Standardized Handoff Tool for Bedside Shift Report in

a Cardiac Surgery Telemetry Unit

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Abstract

Problem and Purpose: Bedside shift report (BSR) is an evidence-based practice utilized by nurses to communicate patient information and plan of care. An unstandardized shift report delivered at the nursing station may lead to miscommunication about important patient information, negate patient involvement, and may lead to unsatisfactory patient experience. Standardized BSR can improve patient safety, outcomes, and satisfaction (Scheidenhelm & Reitz, 2017). On the Cardiac Surgery Telemetry unit (CSTU) at a large teaching hospital, shift reporting lacked standardization. This ultimately was reflected in low patient satisfaction scores on the overall patient hospital experience, as measured by the Hospital Consumers Assessment of Healthcare Providers and Systems (HCAHPS). The purpose of this quality improvement project was to implement and evaluate the effectiveness of a standardized Situation, Background, Assessment, Recommendation (SBAR) handoff tool during BSR on the CSTU to promote patient and family involvement and improve nurse communication.

Methods: A BSR team was created that consisted of the project lead, unit manager, and four change champions. All staff nurses were educated and trained on the benefits of BSR and utilizing the Agency of Health Research and Quality (AHRQ) Bedside Shift Report Checklist as a guide (Appendix B). A Bedside Shift Report Staff Training Checklist was used to track nurse training completion and competency. A Bedside Shift Report Audit Form was used to track adherence with performing nurse handoff reports at the bedside (Appendix D).

Results: 100% of unit nurses completed education and training prior to project implementation. The mean weekly rate of adherence to BSR was 85.4% (range = 77.1%-91.2%) during the implementation period. Total BSRs expected were 1,626; actual BSRs performed were 1,388 (85.4%); and missed opportunities to perform BSRs were 238 (14.6%).

Conclusions: Standardizing nurse handoff report at the bedside is expected to increased nurse adherence to BSR and may have improved patients' perception on nurse communication, as well as patient safety. The unit manager will continue to monitor quarterly HCAPHS scores to determine whether nurse communication scores have improved over time, but these results will not be evaluated as a part of this QI project.

Introduction

Shift change handoff reports often lack standardization, and not routinely performing them at the bedside, can lead to miscommunication, failure to perform safety checks, lack of patient involvement, and an unsatisfactory patient experience (McAllen, Stephens, Kerr & Whiteman, 2018; Scheidenhelm & Reitz, 2017). A standardized handoff process at the bedside provides patients and their families the opportunity to stay informed and involved in their plan of care (Scheidenhelm & Reitz, 2017). Standardized bedside shift report (BSR) can improve patient safety, outcomes, and satisfaction (Scheidenhelm & Reitz, 2017). A handoff tool for BSR that utilizes a situation, background, assessment, and recommendation (SBAR) format (Agency for Healthcare Research and Quality Strategy, n.d.) can guide nurses in conducting a concise and consistent BSR (Scheidenhelm & Reitz, 2017).

On the cardiac surgery telemetry unit (CSTU) of a large teaching hospital, shift change report was not standardized and not routinely performed at the bedside. The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) creates pressure on the hospital to perform optimally, as scores determine hospital reimbursements from the Centers for Medicare and Medicaid Services (CMS) and affect the overall patient hospital experience. One of the patient satisfaction survey questions measured by the HCAHPS addresses nurse communication. In 2019, HCAHPS scores for nurse communication on the CSTU were consistently below 90%, (range = 73.0-86.8%). The purpose of this quality improvement (QI) project was to implement and evaluate the effectiveness of a standardized handoff procedure using the SBAR format to increase nurse adherence to BSR, and improve HCAPHS nurse communication scores. This allowed patients and their families the opportunity to stay informed and involved in their plan of care.

Literature Review

Utilization of BSR improves patient satisfaction and patient safety (McAllen, Stephens, Swanson-Bierman, Kerr & Whiteman, 2018; White-Trevino & Dearmon, 2018). An evidence review was conducted to provide a synthesis of evidence supporting a standardized nurse handoff process. The review includes studies that support BSR using an SBAR format, and increased nurse compliance with BSR. The studies were evaluated using Melnyk and Fineout-Overholt's (2015) level of evidence rating system and Newhouse's (2006) quality of evidence rating system (Appendix A).

Findings of the studies that were reviewed for this project suggest that BSR utilizing a SBAR or a modified SBAR format improves nurse adherence for performing BSR (Achrekar et al., 2016; Malfait et al., 2018; McAllen, Stephens, Swanson-Bierman, Kerr & Whiteman, 2018). All studies were conducted in hospital settings and were congruent in demonstrating an improvement with nurse adherence to BSR. Additionally, studies by McAllen et al. (2018) and White-Treveno et al. (2018) assessed patient satisfaction and nurse satisfaction scores, with improvement in both. Across all studies, the evidence appears to be low-moderate quality with two graded as level IIIs with a C quality rating and two graded as level VIs with a C quality rating. None of the studies reported power analyses to determine adequacy of sample size, a control group, or randomization, which threatened generalizability. While none of the studies were of high quality, all studies provided uniform evidence in support of utilizing an SBAR handoff tool at the bedside to improve nurse compliance to BSR.

