Spring 4-26-2020

Bedside Shift Report Improves Patient Safety

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A Paper Submitted in Partial Fulfillment of the Requirements

For NURS 5382

In the School of Nursing

The University of Texas at Tyler

by

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April 19, 2020

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Executive Summary

In the inpatient setting, Parkland Health & Hospital System has continued to have patient falls with injury above the target goal of 0.43 falls with injury per 1,000 patient days. This occurred every month throughout 2019. Additionally, multiple egregious IV medication administration errors occurred in 2019 related to nurses bypassing established safety practices. Both patient falls and medication administration errors are being addressed individually by the institution through the implementation of a more evidence-based falls program and a medication management workgroup.

However, an evaluation of evidence-based literature reveals that the practice of bedside shift report (BSR) leads to a reduction in both patient falls and medication administration errors. Indeed, BSR is evidence-based practice (EBP) that promotes an overall environment of safety, quality care, and improved communication between nurses and patients. Additionally, there is virtually no risk or increased cost of making this practice change as the process of shift report between nurses already exists. It simply changes the location of an existing process and involves the patient in his or her own plan of care, which is at the heart of nursing.

Rationale

As already noted, falls with injury and medication errors exist at a rate that is not within this organization's targeted goals. The rationale for this project is simply that BSR is EBP with the ability to decrease patient falls with injury and medication errors. Although not items to be fully evaluated within the scope of this project, evidence also exists showing that BSR improves communication, patient satisfaction, and other safety issues as well. By performing shift report at the bedside, the oncoming and off-going nurses can visualize both the patient and

the room to perform patient and environment safety checks that prevent and/or catch safety issues such infiltrated IVs, medication pump errors, pressure injuries, environmental factors that may lead to a fall, etc.

In 2017, The Joint Commission published Sentinel Event Alert 58 on inadequate hand-off communication (The Joint Commission, 2017). This alert actually assumes that the handoff involves the oncoming nurse, off-going nurse and the patient. By performing shift report in the hallway instead of at the bedside, the patient is eliminated from participating in the conversation. Additionally, shift report performed in the hallway removes the oncoming and off-going nurses' ability to visualize the patient during report. Changing to a BSR process addresses both issues and creates an opportunity to decrease miscommunication by promoting an environment emphasizing patient safety (Maxson, Derby, Wrobleski, & Foss, 2012).

Literature Synthesis

Many studies support the benefits of changing practice to BSR. One of the systematic reviews does mention that the published literature remains anecdotal in nature, but due to the immense potential benefits and relative low risk in such a practice change, it does support making such a change (Sherman, Sand-Jacklin, & Johnson, 2013). Since this systematic review was published in 2013 there have been numerous more recent studies that continue to support this change as well. The studies referenced below provide clear and substantive evidence to support the need for BSR. Many of them specifically reference the ability of BSR to decrease patient falls and/or medication errors.

The Agency for Healthcare Research and Quality (AHRQ, 2017) developed a handbook that provides an overview of and a rationale for the implementation of BSR. It additionally provides educational tools to aid in implementation and addresses common barriers or challenges

to BSR. This handbook was developed utilizing the evidence from numerous case studies and quality improvement (QI) projects. The handbook states that BSR can improve patient safety and quality. It gives an example from a QI project that reduced patient falls during shift change from one to two falls a month to one fall in six months (Athwal, Fields, & Wagnell, 2009, as cited in AHRQ, 2017).

Another evidence-based QI project occurred in a 532-bed, acute care teaching hospital where patient fall rates were above the national average (McAllen, Stephens, Swanson-Biearman, Kerr, & Whiteman, 2018). An evaluation of the data occurred four months post-implementation of BSR and revealed a 24% reduction in patient falls compared to pre-implementation falls (McAllen et al., 2018). In addition to patient fall reduction, this article also noted that although it did not evaluate medication error reporting as part of the project evaluation measures, BSR uncovered and mitigated this issue. “Nurses mentioned discovery of intravenous fluid concerns and possible medication inaccuracies during BSR” (McAllen et al., 2018, p. 9). This study recommended future studies explore medication safety related to the implementation of BSR.

Rogers, Li, Clements, Casperson, and Sifri (2017) arrived at similar results in their unit-based, QI project. The project results showed an 80% (from 5 to 1) reduction in medication errors related to shift report communication and a 100% (2 to 0) reduction in patient falls (Rogers et al., 2017). A separate cohort study found at three months post-implementation of BSR that both patient falls at shift change and medication errors were reduced across seven medical-surgical units in a large hospital setting (Sand-Jecklin & Sherman, 2014). One additional study found similar results with decreased falls with injury and medication errors, though it could not

determine whether these improvements were primarily from the implementation of BSR or from other safety initiatives (Taylor, 2015).

