

# Implementing a Bedside Check of Chemotherapy to Decrease Wrong Patient-Related Medication Errors

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## INTRODUCTION

Significant patient harm due to inadvertent, incorrect administration of chemotherapy in our Bone Marrow Transplant Unit (BMT) was identified as a preventable problem. According to the Institute of Safe Medication Practice (ISMP) (2008), high alert medications, such as chemotherapeutic agents, can lead to significant patient harm, possibly death, if used in error. After attending the Agency for Healthcare Research and Quality (AHRQ) TeamSTEPPS training and peer discussion, BMT nursing staff implemented a practice change intended to prevent wrong patient-related medication errors – a bedside check of chemotherapy. Per UNC Health Care institutional policy (2008), all chemotherapy must be independently double checked by two chemotherapy-competent nurses prior to administration. However, this verification does not include a bedside check. UNCH institutional policy (2009) and the Joint Commission (2008) also require patient identification using two unique patient identifiers be confirmed at the bedside against the patient's identification armband prior to administering medications. We defined a bedside check as two chemotherapy-competent nurses comparing and verifying the patient's name and medical record number against the patient's identification armband and the same identifiers on the chemotherapy product label at the bedside. Our project sought to answer the following questions:

1. Does implementation of a bedside check of patient identification by two chemotherapy-competent nurses prior to administering chemotherapy decrease the incidence of wrong patient-related chemotherapy medication errors in the Bone Marrow Transplant Unit?
2. How consistently were these bedside checks performed?



## METHODS

BMT Unit medication error data of wrong patient-related chemotherapy errors from August 1, 2008 to November 1, 2008 was compared to post bedside check implementation data from November 2, 2008 to February 1, 2009. A data collection tool that captured compliance with the bedside check was designed. Data collection occurred during 90 chemotherapy administration opportunities from November 1, 2008 to February 1, 2009. Briefing between the charge nurse and the patient's assigned nurse was completed at the shift's beginning and included communicating the room number of all patients receiving chemotherapy that shift. Debriefing between the charge nurse and the patient's assigned nurse was completed just prior to shift's end and consisted of recording the nurse's YES or NO response to the question, "Did you have 2 RNs check chemo in the room?"

## RESULTS

Medication error data revealed no wrong patient-related chemotherapy errors were reported for the 3 months prior to and after the bedside check implementation. All chemotherapy doses were double-checked at the bedside during the 90 chemotherapy administration opportunities after implementing the bedside check.

## DISCUSSION

Medication error data was inconclusive, as no errors related to wrong patient identification involving chemotherapy were reported prior to or after the practice change. BMT nursing staff consistently changed their nursing practice by implementing a bedside check of chemotherapy. As this practice change continues, we anticipate 0% incidence of wrong patient-related chemotherapy administration errors. We anticipate this bedside check may offer more opportunities for patients to inquire about their chemotherapy and be actively involved in the identification process. Patient satisfaction may improve if patients note we take extra care to make sure they receive the intended therapy. Project barriers included resistance to change, lack of a readily accessible additional RN to perform the bedside check, underreporting of medication errors, miscommunication to staff that the bedside check must be performed with every patient/every dose, miscommunication of the elements we intended to check in addition to patient's name (i.e. drug, dose, volume, rate), and nearly missed opportunities for data collection.

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## LESSONS LEARNED & OTHER OUTCOMES

- Briefing/debriefing continued every shift despite the project's end.
- Staff awareness of the importance of the use of personal protective equipment (PPE) increased.
- Staff reported the chemotherapy bedside check on a recent BMT Staff Satisfaction survey as "the best change on the BMTU this year".
- To further enhance safety, a double-check of the programmed infusion pump could have occurred.
- Introducing change of any kind can be challenging. Be prepared for staff resistance.

## REFERENCES

- Institute for Safe Medication Practices (2008). *ISMP's list of high-alert medications*. Retrieved March 5, 2009 from <http://www.ismp.org/Tools/highalertmedications.pdf>
- Joint Commission (2008). National patient safety goals. Retrieved March 30, 2009 from [http://www.jointcommission.org/NR/rdonlyres/31666E86-E7F4-423E-9BES-F05BD1CB0AA8/0/HAP\\_NPSG.pdf](http://www.jointcommission.org/NR/rdonlyres/31666E86-E7F4-423E-9BES-F05BD1CB0AA8/0/HAP_NPSG.pdf)
- UNC Health Care (2008). Medication management: Prescribing, dispensing, and administration of chemotherapy and immunotherapy. Retrieved March 30, 2009 from <http://intranet.unchealthcare.org/policies/unc-hcs-policies-pdf-new-format/ADMIN0188%20pdf.pdf>
- UNC Health Care (2009). Patient identification: Medication administration, administering blood products, taking blood samples or specimens, or providing treatments or procedures. Retrieved March 30, 2009 from <http://intranet.unchealthcare.org/policies/unc-hcs-policies-pdf-new-format/ADMIN0145%20pdf.pdf>