Near Miss Reporting: An Educational Program

William Strub
St. John Fisher University

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Near Miss Reporting: An Educational Program

Abstract
In October 2007, the Medicare system contemplated future introduction of a new policy, which would no longer pay for eight preventable medical errors. With this potential new change in policy it becomes increasingly more important for health care institutions to monitor (track) medical errors and determine what measures can be taken proactively to prevent the occurrence of errors. The errors that might not be financially reimbursed under Medicare in the future include: - Sponges and/or surgical tools left in patients after surgery - Treatment of problems arising from air embolisms or incompatible blood transfusions - Treatment of bedsores developed while in the hospital - Injuries caused by hospital falls - Infections arising from prolonged use of urinary and vascular catheters - Infection after coronary artery bypass surgery (Brooks, 2007) It is thought that other insurers will follow suit in cutting back reimbursement based on these same standards. Questions arise when considering these changes: what is a medical error? Why is it important to track medical errors, and how can health care providers increase medical error reporting? The purpose of this project was the development of an educational program to educate healthcare workers on patient safety and the importance of how, when and why to report near miss errors.

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Near Miss Reporting:

An Educational Program

By

William Strub RN/RRT, BSN

Submitted in partial fulfillment of the requirements for the degree

Master’s in Advanced Practice Nursing

Supervised by

Dr. Christine Nelson-Tuttle

Wegman’s School of Nursing

St. John Fisher College

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Introduction

In October 2007, the Medicare system contemplated future introduction of a new policy, which would no longer pay for eight preventable medical errors. With this potential new change in policy it becomes increasingly more important for health care institutions to monitor (track) medical errors and determine what measures can be taken proactively to prevent the occurrence of errors. The errors that might not be financially reimbursed under Medicare in the future include:

- Sponges and/or surgical tools left in patients after surgery
- Treatment of problems arising from air embolisms or incompatible blood transfusions
- Treatment of bedsores developed while in the hospital
- Injuries caused by hospital falls
- Infections arising from prolonged use of urinary and vascular catheters
- Infection after coronary artery bypass surgery (Brooks, 2007)

It is thought that other insurers will follow suit in cutting back reimbursement based on these same standards. Questions arise when considering these changes: what is a medical error? Why is it important to track medical errors, and how can health care providers increase medical error reporting?

The purpose of this project was the development of an educational program to educate healthcare workers on patient safety and the importance of how, when and why to report near miss errors.
Background

Health care providers reporting medical errors need to be able to differentiate the different types of errors and understand the important role this surveillance plays in improving health care outcomes. The Institute of Medicine (IOM) defines a medical error as “failure to complete a planned action as intended or the use of a wrong plan to achieve an aim.” An adverse event is defined as “any injury caused by medical management rather than by the underlying disease or condition of the patient” (Migdail, 2000).

Medical errors can include:

- Diagnostics resulting in wrong diagnosis, failure to react to abnormal lab values
- Equipment failure
- Infections, nosocomial and post surgical
- Blood transfusion, wrong blood to patient
- Misinterpretation of medical orders

Adverse events are differentiated as preventable and unpreventable. An example of a preventable error would be giving a drug to a patient who is known to have an allergy to that medication, which causes them to go into anaphylactic shock and death. An unpreventable event would include risks associated with treatments.

Understanding terminology is important in that it allows the reporter to evaluate situations and see how it applies as a reportable error. Another term that has become important when reporting errors is the phenomenon of a “near miss.” The Joint Commission defines a near miss as a “process variation which did not affect the outcome
but for which a recurrence carries a significant chance of a serious outcome”. Near
misses are reportable errors. (Morrell, 2001)

The importance of reporting medical errors is noted in a recent report release in
2006 from the IOM. In this report, “Preventing Medication Errors”, the following
statistics were offered:

- 1.5 million people are affected by adverse drug events (ADEs) each year.
- Hospitals average one medication error per patient per day.
- A single preventable ADE adds approximately $5,857 to each hospital stay,

for an annual cost of $3.5 billion in 2006 (Anonymous, 2006).

If hospitals are going to be held financially responsible for picking up the cost of their
errors, then hospitals must be more effective in monitoring all errors implicated in patient
care. It is important to note that the IOM document looked only at medication errors and
specifically the process between and including from the writing of the order to the patient
receiving the medication.

In the health care setting; the nurse is ultimately the last stop before a patient
receives a medication, and with knowledge of this crucial event, the Joint Commission
looked at five critical risk points in the process of medication use:

1. Selection, procurement, and storage
2. Prescribing, ordering and transcribing
3. Preparing and dispensing
4. Administering
5. Monitoring (Lassetter & Warnick, 2003)
The nurse is involved from transcribing the order to monitoring the patient after administration. If an error occurs in any one of these steps it needs to be reported as an error by the nurse. The errors may seem elementary to the nurse, yet these errors provide information in helping to prevent further errors and to develop new processes in preventing the error from repeatedly occurring again. It is believed that the lack of information in reporting any errors throughout the entire process may be linked to the amount of harm (actual or potential) to the patient and/or the fear of being held accountable for the mistake by the nurse.

When evaluating the literature on medical errors, pertinent literature focuses on reporting significant factors in the process of medication errors. Nurses do the majority of error reporting but may only report one of many errors that occur in the shift or none at all. It also may be noted that the lack of knowledge on what needs to be reported and how to correctly navigate the process for reporting errors may be problematic. Lastly, fear that reporting an error could lead to punitive damage not only for the person responsible for the error, but also the person reporting the error, may contribute to the lack of reporting.

A literature-focused research on medical errors revealed that the first step necessary to reduce errors is to increase the reporting of all types of errors.

**Purpose**

This paper reports on an educational program with the purpose of educating healthcare workers on patient safety and the importance of how, when and why to report near miss errors. With the 2010 Patient Safety Goals for hospitals set forth by the Joint Commission as a guide, it is clear that every hospital employee plays an important part in
trying to meet these goals. In order to meet these goals, healthcare institutions need to review their process of care. Improved patient safety can be done through the use of near miss reporting.

It is necessary to educate hospital staff on the use of near misses to help strengthen the hospital policies and procedures and periodically review the process for reporting. It is noted in some healthcare facilities that near miss reporting is used only to report medication errors, where it should be used for many more types of errors in the health care settings. The need to educate staff on what near misses are and how the reporting of the miss is used could lead to more usable information on process issues in delivering care.

This project focused on the development of an educational program for health care staff based on the Joint Commission 2010 Patient Safety Goals. It is necessary to inform staff of what to focus on when looking to increase patient safety. All the care and activities that occur in a hospital can affect patient safety. Use of the 2010 Goals for patient safety education can assist staff in improving patient care. It is also important to show how preventable errors affect cost of care. The program reviewed the implications of selected studies that demonstrate related costs that insurers incurred from preventable medical errors. It is important to relate this process to the staff, as the hospitals will soon be responsible for these costs. Being able to relate cost to staff and assisting them in realizing the importance of preventing medical errors, may motivate staff to desire appropriate education on the importance of reporting safety concerns.

