

Decreasing Interruptions in MED Administration

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DECREASING INTERRUPTIONS IN MEDICATION ADMINISTRATION

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A PASSION FOR BETTER MEDICINE.™



Background/Significance

Many evidence based research projects have emphasized the importance of medication administration and the occurrence of medication errors. Researchers have identified a strong correlation between interruptions during the medication administration process and medication errors.

This project was designed to identify types of interruptions during the medication administration process and implement strategies to reduce medication administration interruptions.

Purpose

- **Project Purpose:**

- Decrease medication errors by using interventions found in evidence based research to decrease interruptions during medication administration

PICO QUESTION

In the adult inpatient medical/surgical population (population), does the use of signage, patient education, and meeting patient needs prior to medication administration (intervention) versus no intervention (comparison) decrease interruptions during medication administration (outcome)

TRIGGER?

- Problem focused trigger
 - Identification of clinical problem
 - Increased interruptions during medication administration potentiate the occurrence of medication errors and compromise patient safety
 - Reducing medication interruptions aids to promote patient safety and the decrease of medication errors

EVIDENCE

- Search Engines
 - CINAHL
 - Google Scholar
 - PubMed
 - EBSCOhost
 - Cochrane Database

- Keywords
 - Decreasing medication interruptions
 - Medication interruptions
 - Medication errors and interruptions
 - Medication administration distractions

EVIDENCE

- **Many studies confirm that nurses encounter frequent interruptions during medication administration**
 - “the most common distractions were from patients- either because they demanded care or because the nurse delivered other aspects of care during drug rounds.” (Kreckler et. al., 2008)


- **Types of Interruptions**
 - Evidence shows phone calls cause the longest duration of interruptions
 - Physicians assessing or talking with patients during med pass
 - Self-induced interruptions (looking for equipment, delivering patient care, going to access the Pyxis for forgotten medications)
 - Patient interruptions and questions
 - Visitor interruptions
 - Colleague interruptions (TPs, APs, Nurses)

EVIDENCE

- **Successful interventions from research evidence**
 - “Red Zone”, red lanyard, patient and staff education (Trossman, 2010)
 - 50% decrease in medication administration interruptions
 - Medication pass went 15% faster
 - Staff and physician education, “Do not disturb” signage, protocol check lists, medication safety focus group (Pape et al, 2005)
 - Greatest reduction after signs were implemented was interruptions by other nurses
 - Decrease in distractions equaled quicker medication administration
 - After 3 weeks of checklist protocol, there was a decrease in the number of reported med errors
 - “No Interruption Zone” red duct tape area with education of staff (Anthony et. al., 2010)
 - % of interruptions went from 31.8 to 18.8
 - T test showed statistical significance

IMPLEMENTATION

■ Signage



MEDICATION
ADMINISTRATION
IN PROGRESS

■ Patient and staff education (TP, RN, AP)

- Staff was educated with poster board and verbal teaching by EBP project Nurse Residents prior to initiation of project
- Patient education and signage
 - Patient provided with information sheet prior to medication administration
 - Sign stating “Medication Administration in Progress” utilized on door frame of patient room
- Patient education alone
 - Patient provided with information sheet prior to medication administration

Decreasing Interruptions in Medication Administration

Disclaimer: Many evidence based research projects have emphasized the importance of medication administration and the occurrence of medication errors. Research identifies a strong correlation between interruptions during the medication administration process and medication errors. Lehigh Valley Health Network continues to strive to provide safe patient care. In an attempt to ensure patient safety, the Nurse Residents are implementing a research based study to observe common medication interruptions and implement interventions to decrease such interruptions.

1. How can you help to decrease medication interruptions?
 - a. Asking for your needs to be met prior to the beginning of medication administration
 - b. Postponing non-urgent requests until medication administration is completed
 - c. Review daily ROADMAP with medication list
 - i. Address questions regarding ordered medications during bedside rounding or prior to the beginning of medication administration
 - d. Encouraging family members to participate in decreasing interruptions and distractions

2. What to expect from the observational research study
 - a. As the patient, you will be educated on being part of the observational study
 - b. A Nurse Resident will be observing a nurse during the daily med administration
 - c. The nurse will meet your needs prior to medication administration
 - i. Assessing need for pain medication, toileting needs, new water
 - d. The nurse will alert you when the medication administration process will begin. A sign stating "Medication administration in progress" will be posted outside the door.
 - i. At this time, we ask that you withhold all non-urgent questions, interruptions, and distractions

Data Collection Process

- Data collected using “Medication Administration Interruption Checklist” by Nurse Resident, who remained outside of nurse’s view
 - Checklist was completed in THREE different scenarios
 - Education and Signage
 - Education Only
 - NO Intervention

Total # of Observations completed: 20 per scenario

Medication Administration Interruption Checklist

DATE: _____ Observation #: _____

START TIME: _____ END TIME: _____

- Did nurse complete Nurse Checklist prior to Med Pass? Y N

Distractions

Patient Interruption	
AP	
Nurses	
TP	
Family/Visitor	
*ASCOM	
*Physician/PA	
*Physical Therapy	
*Missing Medication	
*Equipment	
*Dietary	

Patient Interruption: Nurse must attend to patient needs that arise during med pass (Ex: refill water, toileting, bed alarm)

****Questions about medication are not considered an interruption****

AP: Receiving paperwork or holding conversations

Nurses: Direct interruption from other nursing staff

TP: Any non-emergency tasks or questions (Exceptions: SBP >200, falls, codes, BG <70)

Family/Visitor: Any non-emergency tasks or questions presented after start of med pass

***Indicates Uncontrolled/Non-educated factors:**

ASCOM: Any phone calls received or placed

Physician/PA Interruption: Interruptions from physicians or physician assistants

Physical Therapy: Interruptions from physical therapists that are non-emergent

Missing Medication: Med missing or incorrect dose

Equipment: Malfunctioning scanners, computers, telemetry beepers

Dietary: Interruptions from Dietary delivering trays

Current Practice at LVHN

- “If interrupted or distracted during the process of medication preparation or administration process, the nurse is to reinitiate the entire process from the beginning” (LVHN Policy and Procedure Manual)

Medication - Administration - Patient Care Services	1	Approved
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21. If interrupted or distracted during the process of medication preparation or administration process, the nurse is to reinitiate the entire process from the beginning.

