge that day on all of the medical-surgical units. Patients who had been on the units for less than 48 hours were excluded from the study, as they may have had limited experience with shift change report. If patients were not able to complete the survey themselves, family members were allowed to complete the survey for the patient and indicated that on the survey. Patients were provided with an envelope in which to seal their completed or blank survey forms before returning them to the researcher ahead of hospital discharge.

Baseline data on nurse satisfaction with shift report were collected via an online survey during the same time frame as the patient surveys. Baseline data for patient falls during shift change, medication errors, and nurse overtime were also collected for the same monthlong period.

One month after implementation of the practice change, a short, open-ended survey was placed in nurses’ mailboxes on all of the participating medical-surgical units. Nurses were sent an e-mail asking them to complete these anonymous surveys and return them to a collection envelope on the unit. Finally, 3 months after implementation of the practice change, patients and nurses were again surveyed and patient fall, medication fall, and nurse overtime data were collected for a month. Data analysis included t-test comparisons of pre- and postimplementation patient and nurse survey responses, medication errors, and falls. Paired t-test comparisons were made between baseline and postimplementation overtime data, and descriptive analysis was conducted with the narrative nurse survey.

**Instruments and measures**

The Patient Views on Nursing Care Instrument was adapted with permission. This patient survey contained 17 questions covering such topics as treating the patient with respect and in a kind way, listening carefully, informing the patient about care, teaching in a manner the patient could understand, working well together, communicating important information from shift to shift, including the patient in report discussions, and keeping health information private. Each
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question had 5-point response options, with 1 indicating poor care and 5 indicating excellent care. The instrument was reviewed by nursing managers, staff nurses, and an instrument development expert. Cronbach $\alpha$ for the instrument was 0.96, and inter-item correlations ranged from 0.49 to 0.80, indicating that items measured were related but not identical constructs.

The Nursing Assessment of Shift Report instrument was developed on the basis of a review of the literature and identification of the potential benefits and drawbacks of implementing bedside reporting. The nursing survey contained 17 questions, with Likert-type agreement response options ranging 1 (strongly disagree) to 5 (strongly agree). Item content included perceptions of the effectiveness and efficiency of report; the report’s contribution to identifying changes in patient status and promoting patient safety; the impact of report on nurse accountability, mentoring, and teamwork; the adequacy of report in providing information needed for care; and whether the report promoted patient involvement in care. Overall reliability for the instrument was 0.90, with inter-item correlations ranging from 0.20 to 0.71. The nursing survey also contained demographic items including age, years in nursing, current degree held, and usual shift worked.

The narrative nursing survey was designed to gather formative data about initial perceptions of shift report. It contained only 3 questions asking what was going well and not going well with bedside report and for suggestions to improve report. This survey was placed in all nurses' mailboxes, with instructions to return completed surveys in an envelope on each individual unit. Survey responses were coded by themes for descriptive analysis.

The outcome measures of medication errors and patient falls at the time of shift change were gathered from facility patient event databases. All unexpected adverse patient events are documented in these databases for the purpose of quality improvement activities. Nurse overtime was calculated from unit employee time records. The managers of each study unit identified 9 staff nurses each for whom time records would be monitored: 3 nurses with 1 to 2 years' experience, 3 nurses with 3 to 5 years' experience, and 3 nurses with 6 or more years' experience, including representation from all shifts. Overtime was calculated for 10 shifts during May 2011 (prior to implementation of bedside reporting) and for 10 shifts during November 2011 for the same nurses at both data collection points.

**BEDSIDE SHIFT REPORT RESULTS**

**Patient data**

The Patient Views on Nursing Care survey was completed by 232 patients and 70 family members during the preimplementation data collection period and 178 patients and 72 family members the postimplementation data collection period. Respondents were highly satisfied with nursing care before and after implementation of bedside report, with all means between 4 and 5. The lowest rated items were “include in shift report discussion” (mean: preimplementation, 4.0; postimplementation, 4.3) and “tell you about plans for discharge” (mean of 4.2 pre- and 4.4 post-implementation). Highest rated items were “treat you in a polite, kind way” (mean: pre- and postimplementation, 4.7) and “treat you with respect” (mean: preimplementation, 4.6; postimplementation, 4.7). Three items had means of 4.6 pre- and postimplementation: “staff work well with each other to care for you,” “nurses listen carefully without interrupting,” and “keep health information private.”