The last part of the program reviewed different types of medical errors, especially near miss reporting, and how these types of errors are used for further education. The
need to make staff aware of near miss reporting is believed to be more important than the actual medical errors that do occur. Near misses occur at a rate 300 more times than medical errors and offer more data points to look at for potential improvements in the process of care. (Barach & Small, 2000)

**HYPOTHESIS**

Research supports that providing continued education for nurses increases their knowledge of selected topics, and improves patient care (Ommen, Meerwijk, Kars, Elburg, & Meijel, 2009). While not being tested in this program, it is hypothesized that with the completion of a PowerPoint educational program on near miss reporting specifically providing knowledge of the different types of medical errors will increase health care provider’s knowledge regarding near miss reporting and the importance of reporting. It is further hypothesized that this enhanced knowledge will result in an increased and more consistent use of the near miss reporting system to improve the quality and safety of care for patients. These outcomes were not directly measured in this study due to long term nature of data.

**Theoretical Framework**

In order to be successful at developing a teaching program for adults, educators should utilize a theory that respects these learners and recognizes the value of experience in learning (Lieb, 1991). Knowles’ Adult Learning Theory was used to support the framework of this program as this theory addresses five main principles of how adult learners learn best. The five principles are: self-concept, experience, readiness to learn, orientation to learning, and motivation to learn (Smith, 2002). Knowles stated, “as individuals mature, their need and capacity to be self-directing, to utilize [life] experience
in learning, to identify their own readiness to learn, and to organize learning around life problems increases steadily [to adulthood]” (Knowles, 1990, p.55). This theory supports the concept that adult learners are more motivated to learn with an incentive and that this learning needs to be applicable to their work.

The principle of self-concept suggests that as an individual matures, their attitude switches from one of being a dependant personality to one of being self-directed (Smith, 2002). Adults are autonomous and learn from topics of interests. Adults accumulate their foundation of knowledge from life experience as they mature. This principle of experience suggests that as an individual matures, their experiences become an increased resource for learning (Smith, 2002). Adults’ readiness to learn becomes oriented increasingly to the developmental tasks of their social roles, and they often approach learning as problem solving. Orientation to learning suggests that adults learn best when the topic is of relevant value. The concepts must be related to a setting familiar to participants (Lieb, 1991). Lastly, as a person matures, motivation to learn becomes personal (Smith, 2002).

Since this program was designed for healthcare workers, the program was designed with the idea of flexible learning. The two venues used to test this educational program were Nursing Grand Rounds located in Thompson Community Hospital, and a self learning website design presenting a PowerPoint presentation and podcast to other healthcare workers who do not work within the Thompson setting. Using these two different venues allowed the learner to choose where they would like to learn about the topic, either at the hospital in a controlled setting, or at home, at their own pace.
Research Technique

When researching the topic of medical errors, the following databases were used to look at literature from 2002 to present, MEDLINE, CINHAL (Nursing and Allied Literature), Cochrane, and ProQuest Nursing Journals. While there were many articles found on medical errors (greater than 30,000), when narrowing down to the topic of interest for this paper, reporting of medical errors literature was under 1,000 depending on what type of reporting was being looked at. To additionally limit the search, the year of publication was reassessed and the topic of choice was focused on reporting errors with no consequences.

In the final literature reviewed for this project was restricted to studies published between the years of 2004 to 2008. The five topic areas of literature used as a basis for this project focused on: factors effecting medical error reporting, in relation to knowledge, method, anonymity, and non-punitive action pertaining to medical error reporting.

Literature Review

In 2004, the Joint Commission Journal on Quality and Safety published a study by Jeffe, et al. This study consisted of staff nurses, nurse managers, and physicians from various academic and community hospitals in Missouri and Illinois who were selected based on experience and area of practice. The study was a qualitative analysis focused on gaining insight from workers’ perspectives about key concepts and issues regarding
medical error reporting in hospitals as well as what could be done to change the existing issues surrounding error reporting. The groups were asked the same questions and responses were recorded and analyzed by the researchers. (Jeffe, et al., 2004)

This study found six barriers consistent in the study groups when it came to reporting medical errors. The groups also suggested potential ways to correct these barriers:

1) Not knowing what to report, corrective action, to develop clear guidelines for what to report.

2) Not knowing how to report, corrective action, to clarify reporting mechanisms and train health care providers (especially physicians) to use them.

3) Fear of repercussions (culture of blame), corrective action, non-accusatory, mentoring/collegial environment.

4) Lack of confidentiality, corrective action, anonymous reporting mechanisms.

5) Lack of time and ease of systems for reporting, corrective action, sufficient personnel and efficient reporting tools.

6) Lack of follow-up, corrective action, routine follow-up of error reports for educational purposes and to show that hospitals will act on error reports.

The findings in this study demonstrate a need for health care institutions to review their process of staff education and communication of medical errors to staff. The study provided suggestions of how to remove some of the existing barriers and at the same time discussion among the groups found that providing evidence of how information of error reporting affects outcomes or hospital process would be beneficial. This lack of feedback provides a full circle view of why error reporting is not viewed as an important part of
patient care. Overall findings in this study could not be applied to all institutions as this study focused on a certain area of the country and may not be applicable to all. This study does provide the suggestion to increase medical error reporting. (Jeffe, et al., 2004)

Potylycki, et al. (2006), conducted a three-year educational initiative in a Pennsylvania hospital in the time period around a change in practice in regards to its policies on educating and dealing with medication errors. Data was collected before and after the initiative to determine how the culture of medical error reporting would change with knowledge of the existing system of reporting and the incidence of reporting. It was determined that if the staff understood that there would be no punishment attached to reporting, they were more compliant, and a significant increase in the number of reported errors was noted.

For this initiative, the primary barrier identified to reporting medication errors was staff perceptions that reporting an error carries a risk of disciplinary action. This concept was based on previous changes that had occurred in the system. The concept thought was that through education and a cultural change of new and existing staff based on the new initiative, the hospital would see a change in error reporting. It was determined that the newer staff would have no problem reporting a medication error or near miss where as the older staff, even though there was an understanding of the changes occurring in the system, would report the more serious errors and the near misses would be discussed with the person involved without following the official reporting process. (Potylycki, et al., 2006)

This three year educational initiative found that change was easier made with the newer staff, but it took a longer period of time for the more experienced staff to become
comfortable and compliant with the new procedures. The authors recommended caution in generalizing their findings since this study was based in one hospital and is not predictive of how other institutions might respond using the same initiative.

In a 2007 article Harris, et al. reviewed the use of a card reporting system known as SAFE to determine its impact on medical error reporting. The study addressed the barriers of time, ease and comfort of reporting. This study was conducted in one hospital among the three different intensive care units where staff was educated on the new reporting system. The simple 10-question card design took under 5 minutes to fill out by hand and did not require use of a computer. The study found that the reporting of medical errors increased with this system and that the card system offered benefits to the reporter that may not have been available with the conventional computer reporting system. This study concluded that:

1) A simple system of reporting and education on how/what to report can have a positive impact on increasing medical error reporting.