Theoretical Framework

Kurt Lewin's change theory set the framework for implementing a standardized handoff tool during BSR. It is a three-stage model that consists of unfreezing, moving, and refreezing, in

which the old practice is rejected and replaced by the new practice change. The unfreezing

phase is important, as it is where the need for change is identified. To educate and enhance

motivation, the facilitator and volunteer team champions presented evidence on the benefits of

BSR, addressed barriers to implementation, and informed staff about the impact of BSR on the

patients' perceptions of nurse communication (HCAPHS), and its impact on hospital

reimbursement. Nurse feedback was solicited during this phase, and a timeline was provided so

everyone knew what to expect during the implementation process. The moving phase was when

implementation of BSR using a standardized SBAR handoff tool began. The implementation

team monitored nurse adherence by auditing charts under the nurse communication tab in the

electronic health record (EHR), mentored and supported nurses, and provided reminders to

individual nurses who were not consistently implementing the practice change. In the refreezing

phase, the nurses began adapting to the practice change and were routinely utilizing the

standardized SBAR handoff tool during BSR. Thus, the practice and became the new standard.

A nurse champion assumed responsibility for monitoring the practice change beyond the initial

adaptation period. Future monitoring and reinforcement will be crucial for sustaining the

practice so that nurses will not return to their old routine.

Methods

The CSTU is a 26-bed inpatient unit that include pre-operative and post-operative adult

patients who undergo open heart surgery. Nurses on the unit provide bedside care and perform

shift handoff twice daily. To engage patients and their family to participate in their plan of care,

BSR was implemented on the unit. Evaluation results were not generalizable, because nurse

adherence to the BSR practice change is only applicable for this particular unit and no new

knowledge was being generated regarding its effectiveness.

A BSR quality improvement (QI) project team was formed that consisted of the unit manager, the project lead, three BSR champions, and four nurses who audited the EHR twice daily. The nurse auditors monitored whether the RN Handoff Communication tab had been signed off in the EHR, to determine whether nurse handoff had been performed at the bedside.

Changes in the structure consisted of documenting that all nurses were trained and deemed competent in delivering the new handoff process. The gradual release of responsibility or scaffolding model (Vygotsky, 1978) was used to guide the phased training. First, the project lead provided direct instruction on using the AHRQ Bedside Report Checklist to conduct BSR, and on conducting and documenting the daily on the RN Handoff Communication tab in the EHR. Next, the project lead and nurse champions provided guided instruction to staff nurses at the bedside to model proper administration of BSR using the Situation, Background, Assessment, and Recommendation (SBAR) checklist (Appendix B). The SBAR checklist assisted the nurses in communicating important patient information and the plan of care. Then, staff nurses delivered BSR using the SBAR format under supervision until the trainers determined that they needed no cues or prompts and could practice independently. Nurse competence for delivering BSR with fidelity to the model was documented using the Bedside Shift Report Staff Training Checklist (Appendix C).

Changes in process consisted of improved nurse adherence to BSR and consistent checking of BSR on the RN Communication tab. Data collection included room number, admission and discharge dates, and whether the BSR had been completed on each shift. The BSR team retrieved that information from the EHR and entered the yes/no responses on the Bedside Shift Report Audit Form (Appendix D).

The outcome measure, weekly rates of BSR completion, were calculated using the daily number of BSRs completed divided by the total daily census, and were compared from baseline to implementation. Length-of-stay (shorter vs longer) was analyzed to determine whether this influenced nurse adherence. Nurses who repeatedly missed documenting the BSR on the RN Communication tab were provided reminders via one-to-one meetings. Reminders and progress reports were emailed to the nurses to further promote adherence.

This quality improvement (QI) project was designated as non-human subjects research by the medical center's institutional review board (IRB). To ensure protection of human subjects, no patient health information or nurse identifiers were collected and only anonymous data were used for project evaluation. Audit forms were secured in a locked cabinet, and electronic data were stored on a password-protected computer.

Results

During the pre-implementation phase (Weeks 1-4), 100% of the nurses were educated, trained, and assessed for competence (Figure 1). No BSRs were performed during this period. Data were captured on a total of 185 patients over a 10-week implementation period. The mean weekly adherence rate was 85.4% with a range range=77.1% to 91.2% (Figure 2). The expected number of BSRs was 1,626; 1,388 (85.4%) were actually performed, indicating 238 missed opportunities (14.6%).

Of 185 patients, 76.8% (n=142) had documentation of both an admission and a discharge date; the remaining 43 were excluded from the length-of-stay calculation because they were admitted before or discharged after the 10-week implementation period. Mean LOS was 6 days (SD = 4.27; range = 1 to 29 days). Data were recoded for long LOS ($>/=$ 6 days) vs. short LOS

(< 6 days), but there was no association found between LOS and BSR adherence X^2 (1, n=142) = 2.3225, $p = .146871$.