Regarding the patient's perspective on BSR, one QI study quoted a patient's response that "it was nice to witness the handoff and it minimized confusions and/or conflicting messages that may otherwise have come my way" (Maxson et al., 2012, p. 143). Miscommunication is a major variable leading to patient safety issues. In addition to this QI study, a systematic literature review reinforced this perspective. It stated that BSR not only presents opportunities to reduce medication errors but also ensures improved communication between nurses and patients (Gregory, Tan, Tilrico, Edwardson, & Gamm, 2014). One final study looking at communication related to BSR revealed a positive correlation between BSR and Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores (Chapman, Schweickert, Swango-Wilson, Aboul-Enein, & Heyman, 2016). One element of HCAHPS scores measures the patient's satisfaction with the nurses' level of communication, specifically related to respect (Chapman et al., 2016).

Several other studies were included in this literature synthesis as they provided evidence for BSR implementation from an overall patient safety perspective. In one QI project on a Medical-Surgical Cardiology Unit, one positive outcome of BSR was the visualization of the patient where both nurses identified "infiltrated IVs, IV infusions low on fluid, and chest tube drainage devices needing repositioning during the nurse-to-nurse bedside report" (Caruso, 2007, p. 21). A different QI project on another medical-surgical unit provided positive examples of BSR where the rapid response team was notified promptly during BSR due to the patient's condition changing from the nurse saw the patient (Evans, Grunawalt, McClish, Wood, & Friese, 2012). One final case study worth noting describes an event similar to the above events that

highlights the importance of BSR as EBP that advocates for the patient's safety (Sadule-Rios et al., 2017). As shown clearly in these three studies, without BSR a change in a patient's condition may likely go unnoticed until much later. This literature synthesis provides substantive evidence supporting the clear need for BSR.

Stakeholders

When planning any project involving a practice change, it is critical to consider all stakeholders and involve them in the project. In this project there are layers of stakeholders from those directly involved in the in the planning, implementation, and evaluation of the project to those that may be affected but simply need clear communication as to how it will affect them and their role in the practice change. The key stakeholders of this project include a group of bedside nursing staff from a couple shared governance councils that will be tasked with creating an educational video demonstrating BSR and reinforcing its importance on the units.

The next layer is nurse preceptors as BSR is now an initial competency for all nursing staff and preceptors will be key to ensure that it is practiced correctly. The final layer includes both nursing leadership from an accountability and sustainability perspective and support staff such as Patient Care Assistants (PCAs). It will be incumbent upon nurse managers, directors, and even VPs to round on units and ensure BSR is consistently practiced. Despite the simple concept of BSR, this organization has educated staff on it and attempted to implement it numerous times without successfully sustaining it long-term across the organization. PCAs are also critical to the sustainability of the project as they must partner with the nursing staff to ensure the success of BSR. PCAs can assist during shift change by answering patient call lights of a nonemergent nature as well as ensuring patients are prepared for shift change so that nursing staff is not interrupted to assist patients to the restroom, obtain water/ice, etc. Lastly, and possibly most

importantly, the patient is a stakeholder. Discussing the purpose and process of BSR from admission is critical to this being a success. Patient involvement in their own plan of care is at the core of nursing practice and nurses must invite the patient into the BSR process.

Planned Evaluation

The steps to this evaluation plan begin with collecting baseline data. Inpatient units have averaged greater than 0.43 falls with injury per 1000 patient days every month throughout 2019. This type of baseline data will need to be collected related to the number of medication errors connected to the medication pump between 6-9am/pm as well. Ideally the evaluation plan will look like obtaining the number of patient falls with injury and the number of medication errors connected to the medication pump during and around shift changes from each inpatient unit. This will then be averaged and analyzed prior to implementation, 3 months post-implementation, 6 months post-implementation, and 1-year post-implementation. Thankfully the data already exists. It is simply a matter of obtaining it.

However, there are a myriad of projects in progress that will also affect this data making it difficult to determine whether BSR was the primary cause. In order to evaluate BSR itself, data must also be collected showing that BSR is being practiced consistently across the organization. This will occur through observational audits by unit leaders visualizing nursing staff performing BSR at shift change. Ideally, it will also include periodically asking patients if BSR occurred and if the patient has any feedback.

Timetable/Flowchart

Towards the end of 2017 and beginning of 2018 I helped lead the educational rollout of BSR. This included creating an elearning module for all nurses to complete as well as an annual competency for 2018. Unfortunately, opportunities remain for sustaining BSR. In order to

effectively reestablish BSR, an evidence-based competency checklist (see Appendix A) will be utilized rather than the home-grown checklist. The next step will be to collaborate with specific shared governance councils to establish a core group responsible for creating a short video demonstrating how to perform BSR. Once the video is created, it can be embedded in the existing onboarding module that trains newly hired nurses on BSR.