2) Anonymity may not play a part in reporting medical errors, as was demonstrated with the card system.

3) Either or both name and position could be found when reporting the error.

4) Physicians where 25 times more likely to use this card system versus a computer based system. (Harris, etal., 2007)

The SAFE card system positively impacted the place of study by bringing about change in the computer reporting system to be more consistent with the SAFE card format. One unit participating found that the impact of having a paper system to do reporting was more effective than a computer system even when it came to having
someone correlate the data. However, when the computer reporting system was reinstated with the new design it was found that one third of the reports had no name or position entered. This implied that there continued to be staff concerns regarding anonymity and comfort in the reporting process for this institution.

Conerly (2007) published a case study depicting one hospital’s attempt to change the culture in regards to how it perceives medical errors. The author discussed how a hospital turned reporting of adverse events and near misses into a more personalized system approach by rewarding and praising staff that reported through personal thank you notes and honoring departments with the highest rate of participation. This initiative provided support and information for the employees to correct the practices leading to errors while providing the institution with important data. These changes in the process of error reporting and employee support resulted in a two-fold increase in error reporting from before the study was implemented.

The overall goal of this change was to move away from a “culture of blame” that seems to consistently hinder the communication of errors or near misses and create a safe work environment. The program focus presented problems as potential system improvements rather than blaming individuals for the problem. The change in viewing the communication of errors as non-punitive was achieved by open communication, continual education, staff surveys, and ongoing feedback to staff and leadership. These measures helped to remove the barriers to reporting. (Conerly, 2007)

The last piece of literature that provides relevant information regarding the understanding of medical errors and the perception on reporting errors is based on a survey completed by physicians in a teaching hospital. The article by Kaldjian, Jones,
Wu, Forman-Hoffman, Levi and Rosenthal (2008) reports on a study that investigated reporting of actual errors, likelihood of reporting hypothetical errors and attitudes about reporting errors. Attending and resident physicians were asked to respond to questions regarding errors. Findings noted that there would be more reporting of harm causing errors versus errors that produce no harm. It also determined that a minority of those surveyed had actually ever filed an error report. The study linked the lack of reporting an error to the lack of knowledge of how to file a report. The study also found that if the doctor had the knowledge of how to file an error report that there was a 2 to 3 times more likelihood in reporting the hypothetical errors in the study. (Kaldjian, Jones, Wu, Forman-Hoffman, Levi & Rosenthal, 2008)

After reviewing general information regarding near miss reporting and synthesizing several study articles, the author concluded that education is a key facilitator in promoting staff participation in reporting medical errors. The literature demonstrates that there are more than nursing staff involved in recording errors and that an error does not need to actually occur for it to have educational importance. It is also necessary to understand what standards are in place for patient safety and how errors affect patient safety and cost to the healthcare system.

The Joint Commission 2010 Patient Safety Goals that apply to hospitals set the standard for patient safety. The Joint Commission ensures that all healthcare workers are aware of these goals so that specific attention can be focused on meeting and maintaining the goals identified as patient safety issues. Joint Commission has a total of sixteen goals with only eight pertaining to hospitals (goals are number specific to the Joint Commission and those missing do not apply to hospitals). These goals are as follows:
Goal 1 – Improve the accuracy of patient identification.
   A. Use of Two Patient Identifiers
   B. Eliminating Transfusion Errors

Goal 2 – Improve the effectiveness of communication among caregivers.
   Timely Reporting of Critical Tests and Critical Results

Goal 3 – Improve the safety of using medications.
   A. Labeling Medications
   B. Reducing Harm from Anticoagulation Therapy

Goal 7 – Reduce the risk of health care–associated infections.
   A. Meeting Hand Hygiene Guidelines
   B. Preventing Multidrug-Resistant Organism Infections
   C. Preventing Central Line–Associated Blood Stream Infections
   D. Preventing Surgical Site Infections

Goal 8 – Accurately and completely reconcile medications across the continuum of care. *Note: All requirements for Goal 8 are not in effect at this time.*
   A. Comparing Current and Newly Ordered Medications
   B. Communicating Medications to the Next Provider
   C. Providing a Reconciled Medication List to the Patient
   D. Settings in which Medications Are Minimally Used

Goal 9 – Reduce the risk of patient harm resulting from falls.

Goal 14 – Prevent health care–associated pressure ulcers (decubitus ulcers).

Goal 15 – The organization identifies safety risks inherent in its patient population.
A. Identifying Individuals at Risk for Suicide

(National patient safety goals, 2010)

Based on events in healthcare that have affected patient outcomes resulting in deaths or injuries that are deemed preventable, The Joint Commission developed these goals. Understanding these goals and how they can affect patient safety could help healthcare workers provide safer patient environments, while decreasing hospital costs due to these errors.

During the review of the literature, two studies were found that revealed how different mistakes can impact patient outcomes and the cost associated with these mistakes. Linking the financial costs of medical errors to patient outcomes makes the impact of errors in medicine much more real and understandable for the healthcare worker. Two studies found included financial data when discussing medical errors.

One study, from Health Grades an independent health care ratings organization, reviewed 41 million Medicare patients’ records from 2004 to 2006. Specifically, sixteen patient safety indicators were used to review the care of these patients. Findings included:

- Patient safety incidents cost the federal Medicare program $8.8 billion and resulted in 238,337 potentially preventable deaths during 2004 through 2006.
- Top performing hospitals had an average of 43% lower chance of experiencing one or more medical errors compared to the poorest-performing hospitals (top 5% compared to the bottom 5%).
- Medical errors with the highest incidence rates were bedsores, failure to rescue, and post-operative respiratory failure. These accounted for 63.4% of
incidents in the bottom 5%.

- Of 270,491 deaths that occurred in patients who developed one or more patient safety incidents, 238,337 were potentially preventable.

- If all hospitals performed at the level of Distinguished Hospitals for Patient Safety approximately 220,106 patient safety incidents and 37,214 Medicare deaths could have been avoided, saving $2 billion during 2004 to 2006.

(The fifth annual health grades patient safety in American hospitals study, 2008) The second study was done by Agency for Healthcare Research and Quality. This study was based on a nationwide sample of more than 161,000 patients age 18 to 64 in an employer-based health plan, who underwent surgery between 2001 and 2002. This study focused on more specific types of errors and costs associated with medical errors:

- Potentially preventable medical errors that occur during or after surgery may cost employers nearly $1.5 billion a year.

- Insurers paid an additional $28,218 (52% more) and an additional $19,480 (48% more) for surgery patients who experienced acute respiratory failure or postoperative infections, when compared with patients who did not experience either error.