Several barriers were encountered during implementation. A high turnover rate resulted in the loss of two BSR team members and four missed days of EHR data. Two rooms on the unit were semi-private, raising privacy concerns, therefore, handoff was not performed at the bedside unless there was only one patient in these rooms. There was some resistance to change from a few nurses who stated that handoff would take longer due to patient interruptions; these nurses consistently missed BSRs. Other barriers presented when patients were off the unit during handoff, were not cognitively appropriate to participate in their plan of care, or did not want to be disturbed while sleeping.

Discussion

Bedside shift report is an evidence-based practice, and use of an SBAR or modified SBAR format improves nurse adherence for performing BSR (Achrekar et al., 2016). This QI project achieved results similar to those found in previous studies supporting use of the SBAR handoff tool to improve patient satisfaction scores (McAllen, Stephens, Swanson-Bierman, Kerr & Whiteman, 2018; Scheidenhelm & Reitz, 2017; White-Trevino & Dearmon, 2018) and nurse adherence to BSR (Achrekar et al., 2016; Malfait et al., 2018). Numerous nurses stated that they like BSR because it provided a baseline snapshot of their patients at the start of shift. Patients also appreciated being included in the handoff process. Patient's perceptions of nurse communication on the HCAHPS could not be evaluated during the 10-week implementation periods, as these are published quarterly, however, it is anticipated that there will be improvement on these scores.

While there was room for improvement, on the 84.3% BSR adherence rate, this was affected by patients who refused participation of the handoff process at the bedside, patients who were off the unit during handoff, or if a computer at the bedside was out of order. A few nurses who were resistant to the practice change also impacted the weekly percentages as there is a 1:3-4 nurse-to-patient ratio, and if nurse failed to perform BSR, up to four BSRs could have been missed. Failure to track reasons for missed BSRs or nurses' perceptions about the usefulness of the tool were limitations of this project. Also, while BSR team members were uniformly trained, one team member per shift conducted the EHR checks, which could have affected reliability of the results.

Conclusions

A standardized handoff tool, like the Agency for Healthcare Research and Quality (AHRQ) Bedside Shift Report Checklist (Agency for Healthcare Research and Quality Strategy, n.d.), can be utilized to highlight important elements of BSR: Situation, Background, Assessment, and Recommendation (SBAR). The SBAR format helps to guide nurses in conducting a standardized and concise BSR, and can improve communications among the nurses and with patients and their families. Utilizing the SBAR format for BSR may also improve safety (White-Trevino & Dearmon, 2018) and patient satisfaction (McAllen, Stephens, Swanson-Bierman, Kerr & Whiteman, 2018; Scheidenhelm & Reitz, 2017). Continued support from nurse champions and nurse managers can improve nurse adherence and sustainability of the BSR practice change. Utilization of supports within the EHR, such as a signing off handoff on the Nurse Communication tab also helps to quantify adherence rates and make the practice a routine part of quality care.

Anecdotally, most nurses indicated that they liked conducting BSR, as it provided them a baseline assessment of the patients at the start of their shift. Most patients also said they enjoyed and appreciated being included in the handoff process and felt more involved in their care. While scores on the HCAHPS for patient satisfaction with nurse communication were not captured during this 10-week QI project, it is anticipated that these will improve with continued use of BSR overtime. Likewise, the BSR team intends to track increased rates of BSR adherence in relation to anticipated declines in falls and medication errors.

The AHRQ Implementation Toolkit (Strategy 3: Nurse Bedside Shift Report, 2013) provides useful information to help guide the implementation process including educational materials and a standardized BSR checklist. The success of this QI project indicates that implementation of a standardized, evidence-based process for BSR that uses methods like those described above can be both, feasible and sustainable, and will likely improve patient safety and quality of care.