Independent $t$-test comparisons revealed significantly higher scores postimplementation on 2 items: “made sure I knew who my nurse was” and “include in shift report discussion.” Because several surveys were completed by patients’ significant other who may not have been present at the time of shift report, the analysis was repeated using only surveys completed by patients. Results indicated that postimplementation responses were
significantly more positive for the items “made sure I knew who my nurse was,” “include in shift report discussion,” and “communicated important information about care from shift to shift” (Table 1).

Patients were invited to add narrative comments on the postimplementation survey. Of the 251 comments, 102 (42%) were positive whereas 24 (10%) indicated that the nursing staff did not use bedside report, used it inconsistently, or used it only to introduce the oncoming nurse. Comments about inconsistency in use of bedside report were found across units. Some patients (n = 20; 8%) believed that bedside report improved information flow, either to or from the patient, whereas 9 patients (4%) commented that it promoted good communication among staff. There were only 4 negative comments about bedside report: not feeling included in the report, that the report was unnecessary, and concern about privacy. Findings of both the quantitative and qualitative portions of the survey indicated that patients perceived care and bedside reporting positively, but bedside report was not being performed consistently.

Nurse perceptions of bedside report

Nurses were asked to respond narratively in a formative evaluation of bedside report 1 month postimplementation. The most frequent responses to the question asking what is going well with bedside report included the following: “checks of intravenous medication and safety,” “introduction of oncoming staff,” “assessment of patient status,” and “able to see patients earlier in the shift” (Table 2). In addition, some nurses stated that bedside report “improves accountability” and “increases patient involvement.” Nurses indicated, however, that bedside report was “too time consuming,” “used inconsistently or not as designed,” and “repetitive” (Table 2). The most common suggestions to improve bedside report included not using either bedside or recorded report (n = 17; 31%) and keeping patients on the same assignment team (n = 10; 18%).

Nurses were surveyed about their perceptions of the current report process both at baseline and 3 months postimplementation. The baseline survey was completed by 148 nurses, and 98 nurses completed the postimplementation survey. There were at least 10 respondents from each of the 7 targeted units and representation from all shifts on both surveys. The predominant age range of nurses completing the survey was 22 to 34 years, with a mean of 10 years of nursing work experience. Most respondents had bachelor of science in nursing degrees. No significant demographic differences were found among nurses who completed the surveys pre- and postimplementation.

Independent t tests indicated a significant difference between baseline and postimplementation scores for the 7 survey items. There was a decrease in score (indicating less

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Pre M (SD)</th>
<th>Post M (SD)</th>
<th>t (df)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Made sure I knew who my nurse was</td>
<td>4.56 (0.74)</td>
<td>4.71 (0.64)</td>
<td>−2.19 (408)</td>
<td>.029</td>
</tr>
<tr>
<td>Included in shift report discussion</td>
<td>4.00 (1.24)</td>
<td>4.31 (1.10)</td>
<td>−2.41 (336)</td>
<td>.017</td>
</tr>
<tr>
<td>Communicated important information about care from shift-to-shift</td>
<td>4.40 (0.92)</td>
<td>4.61 (0.73)</td>
<td>−2.43 (389)</td>
<td>.016</td>
</tr>
</tbody>
</table>

*Items with significant differences between pre- and post-implementation.
Table 2. Nurse Perceptions of Bedside Report: Narrative Data