Additional cost for surgery patients who experienced following medical errors compared with those who did not:

- Nursing care associated with medical errors, including pressure ulcers and hip fractures-$12,196 (33% more)

- Metabolic problems associated with medical errors, including kidney failure or uncontrolled blood sugar-$11,797 (32% more)
– Blood clots or other vascular or pulmonary problems associated with medical errors-$7,838 (25% more)
– Wound opening associated with medical errors-$1426 (6% more)

Agency for Healthcare Research and Quality investigators determined that studies that focus on medical errors incurred during the initial hospital stay could underestimate the financial impact of patient safety events by up to 30% (Encinosa & Hellinger, 2008).

**Needs Assessment**

The review of the literature demonstrated that an educational program focused on the medical error reporting process could potentially facilitate the reporting of near misses and increase employee participation in the process of reporting. As a result of informal conversations with healthcare workers at Thompson Community Hospital, it was revealed that many workers were not following the institutional policies on reporting near misses. Reasons for this were varied among the workers. Some did not know how to complete the process. Others did not know when to initiate the process, and many were afraid of ramifications. With the suggested current changes in Medicare funding, careful attention to medical errors and employee education regarding the reporting process may improve compliance.

The 2010 Joint Commission has focused on patient safety for the healthcare institutions, and has publicized benchmarks for healthcare institutions. It is essential that staff members be educated on the need for timeliness in reporting and how to navigate through the reporting process of communicating errors or near misses. As noted in the literature review, hospital staff is frequently reluctant to initiate reporting of errors fearing adverse job security. This program’s intention is to give the healthcare workers
an understanding of patient safety issues and how certain preventable errors impact health outcomes and cost. It is essential that healthcare workers have a basic understanding of near misses, and actions impacting patient safety goals.

**Sample**

The sample population for this program is individuals who work in the healthcare industry. It was not limited to physicians or nurses, but was open to anyone who worked in a healthcare facility. The purpose of this project was to develop a program that would serve all employees within a hospital setting, regardless of varying educational backgrounds. This program wanted to involve all personnel with regards to patient safety and near miss reporting.

That being noted, the program design took into account the impact that all healthcare workers could make by providing information and examples in the most simple and relevant manner as possible.

A PowerPoint presentation was created to relay the important information regarding near misses, and near miss reporting; however there were two different methods the information of this program was delivered. One method of delivery was a face-to-face presentation for healthcare workers participating in nursing grand rounds at Thompson Community Hospital. The alternate method offered participants the opportunity to view the PowerPoint as a podcast at a computer of their choosing.

**Setting**

The hospital setting for one of the two participating groups was Thompson Health Community Hospital in Canandaigua, New York. It is a 113-bed acute care hospital (Appendix A). This venue allowed for a presentation at nursing grand rounds to be
conducted. Nursing grand rounds were developed from the idea of grand rounds, which is where residents present a clinical case, or cases to discuss among fellow residents and attending physicians. This was an important part of residency training wherein new information was presented and clinical reasoning skills were enhanced. Nursing decided to develop its’ own grand rounds for the same reason but to focus on nursing care. Over time these grand rounds have been used to help educate staff on new policies and practices in health care. It is no longer limited to just nursing staff but all staff is permitted and encouraged to come take part. Grand rounds at Thompson occur randomly during the month with there being 2-4 presentations a month. Attendance at Nursing Grand Rounds varies based on topic and hospital work load/meetings.

During grand rounds, an informal presentation was delivered by the researcher allowing for questions and discussion during and after the completion of the program offering. Staff was made aware of this project presentation via hospital email and flyers (Appendix B). The researcher also requested other individuals who work in healthcare, outside of Thompson Hospital, to review the program. This was done by personal request and email. For those who wanted to participate, a computer was available to allow them to view the PowerPoint and/or listen along to the podcast as well. For those who were requested to participate through email, google.doc was used to transfer the program to them.

**Benefits and Risks**

The specific potential ethical considerations of participation in this program varied depending on the venue. It was important that the participants reviewing the program understood that involvement in the study would not have any impact on their
job, and that participation was strictly voluntary (Appendix C). The survey being conducted had no personal questions that would identify the participant. Participation was voluntary and evaluations of the presentation were anonymous. Ten participants at Thompson Health participated in Nursing Grand Rounds, while 12 viewed the PowerPoint/podcast on their own. While all participants worked in a healthcare facility, not all of the participants were employed by Thompson.

The primary researcher had no supervisory responsibilities over any participants and their participation would not impact their current or potential employment or performance evaluation at their respective institutions.

**Educational Program Instructional Design**

The program was developed to educate the learner on varied topics regarding patient safety and the reporting process. It was hoped that the synthesis of this information would improve workers actual adherence to patient safety policies and the reporting process if errors or near misses occur. As discussed in the needs assessment, healthcare is changing, putting the responsibility (cost) of preventable errors back on the healthcare facilities and their workers to prevent them.

Due to the large focus on patient safety in the healthcare environment, it was necessary to create a program that would allow the healthcare workers to have multiple opportunities or venues to learn the material. Nursing grand rounds allowed for a more personal and interactive learning environment through an informal lecture with the power points, which is the more traditional way of learning. Since computers are now more readily available, a PowerPoint presentation and a podcast were also used. This format allowed the learner to view the material at a time that was convenient for them. The
learner was able to choose to review the material at home or in the workplace during breaks, which allowed the learner to have more control of their learning environment.

The podcast was developed to follow along with the PowerPoint (Appendix D). The presenter discussed what was on each slide, and viewers had the opportunity to follow along and listen, or view just the PowerPoint without hearing the podcast. The PowerPoint presentation included relevant information and examples that showed the impact of how medical errors affect costs to the health care system. The presentation took approximately 20-25 minutes to view via podcast facilitated by PowerPoint presentation. Both the presentation at nursing grand rounds and the podcast displayed the same information, however, further discussion occurred during these grand rounds presentations due to being able to present the information in person.

**Method**

The program was available to healthcare workers from October 12 to November 15, 2010. Once the reviewer had completed the presentation they were asked to participate in a survey evaluation of the presentation. Survey Monkey (an online tool to create surveys) was used to develop an eleven-question survey for the reviewer (Appendix E). This survey contained five questions using a Likert scale to assess content, presentation style, and affect on current role in healthcare. Other demographic questions included information regarding role, years in healthcare employment and the method of viewing (grand round attendance, power point/podcast or power point alone). Questions were posed determining the retention of certain information. Participants were asked for recommendations for improvement of the program and their preference of delivery to be used in the planned revision stages of this program development.
The analysis of the survey focused on the demographic data of the participants including years in health care and the role of the participant. Additional data was reviewed on specific feedback regarding the method of delivery of the program. The responses to the Likert scale questions were analyzed by looking at differences among the professions and the methods of program delivery. Data verifying what specific patient safety goals (as recommended by JCAHO) the reviewer retained was also analyzed to determine information retention.

The data was reviewed to examine the potential success of this program directed at education and reporting of actual and near miss errors in patient care. Further analysis focused on which method of delivery was preferred by the participants, but also what method was most effective in obtaining the learning goals. The reviewers were also able to comment on their likes and dislikes of the program and suggested improvements.