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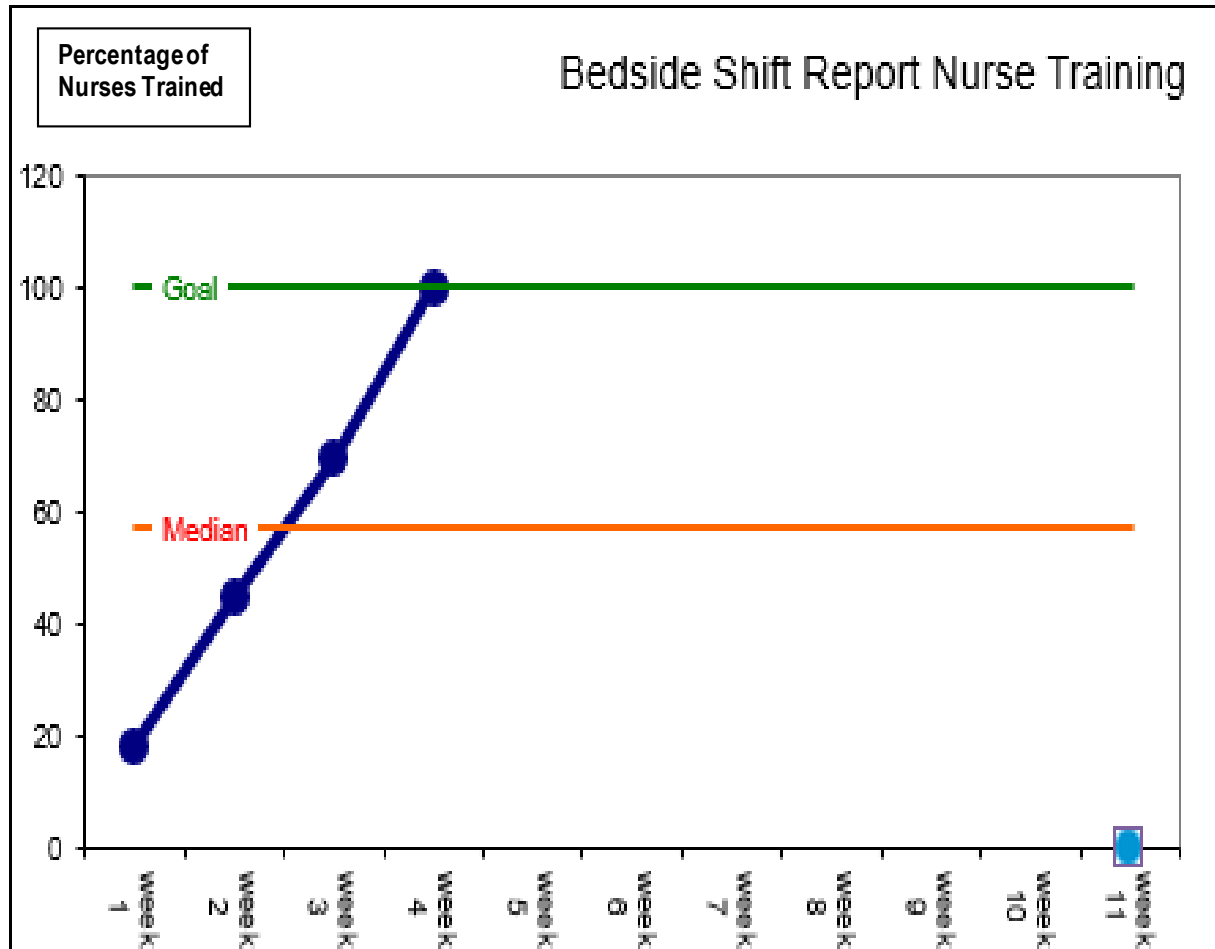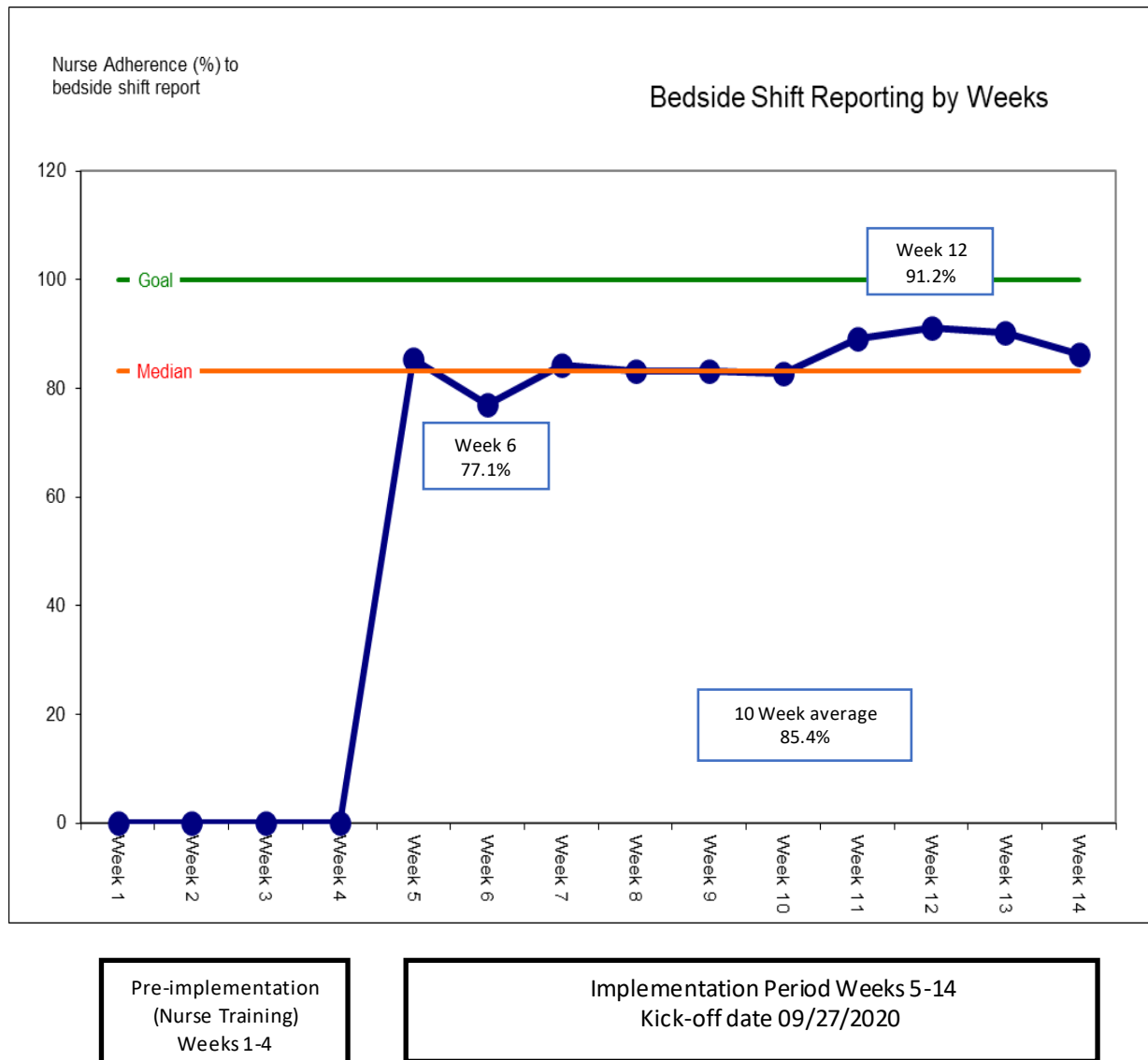
Figure 1