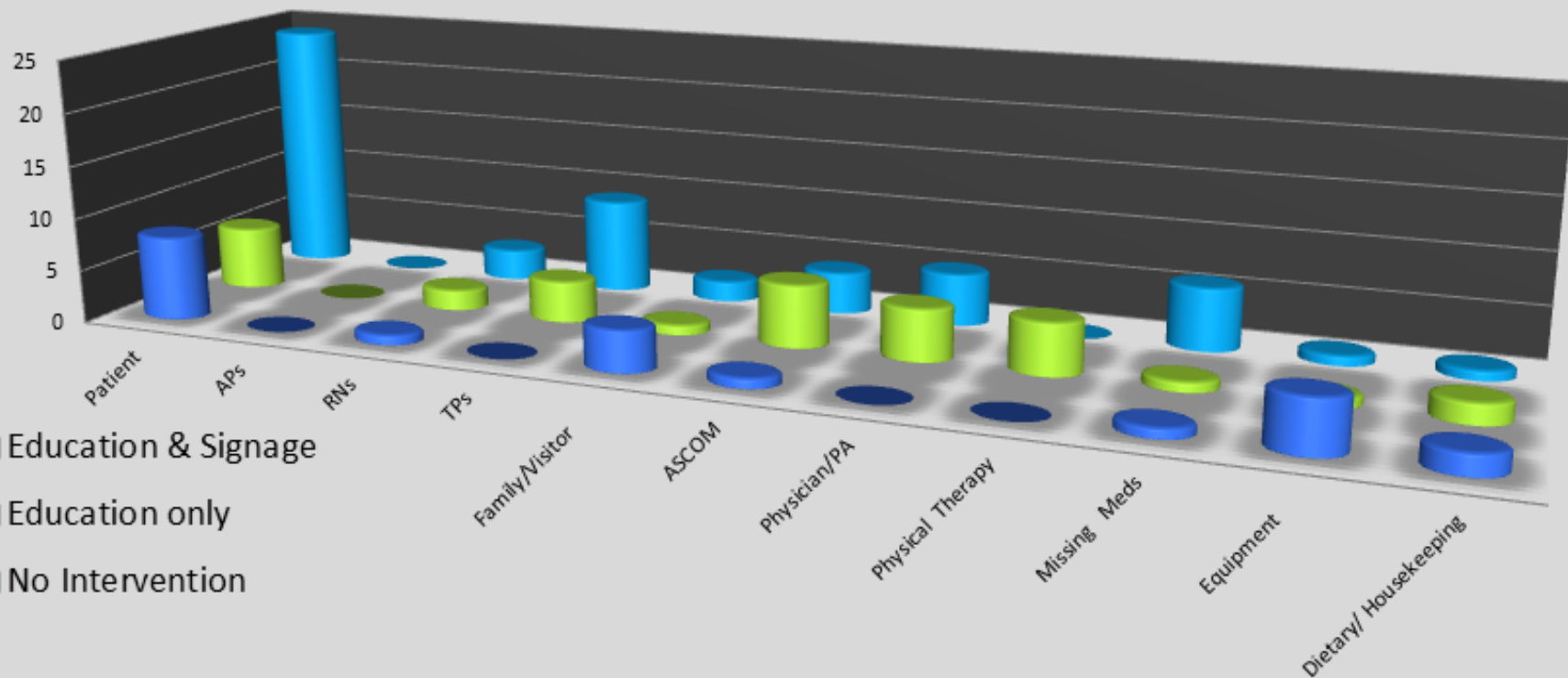
(Found on page 10)

RESULTS

- **Observations**
 - 20 observations with no intervention
 - 20 observations with education only intervention
 - 20 observations with education and signage interventions

- **Results**
 - 60 interruptions with NO intervention
 - 33 interruptions with education only
 - 22 interruptions with education and signage

Interruptions Observed during Med Administration



- Education & Signage
- Education only
- No Intervention

	Patient	APs	RNs	TPs	Family/Visitor	ASCOM	Physician/PA	Physical Therapy	Missing Meds	Equipment	Dietary/ Housekeeping
■ Education & Signage	8	0	1	0	4	1	0	0	1	5	2
■ Education only	6	0	2	4	1	6	5	5	1	1	2
■ No Intervention	24	0	3	9	2	4	5	0	6	1	1

Practice Change

- Best results were shown with the usage of both patient education and “medication administration in progress” signage.
- Potential for hospital wide signage usage
- Patient education through Krames

Implications for LVHN

- To continue ensuring patient safety by promoting safer medication administration and decreasing medication errors through the use of enhanced patient/staff education and medication signage by the nursing staff

Lessons Learned

- Identification of key sources of interruptions during medication administrations

- Developed effective interventions
 - Providing more in depth education materials for the patients, including the types of interruptions

 - Continuous reinforcement and staff education in regards to delaying non-urgent questions until after medication administration has been completed

Strategic Dissemination of Results

- Present findings and recommendations to colleagues at LVHN

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