**Program Implementation**

The presentation that took place at nursing grand rounds was an informal presentation that allowed for questions and discussion during and after the presentation. Staff members were supplied with a copy of the power points, letter of purpose, and the survey to be handed in at the end of the presentation so the results could be entered. The total time for this presentation was thirty-five minutes.

The podcast/podcast version was done two different ways. Some people were asked to view the presentation on a computer that was set up for them with the program ready to be viewed. Others were emailed the program using google.doc. The google.doc program needed to be downloaded to the computer for viewing. This did require the reviewer to have Microsoft 2008 version or the ability to convert it back to Microsoft
2003. Once they completed viewing the presentation, a link to the survey was provided on the last slide. Again the letter of purpose was communicated to all participants.

Results

The program study was made up of twenty-two participants working in varying jobs in healthcare. Half of the participants had twenty-six plus years experience in healthcare. Of the participants in the program, the majority of those reviewing the program were nurses (13) with the rest of the reviews coming from respiratory therapist (2), CNA/Patient care tech/Unit secretary (2), Advance Practice Nurses (2), and others; which included security and maintenance (3). (Appendix F, Figure A1, A2) The goal was to recruit 30 participants to review the program (72% of goal met). Ten participants came to the presentation at nursing grand rounds, which according to the hospital is an average number. The other twelve participants viewed the presentation via computer. (Appendix F, Figure B1)

Learning Outcomes

To evaluate learning outcomes, five Likert scale questions were reviewed. The Likert scale was based on a 1 through 5 scale ranging from strongly disagree to strongly agree. The questions were reviewed based on healthcare role and how one received the program.

Results

Reviewing the survey questions:

- I was able to understand and follow along with the presenter?
The participants, who have direct patient contact in their job roles, responded with a score of 4 to 5 with the average among the group being 4.59. Forty-one percent (9) agreed that the presentation was easy to follow, while 59% (13) strongly agreed. The non-healthcare workers seemed to have had a more difficult time following along with the presentation with an average score of 4. When comparing the scores made by the participants between the two venues, the average score was 4.59 (range 4.58 PowerPoint/podcast to 4.6 nursing grand rounds). (Appendix F, figure C1, C2)

- **I found this teaching method appropriate to relay this type of information?**

The score was 3.67 to 4.5 with the average at 4.23 by the healthcare workers. Scoring based on the likert scale showed 9.1% (2) were neutral, 59.1% (13) agreed and 31.8% (7) strongly agreed. The participants who were not responsible for direct patient care responsibilities (used to describe them for all questions) non-healthcare members rated this lower at 3.67. The average score between two venues was 4.23 (range 4.17 for PowerPoint/podcast to 4.3 for nursing grand rounds). (Appendix F, figure D1, D2)

- **I found the information presented easy to understand?**

The scores ranged from 4 to 5 by the healthcare workers, with average among the group being 4.55. Forty-five and a half percent (10) agreed and 54.5% (12) strongly agreed. The others rated this lower at 4. The average score of the two venues was 4.55 (range 4.58 PowerPoint/podcast to 4.5 nursing grand rounds). (Appendix F, figure E1, E2)
• I will be able to apply the information presented to my job?

Scores ranged from 4 to 5 from healthcare workers, with the average being 4.45. One person, or 4.5% was neutral, 45.5% (10) agreed, and 50.6% (11 strongly agreed). Similar to before, the non-healthcare workers rated this at a 4. The average score between the two venues was 4.45 (range 4.42 for the PowerPoint/podcast to 4.5 for nursing grand rounds). (Appendix F, figure F1, F2)

• Length of educational program was appropriate?

This scored a 3.67 to 4.5 with the average at 4.27 by the healthcare workers. Nine percent (2) were neutral, 55% (12) agreed 36% (8) strongly agreed. The other category rated this lower at 3.67. The average between the two venues was 4.27 (range 4.17 for PowerPoint/podcast to 4.4 for nursing grand rounds). (Appendix F, figure G1, G2)

• Please list four of the 2010 Patient Safety Goals.

This would have resulted in 88 responses if all were answered. Fourteen participants or 16% did not respond at all to this question. When looking at what goals the participants remembered, Goal 1 (16 %), 9 (16%), and 3 (14%) were the most remembered, with goal 15 (3%) being the least remembered. (Appendix F, figure H1, H2)

Overall, according to the reviews, the program was a success. With greater than 95% of the participants scoring agreed to strongly agreed that the information provided to them could be applied to their job. The material that was presented was easy to understand and follow along with as was seen through the two questions that looked at the presenter and the information itself, both of these scores averaged above 4.5 on the
likert scale, with 100% of the participants either agreeing or strongly agreeing to those questions.

When considering the venues and how the reviewer received the information, the participants who were at nursing grand rounds versus those who viewed the podcast/podcast seemed to evaluate things the same; <.10 difference among the two when it came to understanding and following the material and presenter as well as being able to apply it to one's job. There was a notable difference between the venues in evaluating the length of program and teaching method. Here, the difference between the two is >.10 with nursing grand rounds scoring higher, which indicates participants may have enjoyed that venue more than the podcast (+.13) and when it comes to length, the nursing grand rounds had a more favorable length over the podcast (+.23) even though the program was longer with grand rounds.

The difficulty faced with this type of program was to make the information provided in the presentation readable and understandable on all learning levels. The presenter wanted to relay all the important information without making the presentation too lengthy to avoid the potential of the viewers losing interest. The reviewers found the length of the program to be acceptable for the material; rating it an average of 4.27 on the likert scale (with over 90% of the reviewers responding with agree or strongly agree), and the teaching method was rated at 4.23 (again with over 90% of the reviewers responding with agree or strongly agree). However, reviewing the scores given by the non-healthcare workers, these two questions were scored at an average of 3.67. While the score was above 3, it does give some concern that these employees be more satisfied to receive the information via a different method.
Discussion

The project was developed based on informal questioning regarding near miss reporting among healthcare workers from various healthcare systems. It was concluded that the lack of reporting of medical errors or near misses could be attributed to a lack of knowledge about near miss reporting. Many people did not understand the significance of the errors or near errors and the process of reporting.

Overall, the completion rate for this study was 72%, which is a fair percentage. The most difficult task in the development and evaluation of this program was motivating participation. The nursing grand rounds offered a convenient method for communicating the information to the participants. The participants that attended these sessions had an interest in the topic and had some general knowledge of the information. This made for a more interactive presentation and discussion about the issues of medical error reporting. Participation in the viewing of the PowerPoint/podcast was more labor intensive and required much more effort on the part of the researcher to recruit participants to review the program. First, participants needed to have access to the computer that had the program on it. If they were able to use the computer, reviewing the program would take about 20-25 minutes. However, if the reviewer was to access the program from home, they had to download the program from google.doc, which required a couple minutes to download. Then again, reviewing it took approximately 20-25 minutes. This added time might have discouraged people from taking part in the review. In addition, because this program was not mandatory for staff, the response rate was less than hoped for, although still above average for many surveys among hospital staff.