Bedside Shift Report Nurse Training Run Chart

Figure 2

Run Chart of Nurse Adherence to Bedside Shift Report

Appendix A

Evidence Review and Synthesis Tables

Citation: Achrekar, M. S., Murthy, V., Kanan, S., Shetty, R., Nair, M., & Khattry, N. (2016). Introduction of situation, background, assessment, recommendation into nursing practice: A prospective study. *Asia-Pacific Journal of Oncology Nursing, 3*(1), 45–50. doi: 10.4103/2347-5625.178171					Level III
Purpose/ Hypothesis	Design	Sample	Intervention	Outcomes	Results
"To introduce and evaluate the compliance to documentation of situation, background, assessment, recommendation (SBAR) form."	Quasi-experimental	Sampling Technique: Simple random sampling Of 113 nurses in a larger study, 20 nurses (n=20) were selected for observation by simple random sampling using research randomizer software. Power analysis: Not reported Though 100% compliance would be considered as excellent, a benchmark of 80% and above was considered as acceptable. Group Homogeneity:	Control: none Intervention: Nurse handover using SBAR format in a clinical setting A self-instructional module (SIM) on clinical communication skill for nurses (used in the larger study) incorporated the SBAR format in which information and use of SBAR was illustrated. The content validity of the format was established by giving it to clinical and nursing experts. Intervention fidelity (describe the protocol): Not reported	DV: Compliance of using SBAR format during handover. Clinical and nursing experts evaluated via audit checklist: 29 items in four domains. Situation (10), background (7), assessment (7), and recommendation (5). Measurement tool: Inter-rater reliability of the audit checklist was established using the kappa statistic to determine consistency among raters (k = 0.91, $p <$ 0.001). A retrospective audit was undertaken at	Statistical Procedures(s) and Results: Significant improvement ($p = 0.043$) seen in overall scores between A1 (mean: 23.20) and A2 (mean: 24.26) and also in "Situation" domain ($p = 0.05$). Most (76%) of nurses expressed that SBAR form was useful, but 24% nurses felt SBAR documentation was time-consuming.

		There were 6 (30%) males and 14 (70%) female nurses. Majority (80%) of nurses were in age group 21-30 years. There was an equal representation of nursing qualifications		1st week (referred to as A1) and 16th week (referred to as A2) respectively, post introduction of SIM.	
Citation: Malfait, S., Eeckloo, K., Van Biesen, W., Deryckere, M., Lust, E., & Van Hecke, A. (2018). Compliance with a structured bedside handover protocol: An observational, multicentered study. *International Journal of Nursing Studies*, *84*, 12–18. doi: 10.1016/j.ijnurstu.2018.04.011					Level VI
Purpose/ Hypothesis	Design	Sample	Intervention	Outcomes	Results
"To determine the compliance with a structured bedside handover protocol following ISBARR and if there were differences in compliance between wards."	Non-experimental Descriptive Study	Sampling Technique: Random observation days on twelve wards with unannounced and non-participatory bedside handover observations. Multicenter study that included twelve wards in seven hospitals with the eligibility requirement of not previously practicing bedside handoff. N=638	Control: none Intervention: A structured bedside handover protocol following Introduction, Situation, Background, Assessment, Recommendation, Readback (ISBARR) A two-hour educational program (concerning bedside handover) or a six-hour educational program (concerning patient participation, bedside handover and ISBARR) was	DV: Compliance of bedside handover while using ISBARR Evaluated via audit checklist Measurement tool (reliability), time, procedure: One month after implementation, a minimum of 50 observations were performed with a checklist, in each participating ward.	Statistical Procedures(s) and Results: Average adherence with the structured bedside handover protocol was 83.63%. Surgical wards (85.34%) and wards for medical rehabilitation (85.90%) had an average adherence rate above 80%, geriatric wards (79.63%) had an average adherence rate just under 80%. The linear mixed-model analysis showed several significant differences between groups concerning adherence

| | | observations from seven wards.