<table>
<thead>
<tr>
<th>Question</th>
<th>Comments</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is going well?</td>
<td>Checks of intravenous medications and safety</td>
<td>20 (20)</td>
</tr>
<tr>
<td></td>
<td>Introduction of oncoming staff</td>
<td>16 (16)</td>
</tr>
<tr>
<td></td>
<td>Assessment of patient status</td>
<td>15 (15)</td>
</tr>
<tr>
<td></td>
<td>Able to see patients earlier in shift</td>
<td>10 (10)</td>
</tr>
<tr>
<td></td>
<td>Improves accountability</td>
<td>8 (8)</td>
</tr>
<tr>
<td></td>
<td>Increases patient involvement</td>
<td>7 (7)</td>
</tr>
<tr>
<td>What is not going well?</td>
<td>Too time consuming</td>
<td>23 (23)</td>
</tr>
<tr>
<td></td>
<td>Used inconsistently or not as designed</td>
<td>14 (14)</td>
</tr>
<tr>
<td></td>
<td>Requires report from multiple nurses</td>
<td>13 (13)</td>
</tr>
<tr>
<td></td>
<td>Is repetitive</td>
<td>9 (9)</td>
</tr>
<tr>
<td></td>
<td>Is used for caregiving purposes</td>
<td>9 (9)</td>
</tr>
<tr>
<td></td>
<td>Nurses not ready for report</td>
<td>6 (6)</td>
</tr>
<tr>
<td></td>
<td>Disturbs patients</td>
<td>6 (6)</td>
</tr>
<tr>
<td>Suggestions to improve report</td>
<td>Stop either recorded or bedside report</td>
<td>17 (31)</td>
</tr>
<tr>
<td></td>
<td>Keep patients on same “team” for nurse assignments</td>
<td>10 (18)</td>
</tr>
<tr>
<td></td>
<td>Oncoming nurses need to come early</td>
<td>8 (15)</td>
</tr>
<tr>
<td></td>
<td>Decrease information given in recorded report</td>
<td>5 (9)</td>
</tr>
<tr>
<td></td>
<td>Help nurses improve report</td>
<td>5 (9)</td>
</tr>
</tbody>
</table>

positive perceptions at postimplementation) for 5 items: the current system is an effective and efficient means of communication, is stress free, prevents delays in patient care or discharge, and is completed within a reasonable amount of time. Nurses were more positive postimplementation in terms of bedside report, ensuring accountability and involving patients in care (Table 3). Further analysis was conducted by units and findings were

Table 3. Nurse Perceptions of Bedside Report

<table>
<thead>
<tr>
<th>Item</th>
<th>Pre M (SD)</th>
<th>Post M (SD)</th>
<th>t (df)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report: is effective means of communication</td>
<td>4.04 (0.56)</td>
<td>3.61 (0.99)</td>
<td>3.89 (244)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>is efficient means of communication</td>
<td>3.89 (0.76)</td>
<td>3.82 (1.13)</td>
<td>4.35 (244)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>is relatively stress free</td>
<td>3.63 (0.85)</td>
<td>3.02 (1.05)</td>
<td>4.80 (244)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>helps prevent delays in patient care</td>
<td>3.40 (0.96)</td>
<td>3.10 (1.09)</td>
<td>2.25 (244)</td>
<td>.025</td>
</tr>
<tr>
<td>is completed in reasonable time</td>
<td>3.69 (0.86)</td>
<td>3.08 (1.16)</td>
<td>4.42 (244)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>ensures accountability</td>
<td>3.43 (0.98)</td>
<td>3.81 (0.94)</td>
<td>-3.00 (244)</td>
<td>.003</td>
</tr>
<tr>
<td>promotes patient involvement in care</td>
<td>2.64 (0.96)</td>
<td>3.66 (0.92)</td>
<td>-8.30 (244)</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

*Items with significant differences between pre- and post-implementation.
inconsistent, suggesting that staff may perceive bedside report differently across units. This may be related to the inconsistencies noted in implementation of this change in practice and the potential redundancies in the 2 reporting mechanisms if nurses did not follow the reporting guidelines.

**Patient and nurse outcomes**

The patient outcomes of falls during shift change and documented medication errors were measured in the month prior to bedside report and for 1 month beginning 3 months postimplementation. The number of falls per month for all units combined during shift change decreased from 20 preimplementation to 13 postimplementation (a 35% reduction rate), and the overall number of documented medication errors decreased from 20 preimplementation to 10 postimplementation (a 50% reduction rate). These changes were not statistically significant, most likely due to the small numbers of falls and medication errors on each unit. However, an overall reduction in these adverse patient events is of clinical significance. Comparisons of nurse overtime indicated no significant change between baseline and 3 months postimplementation.