The information being presented in this program was timely and forth coming for
healthcare systems. With hospitals facing a change in reimbursement based on preventable errors it seemed that the development of a program on this subject was timely and needed.

**Relation to Other Evidence**

The program touched on topics that have been discussed for years. As seen from the literature review, the discussion of near miss reporting, preventable errors, cost to the health care system, parties responsible for errors, and what type of errors there are, has been discussed separately but have not been presented together. This program reviewed all these topics in a convenient PowerPoint presentation/podcast allowing those involved in health care to view, and use as a resource in the future. The program supplied relevant information for today’s healthcare worker that one can utilize in their job setting.

The question of whether or not the information provided is applicable to participants’ current job settings, resulted in one hundred percent of the reviewers choosing agreed or strongly agreed. This corresponds with the study by Potylycki, et al (2006) that used the SAFE cards to educate the staff on how and why to record near misses and medical errors. The SAFE study demonstrated an increase in reported errors based on giving background knowledge, and changing the way errors were recorded. The program being reviewed, can only measure participant’s belief on how the information presented could be applied to their job. It does not measure a change in practice. In the future, the more important question would be how this increased knowledge of patient safety goals, the cost of preventable errors and near miss reporting, translates to increased reporting and improved patient outcomes. To determine this, a
more complex study would be required; involving valid/reliable outcome measures, a control group, and a clear definition of improved patient outcome.

**Limitations**

Some limitations of the program included a lack of knowledge about nursing grand rounds sessions, and healthcare workers being unable to step away from their jobs to attend. The lack of knowledge regarding the Grand Rounds presentation was potentially related to communication. Communication about the presentation could have been improved. People had seen the flyers and email that was sent out, but a reminder email should have been made as well. Another limitation was that only nurses attended the grand rounds, other healthcare professions did not, which limited who received this face-to-face information. The hospital does not allow for outside presentations to be presented using their internal computer system, which also presented a problem. The major limitations to the PowerPoint/podcast presentation was, the inability of participants being able to download the program to the computer and having the compatible software.

**Interpretation**

Overall the outcome was better than expected with twenty-two participants reviewing the program. Many participants provided usable feedback to the presenter. When reviewing recommended modifications to the program (10 of 22 responded) seven out of the ten who responded said to change nothing. The other three reviewers requested a few more examples on how specifically near miss reporting has helped institutions and ideas on how to reach the goal of increasing near miss reporting (possibly by providing an initiative, or positive reinforcement ideas). As for how the presentation of this information could have been improved (12 of 22 responded) participants suggested:
adding more charts/photos to the presentation, decreasing the length of discussion in parts of the podcast or they preferred a live presentation for more interaction. However, many enjoyed having the option of reviewing the program at the hospital, or at home or as just a power point presentation versus a podcast.

To further improve outcomes, the presenter could have taped the live podcast that was done in nursing grand rounds, and incorporated it into the PowerPoint presentation that participants viewed at home. This would have allowed those viewers to hear some of the discussion that went on at grand rounds, hearing more examples, and information that is current within the hospital. Also, viewers would have been able to hear how others were feeling and thinking about this topic. Another idea for those who viewed the podcast is to have an opportunity to have a follow up discussion about what was presented. This would allow for further feedback and discussion.

**Conclusion**

Implementation of this type of program could have a positive impact/outcome on healthcare systems creating discussion on medical error/near miss recording. This program would not only educate healthcare workers, but also give the worker the tools and knowledge they need in order to change care practices in the institution, and provide better care to patients. Giving the worker a sense of empowerment and ownership into the patient care process at their place of employment could increase staff morale, encourage teamwork, and provide safer care to patients. These improvements could prevent costly medical errors and decrease the financial burden on healthcare facilities.
References


References


References


Appendix A

Letters of intent from the Hospital

September 16, 2010

To Whom It May Concern:

This letter is in support Bill Srub’s project that will provide very necessary education for our nursing staff here at FF Thompson Hospital. The educational session will be purely voluntary and will be incorporated into our on-going educational offerings that are held on a regular basis. The Nursing Education Council will assist in coordinating the program. If you have any questions, please direct them to me or to Rebecce Dey, RN, Chair, Nursing Education Council.

Sincerely,

Hazel P. Robertshaw, RN, Ph.D.
Vice President, Patient Care Services / CNO
Appendix B: Flyer for Nursing Grand Rounds.

Nursing Grand Rounds

Tuesday
October 12, 2010
1:30 PM
Walters Conference Room

Topic:
"Patient Safety - The Importance of Near-Miss Reporting"

Speaker
Bill Strub, RRT
Appendix C: Letter for invitation to program

To All Health Care Workers,
Bill Strub RN/RRT a graduate student at SJFC has developed a program to educate staff on Patient Safety, The importance of Near Miss recording. This program is strictly voluntary and will not impact your job performance. The program is in a podcast format on the intranet on Thompson Health or you may attend the grand rounds presentation. This should take about 20 - 25 minutes then there is a post survey for you to review the material presented. Completing this survey will help to know if this type of education is useful and if this type of program is a way to present this information. Any questions please email back to this email address.
Thank you.
Appendix D: Power Point Presentation Slides
Patient Safety: The Importance of Near Miss Reporting

The new focus of health care.

Questions that are put to the staff:

— How are we going to hurt our patients today?

— How can we make our patients safe?

The Purpose of this presentation

• To be able to list the Joint Commissions Patient Safety Goals of 2010 that apply to hospitals.
• To describe the impact of medical errors on the health care system.
• To have a working knowledge of medical error terminology.
• To describe the what, who, why, and when of near misses.
• To describe how near misses are used.

Joint Commissions Patient Safety Goals 2010

• Goal 1: Improve the accuracy of patient identification
  One or both must be used to identify patients:
  • Name and/or medical record number
  • Social security number or driver’s license number

• Goal 2: Improve the effectiveness of communication among caregivers
  Critical test results to the right person.
  • Standard handoff reports shift to shift.
  • Non-threatening work environment.

• Goal 3: Improve the safety of using medications
  Label all medications that are not tampered with.
  • Syringes, cups, and basins.