Power analysis: Not reported

Group Homogeneity: Nurses from seven wards included five surgical wards, four medical rehabilitation wards, and three geriatric wards. | provided.

The educational program combined theoretical knowledge transfer (i.e., slideshow presentation and an information brochure) with practical, hands-on workshops in which the process was simulated and practiced in small groups of nurses.

Intervention fidelity (describe the protocol): To enhance reliability, 20% of the observations were conducted by two researchers, and inter-rater agreement was calculated. 145 of the 638 observations (22.73%) were performed by two researchers simultaneously. There was high agreement between two observers, with a kappa of 0.81 ($p < 0.001$). | Descriptive statistics and multi-level analyses were used to determine differences in nurse compliance in the different wards. A one-way ANOVA was used to determine differences between the types of wards not delivering a bedside handover. | with the structured content. Surgical nursing wards had a slightly higher adherence rate throughout the observations ($\beta = 0.031$; 95% CI = 0.005/0.016; $p = 0.017$) in comparison to geriatric wards and wards for medical rehabilitation. Wards with a two-tier nursing care model had lower adherence rates ($\beta = -0.034$; 95% CI = $-0.062/-0.005$; $p = 0.021$) compared to centralized and decentralized care models. Wards with an average length of stay over four weeks had a lower rate of compliance with the structured content protocol ($\beta = 0.041$; 95% CI = 0.020/0.063; $p < 0.001$) than wards with a shorter length of stay. |

Citation: McAllen, E., Stephens, K., Biearman, B., Kerr, K., & Whiteman, K. (2018). Moving shift report to the bedside: An evidence-based quality improvement project. *The Online Journal of Issues in Nursing*, *23*(2), 1-1. doi: 10.3912/OJIN.Vol23No02PPT22					Level III
Purpose/ Hypothesis	Design	Sample	Intervention	Outcomes	Results
"To evaluate fall rates, patient satisfaction, nurse satisfaction before and after implementation of bedside report into standard nursing care. "	Quasi-experimental	Sample technique: Convenience Sixty-seven nurses from three units of a Midwestern 532-bed, acute care, tertiary, Magnet designated teaching hospital were audited. n=157 total observations in a four-month interval. Power analysis: Not reported Group homogeneity: Nurses from three units; orthopedic, neuroscience, and general surgery	Control: none Intervention: Implementation of BSR utilizing the Introduction, Situation, Background, Assessment, Recommendation, Question (ISBARQ) format Intervention fidelity (describe the protocol): Team of six nurses, two directors, and two video personnel developed a handover script using the ISBARQ format to be used during bedside handoff. Prior to implementation, staff education included reading two relevant journal articles and watching a recorded clip created by the team to demonstrate the BSR process.	DV: Compliance to BSR process using ISBARQ, fall rates, patient satisfaction, and nurse satisfaction Measurement tools: A BSR audit tool was used to evaluate compliance to BSR, introducing the oncoming nurse; scripting in ISBARQ; updating the white board; and reviewing care. Shift report time audits, measured from the beginning of report until all handover communication ended, were completed pre-implementation and post-implementation in four-month interval. Number of patient falls was obtained through the hospital incident reporting system. The number of falls prior to BSR	Statistical Procedures(s) and Results: The BSR audit results revealed a compliance rate of 94% (*n*=157). Results also demonstrated that patient fall rates decreased by 24%. Patient satisfaction on the general surgery unit had statistically significant (*p* =0.03) improvement after implementation of BSR while the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) showed improvement, but the changes were not statistically significant. Nurse satisfaction improved with four of six nurse survey questions (67%) following implementation of bedside report. HCAHPS and Press Ganey results demonstrated improvement in Press Ganey® scores on two of the three nursing units.

				implementation was compared to the number of falls four-months following implementation of BSR. Patient satisfaction was measured by both Press Ganey (8 questions) and HCAHPS (2 questions relating to nurse communication) and compared from pre-implementation to the four months after implementation. Nurse satisfaction with the report process was determined using surveys pre- and post-implementation	Implementation of bedside report had a positive impact on patient safety, patient satisfaction, and nurse satisfaction
Purpose/ Hypothesis	Design	Sample	Intervention	Outcomes	Results
Citation: White-Trevino, K., & Dearmon, V. (2018). Transitioning nurse handoff to the bedside. *Nursing Administration Quarterly, 42*(3), 261–268. doi: 10.1097/NAQ.0000000000000298					Level VI
Purpose/ Hypothesis	Design	Sample	Intervention	Outcomes	Results

| "To implement and evaluate the effectiveness of a standardized patient-centered handoff report process using the SBAR-T format." | Non-experimental, cross-sectional, observational study | Sample technique: Convenience

46 nurses participated from a 39-bed hospital-based emergency department but only thirteen (n=13) bedside handoffs were observed, a limitation of the study.