**DISCUSSION**

Implementation of the practice change from a completely recorded shift report to a blend of recorded and bedside reports has resulted in several significant outcomes, including improved patient perceptions of nurse communication and involvement in care and improved nurse perceptions of nurse accountability and patient involvement in care. In addition, both medication errors and patient falls at shift change decreased, although the changes were not statistically significant.

Both patients and nurses reported inconsistencies in bedside reporting, and nurses perceived the new reporting process to be less efficient. The perceived inefficiencies were not, however, supported by analysis of overtime data, in that no significant differences in overtime between baseline and postimplementation measures were found. One explanation for these results may be that between the 1 month postimplementation narrative nurse survey and the 3 month overtime data monitoring, nurses had become more efficient in the blended process containing both recorded and bedside reports. In addition, it may be that inconsistencies in nurse implementation of the new reporting process contributed to the perception of inefficiency among nurses.

There seems to be more negative feedback from nurses in this study than others reported in the literature. This may be due, in part, to either the fact that we used an anonymous survey with a larger sample size or the nature of the questions asked of nurses on the survey. The literature on patient satisfaction related to bedside report has also suggested greater improvements than we have found, but previous studies had small or unreported sample sizes. Because patient perception of nursing care in this study was already positive, there may have been a ceiling effect that made significant improvements more difficult to achieve. The 3 items that reflected significant improvement in patient perceptions were related directly to bedside reporting (introducing the oncoming nurse, including the patient in report discussions, and the patient being able to hear information communicated from nurse to nurse during report), whereas the other items reflected nursing care that occurred throughout the patient stay.

**Limitations**

There were some limitations associated with this study. First, the study included a convenience sample of discharged patients and nurses. It is possible that the patients and nurses who completed the surveys were not representative of the entire population of patients and nurses on the medical-surgical units. Second, because no identifiers were collected for the online nurse survey and nurses were allowed to complete the survey on the hospital units at work, no limitations were imposed on the number of surveys submitted.
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from any one computer ISP address. Thus, it is possible that 1 nurse may have completed more than 1 survey during the baseline or postimplementation data collection period, although we have no evidence that this occurred. Finally, inconsistencies in nurse implementation of the blended reporting process were reported, but the degree or frequency of these inconsistencies was not quantified.

IMPLICATIONS

On the basis of these findings, we have planned to implement several interventions to improve consistency in shift report and the efficiency of reporting. Through the use of e-mail and posters, the current results have been disseminated to staff nurses with a review of the benefits of nursing bedside report. In particular, the importance of discussing the short-term plan of care (eg, pain management) and the long-term plan (eg, discharge) with the patient is emphasized. In addition, a new electronic charting system is being implemented that will increase communication of patient information among the various disciplines. This should improve staff nurses’ knowledge of the interdisciplinary plan of care. We have also added a computerized patient record summary that is designed specifically for use with bedside report, although it is not yet mandatory. Nurses are encouraged to take a computer with them for bedside report so that they can use this new patient summary tool at the bedside and safety checks can be documented properly. We are also continuing to monitor nurse shift report, offering feedback to nurses to improve the reporting process, and plan a follow-up survey of nurses and patients again at 9 months.

On the basis of findings of this practice change evaluation study, we suggest that a blended form of recorded and bedside shift reports may improve patient perceptions of communication among nurses and involvement in care, as well as nurse perceptions of accountability and patient involvement in care, without increasing nurse overtime. In addition, a blended report mechanism may reduce the frequency of medication errors and patient falls at shift change. However, a blended report format may be perceived by nursing staff as less efficient than a recorded report format. Inconsistencies in implementation and redundancies between the recorded and bedside components of report most likely contributed to this perception. As with all practice changes, it is important to address inconsistencies in implementation and perceived barriers to the practice change and to enact interventions to remove these barriers. Additional studies on the outcomes of a blended process containing both recorded and bedside shift reports are warranted to provide additional evidence for best practices in nursing shift report.

REFERENCES