• Goal 4: Improve the safety of using equipment and devices
  Take care of patients using equipment that is tampered with.

http://www.jointcommissions.org/NR/rdonlyres/2F1C558F-8513-4085-8393-33F9CD39883C/0
Joint Commissions Patient Safety Goals 2010

Goal 1: Reduce the risk of health care associated infections
- Use hand washing guidelines from the Center for Disease Control and Prevention
- Use proven guidelines to prevent infections that are difficult to treat
- Use proven guidelines to prevent bacterial infections from central lines
- Use proven guidelines to treat the part of the body where surgery was done

Goal 2: Accountability and complete respiratory medication awareness across the continuum of care
- Review medication each patient is taking. Make sure it is OK for the patient to take. The nurse asks if the patient will take the medication for the patient who has been discharged. Patient's nurse and doctor a list of medications patient is going to take. Examine all patient and supply the medications

Goal 3: The organization identifies safety risks inherent in its patient population
- Identifying individuals at risk for suicide
- Identifying access to resources
- Increase education of the patient on how to prevent medication errors
- Preventing falls in patients with chronic obstetric and placental disease

Joint Commissions Patient Safety Goals 2010

Goal 4: Prevent health care associated psychoses (delirium, confusion, and delirium)
- Documentation of skin issues on admission to the hospital is immediate, if possible, and nursing’s knowledge is up-to-date in the chart
- Establishing and setting up of clinical descriptors and interventions
- Establishing prioritization of skin issues in order to prevent skin issues

Goal 5: Reduce the risk of patient harm resulting from falls
- Fall prevention, special needs, and head
- Falling

Medical Errors and The Cost Study #1

HealthGrades study of 41 million Medicare patient records from 2004 to 2006:
- Patient safety incidents cost the Medicare program $68.6 billion and resulted in 238,137 potentially preventable deaths during 2004 through 2006.

- Top performing hospitals had an average of 49% lower chance of experiencing one or more medical errors compared to the poorest performing hospitals (Top 1% compared to the bottom 3%).
- Medical errors with the highest incidence rates were fatal errors, failure to rescue, and postoperative respiratory failure. These accounted for 61.6% of incidents in the bottom 1%.
- Of 406,049 deaths that occurred from patients who developed one or more patient safety incidents, 238,137 were potentially preventable.
Medical Errors and The Cost Study #1

- If all hospitals performed at the level of Distinguished Hospitals for Patient Safety, approximately 229,306 patient safety incidents and 37,214 Medicare deaths could have been avoided, saving $2 billion during 2004 to 2006.

Medical Errors and The Cost Study #2

- A nationwide sample of more than 100,000 patients age 18 to 64 in employer-based health plans who underwent surgery between 2005 and 2007.
- Potentially preventable medical errors that occur during or after surgery may cost employers nearly $1.6 billion a year.
- Insurers paid an additional $68,118 (52% more) and an additional $9,480 (46% more) for surgery patients who experienced acute respiratory failure or postoperative infections, when compared with patients who did not experience either error.

Medical Errors and The Cost Study #2 cont’d

- Additional cost for surgery patients who experienced following medical errors compared with those who did not:
  - Surgery time associated with medical errors, including pressure ulcers and postoperative infections.
  - Metabolic problems associated with medical errors, including kidney failure or anemia.
  - Blood loss or other vascular or pulmonary problems associated with medical errors.
  - Blood opening associated with medical errors.

The author of the study also noted that studies that focus on medical errors incurred during the initial hospital stay could underestimate the financial impact of patient safety events by up to 30%.

Medical Errors not covered by Medicare and Medicaid Services

- The errors that will not be covered:
  - Infections and/or surgical tools left in patients after surgery.
  - Infection problems arising from all infections or inoperable blood transfusions.
  - Treatment of larynxes developing while in the hospital.
  - Injuries caused by hospital falls.
  - Infections arising from prolonged use of urinary and vascular catheters.
  - Infection after coronary artery by-pass surgery (Brent, 2001).

Simply put, the hospital is responsible to pay for these errors.
Why is this Important

BECAUSE WE ARE ALL PART OF

A

SAFE

PATIENT

ENVIRONMENT

Medical Error, What is it?

A medical error as defined by the Institute of Medicine in 1999 is “the failure of a planned action to be completed as intended or the use of a wrong plan to achieve an aim”.

Simply put, Medical Errors are:

Errors or mistakes committed by healthcare professionals which result in harm to the patient. They include errors in diagnosis, errors in performance of surgical procedures, or in the use of other types of therapy, in the use of equipment, and in the interpretation of laboratory findings. Medical errors can be differentiated from Malpractice in that the former are regulated as “Incidents” or accidents while the latter is the result of negligence, reprehensible ignorance, or criminal intent.

http://www.hhs.gov/nachp/index.htm

Basic Terminology for Medical Errors

Adverse Event

An unwanted, undesirable, and usually unplanned event, such as death of a patient, an ailment, or an injury, is a health care organization. Examples include patient falls or improper administration of medications are also included.

Serious event

A serious event is an unexpected occurrence involving death or serious physical or psychological injury, or in the risk thereof. Serious injury specifically includes loss of limb or function. The phrase, “serious injury” here also includes “serious adverse event”.

Near Misses:

"A process variation which did not affect the outcome but for which a recurrence carries a significant chance of serious outcomes" (Morrell, 2002).

Simply, an incident was avoided before it reached the patient, visitor, and/or staff member but if it was not noticed could have harmed someone.

Near Misses

- Think of what near misses mean to you.
- Can you come up with examples of near misses?
- Who do they apply to?

Examples of Near Misses

- Transcoding errors of orders
  - Wrong med, timing, route, etc.
- Orders not completed
  - Delay in treatment, orders missed
- Facility equipment
  - Faulty equipment, broken beds, etc. that are in use when observed but no harm to patient
- Inappropriate orders
  - Ordering of meds that patient is allergic to, giving meds before lab results
- Charting errors
  - Incorrect form in patients charts, right med wrong patient
- Work environment
  - Anouch patient assignments (high acuity), aggressive families
  - Lose cancer

The why, who, and when of Near Misses

- Why record near misses: Near misses occur at 300 times more frequently than adverse events. This increase of reporting supplies more data to help prevent processes of care. (Jennett & Jarrett, 2007)
- Who is responsible for reporting: Near miss reporting is everyone’s responsibility as you can see from the examples of near misses. With everyone taking an active part in observing patient and work environment, safety will increase
- When to record near misses: The recording of near misses should occur when it is believed that some harm may come to a patient or staff member. Remember, if you think it can cause harm, management should be aware

How Near Miss Reports are used

- Through near miss reporting more data is available to evaluate processes/system failures
- Root Cause Analysis: Is a process for identifying the causal factors involved in an event. The root cause is the most basic reason for the failure or inefficiency of the process that causes the event to occur
  - The focus of the analysis is at system/processes not individuals
  - Near miss reports are not used as punitive, but as tools to help improve the system/processes in place and prevent adverse events
How Near Miss Reports are used:

- Things looked at when doing root cause analysis:
  - Communication
  - Orientation/training
  - Patient assessment
  - Availability of information
  - Staffing levels
  - Physical environment issues
  - Continuum of care
  - Preventive compliance
  - Alarm systems
  - Organizational culture

Results from the Root Cause Analysis:

- Practice changes
- Policy changes
- Education of staff
- Increase patient safety
- Decrease cost to provide care
- Decrease length of stay for the patients
- Safer work environment

So What Have we learned:

- The Joint Commissions Patient Safety Goals of 2010 are that apply to hospitals.
- The impact of medical errors on the Health Care System and what is not being covered by insurers.
- A working basic knowledge of medical error terminology.
- What, why, who, and when of near misses.
- How near misses are used.
- What can be gained from recording near misses and why near misses recording is important (happens 300 more time than an adverse event).
- Finally, recording near misses can have a positive impact on patient safety which is everyone's responsibility.