Power analysis: Not performed

Group homogeneity: Emergency department nurses in one hospital | Control: none

Intervention: Implementation of an SBAR-T handoff report process.

Staff education was provided pre-implementation in the form of a 9-minute video developed by ED appointed team that introduced the SBAR-T handoff process.

Intervention fidelity: Not reported | DV: Rate of adherence with bedside handoff using the SBAR-T format, patient satisfaction on nurse communication, and nurse perception of their influence on patient satisfaction.

Measurement tool: Outcomes were measured through observation of bedside report process and nurse and patient surveys.

Survey Monkey post implementation assessment of nurse perceptions of their influence on five patient satisfaction care variables.

Press Ganey survey mailed to discharged patients to assess patient satisfaction with nurse communication. | Thirteen handoffs were observed, with 12 (92%) of these occurring at the bedside. 7 of 12 (58%) patients participated in shift change. Twelve patients were interviewed after the handoff observation and 11 of the 12 (92%) indicated satisfaction. Statistical analysis determined nurse perceptions of how the revised process influenced patient satisfaction care variables. Only 35% (16 of 46 participants) responded to the online postintervention survey. Wilcoxon scores were calculated with a $\chi 2$ of 0.356, which is not a statistically significant finding.

Patient satisfaction scores for all 5 nurse communication indicators postimplementation trended upward for 3 consecutive quarters.

The study showed that a structured, patient-centered bedside handoff process can reduce safety risk and promote |

					satisfaction with care through reliable information exchange.

System for Hierarchy of Evidence

Level of Evidence	Type of Evidence
I (1)	Evidence from systematic review, meta-analysis of randomized controlled trails (RCTs), or practice-guidelines based on systematic review of RCTs.
II (2)	Evidence obtained from well-designed RCT and/or reports of expert committees.
III (3)	Evidence obtained from well-designed controlled trials without randomization.
IV (4)	Evidence from well-designed case-control and cohort studies
V (5)	Evidence from systematic reviews of descriptive and qualitative study
VI (6)	Evidence from a single descriptive or qualitative study
VII (7)	Evidence from the opinion of authorities

Melnyk, B. M. & Fineout-Overholt, E. (2015). Evidence-based practice in nursing & healthcare: A guide to best practice. Wolters Kluwer Health: Philadelphia, PA.

Synthesis Table

Evidence Based Practice Question (PICO): On a cardiac telemetry unit, will using a standardized handover tool with a SBAR format at the bedside compared to current practice of using non-standardized format, increase patient safety and satisfaction?			
Level of Evidence	**# of Studies**	**Summary of Findings**	**Overall Quality**
III	2	Achrekar et al. (2016) conducted a quasi-experimental study that showed an increase in compliance with nurse handover using the SBAR format. There was significant (p=0.04) improvement in overall scores between week 1 and week 2 scores. In the S (Situation) domain, improvement was statistically significant (p=0.045). There was marginal improvement in the other domains. 76% of nurses reported that SBAR format was useful while 24% felt the format was more time consuming. McAllen et al. (2018) found that implementation of a bedside shift report using ISBARQ format increased the rate of compliance of bedside shift report (BSR). Compliance rate was 94%. The project also documented decreased patient fall rates by 24%, a statistically significant (p=0.03) increase in patient satisfaction, and an increase in nurse satisfaction post implementation.	C, although this study used random sampling, there was no random assignment, as well as, small sample size and no control which threatened generalizability. No power analysis reported. Although there was high inter-rater reliability for the audit checklist, the SBAR format was a self-report tool and content analysis was not done so accuracy may be questionable. C, study was limited to one hospital with three units that volunteered to implement the project. There was no randomization, control group, or power analysis reported to determine adequacy of sample size. Though quality improvement design prevented generalization of findings to other settings. However, results indicate decreased fall rates and improved patient satisfaction, which are consistent with previous studies. Further research is recommended to track, measure, and evaluate more specific errors such as medication safety.