Once the educational items are addressed, broad communication will need to occur. This will include sharing the video and a brief presentation at various shared-governance councils. The video can also be emailed out to all Parkland nurses, posted on the Clinical Education website in the form of microlearning, as well as be posted on units hopefully with a QR code to allow ease of access. Lastly, bedside nurses need to be held accountable to maintain this evidence-based practice. This will necessitate presenting in the VPN Council and garnering support from leaders that they will round on their units to ensure BSR is sustained. Due to the heightened organizational needs related to the coronavirus, the timeline of this project had to be delayed (see Appendix B).

Data Collection Methods

Data showing whether or not BSR is being performed will be collected at the unit level by unit nursing leadership. The BSR competency checklist (see Appendix A) can be used as an audit tool to assess whether BSR occurred correctly. These audits will be performed temporarily until unit leadership feels confident that the practice will continue. Separately, data showing patient falls with injury as well as medication administration errors are already collected in an internal database. Further discussion will need to take place with a data analyst to narrow the date to the timeframe near and around shift change, preferably between 6-9am/pm.

Cost/Benefit Discussion

As a reminder from the executive summary, there is virtually no risk or increased cost associated with making this practice change as the process of shift report between nurses already exists. This practice change simply moves the location of shift report and involves the patient in the process. The expected cost associated with BSR is that of staff time spent creating educational material and championing the change on the units. The core nursing team tasked with developing an educational video will include roughly five nurses and an educator. Creating a script will take approximately three hours. The resources to film the video will include one to two educators, two bedside nurses, a PCA, and a videographer. This process will take approximately two hours. If the hourly rate is overestimated at $40 per hour, the cost of creating a script is roughly $720 and the cost to film is roughly $480. This puts the educational cost at approximately $1200. Considering that in 2012, just one patient fall with injury would cost on average $34,294 to a hospital, the cost of implementing BSR pales in comparison to the tremendous potential benefit (The Johns Hopkins University, 2015).

Overall Discussion/Recommendations

The importance of evidence-based practice like BSR cannot be overemphasized. For example, by performing BSR and involving the patient in creating care plan goals for the day, when a patient wants to ambulate but needs assistance, this need for assistance was likely discussed at shift change by the oncoming nurse, off-going nurse, and the patient. This basic level of communication can be enough to prevent a patient from falling. However, there is still value in performing BSR even when the patient is unable to interact. In cases where an incorrect medication is delivered via a medication pump, the oncoming nurse has the opportunity to visualize and catch this error and the off-going nurse may be the only individual aware of how

long the incorrect medication was administered. This information is critical in knowing how to appropriately intervene on the patient's behalf.

In terms for recommended next steps, BSR will continue to go through PDSA cycles. It went through the first cycle at the end of 2017 and into 2018. The outline seen in Appendix B is the second cycle. Despite ensuring newly onboarded staff are educated and competent on BSR so that turnover does not disrupt the effectiveness of this practice, periodic monitoring of BSR will need to continue for some time to ensure sustainability. However, there is cause for optimism. At one point in nursing's history, oncoming nurses received report via a recording by the off-going nurses but had no ability to ask questions or get further clarification. In the same way, shift report in the hallway will soon be a thing of the past, replaced by BSR.

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Appendix A

Bedside Shift Report Competency Checklist

Standard Met/Initials	Competency Areas
	Procedure
	1. Perform hand hygiene according to facility protocol
	2. Don personal protective equipment (PPE), if indicated
	3. Identify the patient according to facility protocol
	4. Establish privacy
	5. Introduce self and explain procedure
	6. Present the patient hand-off to the receiving nurse including the identification of staff members, including professional title and role in the patient's care
	7. Include the patient's name, age, gender, diagnosis, room, bed location, allergies, and special needs
	8. Identify the patient's code status and whether advance directives have been executed
	9. Include a problem list and distinguishing characteristics of the patient's condition, including recent changes
	10. Provide a "to-do" list or the next steps in treatment or plan of care as indicated in facility protocol or clinician orders
	11. Advise when the results of any pending laboratory tests or diagnostic procedures will likely become available
	12. Disclose whether the receiving nurse is responsible for any follow-up testing or procedures
	13. Include information about the patient's psychosocial needs and social support system
	14. Provide an opportunity for the receiving nurse to ask questions and clarify information
	15. Verify that the information is understood by the receiving nurse
	16. Follow the facility/unit-specific protocol to use a written form or checklist when presenting the patient hand-off
	17. Promote effective and efficient communication during the hand-off
	18. Use clear, unambiguous language and avoid undefined terms, jargon, and abbreviations
	19. Keep the report patient-centered, concise, and accurate
	20. Limit outside interruptions
	21. Ask interactive questions
	22. Confirm a common understanding
	23. Allow sufficient time to communicate or to record the report
	22. Dispose of used materials
	23. Remove PPE
	24. Perform hand hygiene according to facility protocol
	25. Update plan of care and document

Appendix B

Bedside Shift Report Flowchart