Survey

- Please go to the website below and fill out the survey. This survey is for review of this educational tool only. Thank you for your time.

http://www.surveymonkey.ca/386884

Copy the address bar above and place in the address bar. Click return and bring up the survey.
Thank you.
References

Appendix E: Patient Safety Survey, The importance on Near Miss Recording
Patient Safety, The importance of Near Miss recording

1. Default Section

1. My job is?
  - Nursing
  - Respiratory Therapist
  - CNA/Patient Tech/Unit Secretary
  - Nurse Manager
  - Advance Practice Nurse
  - Doctor
  - Other

2. I have been in healthcare for?
  - 0-2 years
  - 3-5 years
  - 6-10 years
  - 11-15 years
  - 16-20 years
  - 21-25 years
  - 26+ years

3. I received this information as a?
  - Podcast
  - Grand Rounds

4. I was able to understand and follow along with the presenter?
   - Strongly Disagree
   - Disagree
   - Do not agree or disagree
   - Agree
   - Strongly Agree

5. I found this teaching method appropriate to relay this type of information?
   - Disagree strongly
   - Disagree
   - Do not agree or disagree
   - Agree
   - Strongly Agree
6. I found the information presented easy to understand?

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7. I will be able to apply the information presented to my job?

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8. Length of educational program was appropriate?

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9. What information would you add or delete to this type of program?

10. Is there another way that this information could better be presented?

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Page 2
Appendix F: Data Charts and Graphs
Figure A1: A demographic chart of those who participated in the educational program. X represents number participated, Y is the different possible category of healthcare workers who participated.
Figure A2: A pie chart that represents the years in healthcare for those participating with the number of those in the years represented in (). Total number doing the educational program 22.
Figure B1. This pie chart represents how the 22 participants received the presentation respectively.
Figure C1. This bar graph represents how the different healthcare fields respond to the question, I was able to understand and follow along with the presentation. The X-axis is the likert scale 1-5; Y represents the different healthcare fields. The number at the top of the bars is the average rating of the healthcare field. The number in the middle bar represents the average response of all the participants.
Figure C2. This bar graph shows how the overall group responded to the individual presentations types based on the question I was able to understand and follow along with the presenter. The X-axis is the likert scale 1-5; Y-axis represents the different type of presentation (Podcast vs. Grand Rounds) with the average at the top of the bar for each of the presentations. The average for the total group is between the two averages.
Figure D1. This bar graph represents how the different healthcare fields responded to the question; I found this teaching method appropriate to relay this type of information. The X-axis is the Likert scale 1-5; Y represents the different healthcare fields. The number at the top of the bars is the average rating of the healthcare field. The number in the middle bar represents the average response of all the participants.
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Figure F1. This bar graph represents how the different healthcare fields response to the question; I will be able to apply the information presented to my job. The X-axis is the likert scale 1-5; Y represents the different healthcare fields. The number at the top of the bars is the average rating of the healthcare field. The number pointing to the middle bar represents the average response of all the participants.
Figure F2. This bar graph shows how the overall group responded to the individual presentations types based on the question I will be able to apply the information presented to my job. The X-axis is the likert scale 1-5; Y-axis represents the different type of presentation (Podcast vs. Grand Rounds) with the average at the top of the bar for each of the presentations. The average for the total group is between the two averages.
Figure G1. This bar graph represents how the different healthcare fields response to the question; length of educational program was appropriate. The X-axis is the likert scale 1-5; Y represents the different healthcare fields. The number at the top of the bars is the average rating of the healthcare field. The number in the middle bar represents the average response of all the participants.
Figure G2. This bar graph shows how the overall group responded to the individual presentations types based on the question length of educational program was appropriate. The X-axis is the likert scale 1-5; Y-axis represents the different type of presentation (Podcast vs. Grand Rounds) with the average at the top of the bar for each of the presentations. The average for the total group is between the two averages.
Figure H1. This pie chart represents the % responses to the question what four goals for Patient Safety of 2010 by Joint Commission do you remember. The pie chart goes around in clock formation with the % response for goal 1 being in the 12 o’clock position.

Patient Safety Goals
The 4 Goals Participants Remembered from the Presentation

- Goal 1: 16%
- Goal 14: 7%
- Goal 15: 3%
- Goal 16: 14%
- Goal 17: 8%
- Goal 18: 11%
- Goal 19: 9%
- Goal 20: 16%
- No response: 16%
Figure H. Four patient safety goals that the participants were asked to write in. The X-axis represents the number of responses; Y represents the goal, and responses for the goal bases on a response of 1-4. The graph shows how each participant answered for the goal, i.e. Of the 22 participant goal 1 was the first remembered by 11 of the participant.
Appendix G: College IRB Approval Letter

September 28, 2010

File No: 2011-081910-69

William Strub
642 County Road 7
Clifton Springs, NY 14432

Dear Mr. Strub:

Thank you for submitting your research proposal to the Institutional Review Board.

I am pleased to inform you that the Board has approved your Expedited Review project, "Patient Safety: The Importance of Near Miss Reporting."

Following federal guidelines, research related records should be maintained in a secure area for three years following the completion of the project at which time they may be destroyed.

Should you have any questions about this process or your responsibilities, please contact me at 385-5252 or by e-mail to emerson@sjfc.edu. or if unable to reach me, please contact the IRB Administrator, Jamie Mosca, at 385-8318, e-mail jmosca@sjfc.edu.

Sincerely,

Eileen M. Merges, Ph.D.
Chair, Institutional Review Board

EML

Copy 03/31/08
IRB Approval date
2. I am familiar with the established guidelines for the ethical treatment of subjects associated with my particular field of inquiry (e.g., as published by the American Psychological Association, American Sociological Association).

3. I am familiar with and will adhere to any official policies in my department concerning research with human subjects.

4. I understand that upon completion of the research project, the IRB may request a full application for review of my research at their discretion and convenience.

5. If changes in personnel involving human subjects become necessary, I will submit these changes for review before initiating the changes.

Date & Signature of Investigator(s) 
Date & Signature of Collaborator(s) and/or Student 

All student applications and applications from outside the College must have a College sponsor.

Date & Signature – Researcher

Decision of Institutional Review Board

Reviewed by: 

Subcommittee Member #1 

Date 8/25/10

Subcommittee Member #2 

Date 8/30/10

Approved Not Approved

Comments:

X Minimal Risk 
The proposed project has a research component but does not place subjects at risk and need not be in further compliance with Article 24-A.

Research & Risk 
The proposed project has a research component and places subjects at risk; the proposal
must be in compliance with Article 21-A.

[Signature]
Chairperson, Institutional Review Board

Rev. 11/08 jm

9/27/10
Date