VI	2	Malfait et al. (2018) conducted a quasi-experimental study that showed increased compliance of bedside handover using the ISBARR format. Most with 80% or higher compliance rate. 12 wards in 7 hospitals participated.	B, the study had a large sample size but no power analysis reported. Randomized observations on 12 wards in 7 hospitals. Observations were unannounced and non-participatory. To increase reliability, 20% of the observations were conducted by two researchers, to produce a high inter-rater agreement kappa of 0.81 (p=0.001). Study was only one month. Further research needed to evaluate reluctance of nurses to do beside handover, as reasons remain unclear.
		White-Trevino et al. (2018) conducted an observational study on bedside shift handoff using SBAR-T format. Compliance rate of beside handoff was 92% (12 out of 13 observations). Patient satisfaction scores improved and nurse perception also improved.	C, study was limited to one unit in one hospital, which limits generalizability to other settings. There was no randomization, control group, or power analysis reported to determine adequacy of sample size. Several limitations include sampling bias, which may be present since observations were all done at night shift change and did not include all shift changes. Observations consisted of a small sampling of handoff observations. The Hawthorne effect may have influenced the success of the project as the chief nursing officer did all the observations. The electronic online nurse survey was created with the assistance of a local statistician and was not a validated tool. The project duration was three months, more time is needed to adequately monitor the effect of practice change.
		Summary: All four studies, Achrekar et al. (2016), McAllen et al. (2018), Malfait et al. (2018), and White-Trevino et al. (2018), found that using a standardized handoff with an SBAR or modified SBAR format showed an increase in nurse compliance of conducting shift handoff at the bedside. The studies by Achrekar et al. (2016), McAllen et al. (2018), and White Trevino et al. (2018) also found that nurse perception or satisfaction on BSR improved. The study by McAllen et al. (2018) showed decreased patient falls, a secondary outcome measure, that was statistically significant.	**Summary:** Three of the four studies, Achrekar et al. (2016), McAllen et al. (2018), and White-Trevino et al. (2018) were level C studies. No control group or power analysis reported in any of studies. Achrekar et al. (2016), McAllen et al. (2018), and White-Trevino et al. (2018) had a small sample size threatening generalizability. Two of studies, Achrekar et al. (2016) and Malfait et al. (2018) had high inter-rater reliability for auditing BSR, which was a strength of those studies. Despite the lack of an abundance of high quality studies of a standardized handover tool at the bedside, these four studies provide reasonably consistent evidence in support of the practice change.

Rating Scale for Quality of Evidence (Newhouse)		
High (A)	Scientific	Consistent results with sufficient sample size, adequate control, and definitive conclusions; consistent recommendations based on extensive literature review that includes thoughtful reference to scientific evidence
	Summative Review	Well-defined, reproducible search strategies; consistent results with sufficient numbers of well-defined studies; criteria-based evaluation of overall scientific strength and quality of included studies; definitive conclusions
	Experiential	Expertise is clearly evident
Good (B)	Scientific	Reasonably consistent results, sufficient sample size, some control, with fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence
	Summative Review	Reasonably thorough and appropriate search; reasonably consistent results with sufficient numbers of well-defined studies; evaluation of strengths and limitations of included studies; fairly definitive conclusions.
	Experiential	Expertise seems to be credible.
Low Quality (C)	Scientific	Little evidence with inconsistent results, insufficient sample size, conclusions cannot be drawn
	Summative Review	Undefined, poorly defined, or limited search strategies; insufficient evidence with inconsistent results; conclusions cannot be drawn
	Experiential	Expertise is not discernable or is dubious

Newhouse, R. (2006). Examining the source for evidence-based nursing practice. *The Journal of Nursing Administration. 36*(7/8), 337-340. doi:10.1097/00005110-200607000-00001

Appendix B

AHRQ Bedside Shift Report Checklist

Bedside Shift Report Checklist

☐ Introduce the nursing staff to the patient and family. Invite the patient and family to take part in the bedside shift report.

☐ Open the medical record or access the electronic work station in the patient's room.

☐ Conduct a verbal SBAR report with the patient and family. Use words that the patient and family can understand.

> **S** = **Situation**. What is going on with the patient? What are the current vital signs?
>
> **B** = **Background**. What is the pertinent patient history?
>
> **A** = **Assessment**. What is the patient's problem now?
>
> **R** = **Recommendation**. What does the patient need?

☐ Conduct a focused assessment of the patient and a safety assessment of the room.

- Visually inspect all wounds, incisions, drains, IV sites, IV tubings, catheters, etc.

- Visually sweep the room for any physical safety concerns.

☐ Review tasks that need to be done, such as:

- Labs or tests needed

- Medications administered

- Forms that need to be completed (e.g., admission, patient intake, vaccination, allergy review, etc.

- Other tasks: _____

☐ Identify the patient's and family's needs or concerns.

- Ask the patient and family:
  - *"What could have gone better during the last 12 hours?"*
  - *"Tell us how your pain is."*
  - *"Tell us how much you walked today."*
  - *"Do you have any concerns about safety?'*
  - *"Do you have any worries you would like to share?"*

- Ask the patient and family what the goal is for the next shift. This is the patient's goal — not the nursing staff's goal for the patient.
  - *"What do you want to happen during the next 12 hours?"*
  - Follow up to see if the goal was met during the verbal SBAR at the next bedside shift report.

Adapted from the Emory University Bedside Shift Report Bundle.

Appendix C

Bedside Shift Report Staff Training Checklist

Bedside Shift Report Staff Training Checklist				
Nurse	Received BSR Checklist Pocket Guide	Direct Instruction Date Completed	Guided Instruction Date Completed	Independent Practice Date Completed

Appendix D

Bedside Shift Report Audit Form

			Bedside Shift Report Audit Form						
Week #			**Sun**	**Mon**	**Tue**	**Wed**	**Thur**	**Fri**	**Sat**
Room #	**Admission Date**	**Discharge Date**	**BSR (y/n) AM/PM**	**BSR (y/n) AM/PM**	**BSR (y/n) AM/PM**	**BSR (y/n) AM/PM**	**BSR (y/n) AM/PM**	**BSR (y/n) AM/PM**	**BSR (y/n) AM/PM**