

Medication Interruption







Instructor Information

Patient Name: Right, Donna

Simulation Developer(s): Melissa Brickner and Debra A. Mosley

Scenario Purpose:

To assist nursing staff with preventing medication errors associated with interruptions

<u>Learner(s)</u>:

- Registered Nurses (RN), Licensed Practical Nurses (LPN), Unlicensed Assistive Personnel (UAP)
- Others as desired, depending on facility protocols
- Recommend no more than 6 learners (3 of which can be observers)

Time Requirements:

Setup: 5 minutesScenario: 25 minutesDebrief: 25 minutes

Reset/Breakdown: 5 minutes

Confederate(s):

Staff nurse

Scenario Prologue:

- 34 y/o female receiving intravenous antibiotic infusion for treatment of osteomyelitis of the right tibia positive for staphylococcus aureus. Several interruptions take place while the nurse is attempting to administer medications.
- The simulation begins when the learners are receiving report from the nurse

Patient information:

• General: Alert, oriented and calm

• Weight/Height: 75kg (165lbs) / 172.7cm (68in)

• Vital Signs: BP 140/80; Temp 97.3; HR 86; RR 20; O2 Sat 98%

Pain: 2/10 in right lower extremity

• Neurological: Unremarkable

Respiratory: Eupneic*Cardiac:* Unremarkable

Gastrointestinal: Unremarkable

Genitourinary: Unremarkable

Musculoskeletal: Osteomyelitis in the right lower extremity

• Skin: Pin point wound on right lower extremity

<u>Past Medical History</u>: Asthma, osteomyelitis of the right tibia
 Positive for staphylococcus aureus

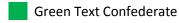
 Past Surgical History: Tonsillectomy with adenoidectomy, s/p open reduction of a fracture of the right tibia related to motor vehicle accident

Medications:

- Ipratropium bromide inhaler
 2 puffs 3 times a day
- Multivitamin daily

Allergies:

Sulfa



Red Text Physiology Change







Learning Objectives

Patient Name: Donna Right

Simulation Developer(s): Melissa Brickner and Debra A. Mosley

Scenario Purpose:

• To assist nursing staff with preventing medication errors associated with interruptions

Pre-Session Activities:

- Complete pertinent training on prevention of medication errors associated with interruptions
- Review any pertinent policies and protocols

Potential Systems Explored:

- What standardized protocols currently exist to prevent interruptions during the administration of medications?
- What factors have been identified as potential causes of medication interruptions leading to medication errors?
- What factors are important to consider

Scenario Specific Learning Objectives (Knowledge, Skills, and Attitudes = K/S/A):

**The learner will apply ICARE principles throughout the scenario

- 1. Learning Objective 1: Recognize factors that could potentially lead to medication errors
- a. **S** Follow facility specific protocol for medication administration
- b. **S** Recognize extraneous conversation as a distraction potentially leading to medication errors
- c. **S** Recognize the confederate nurse rushing as a risk leading to medication errors
- d. **S** Recognize the music playing as a potential distraction leading to medication errors

Learning Objective 2: Implement measures to prevent errors associated with interruptions during medication administration

a. **S**- Implement facility protocol to prevent interruptions and distractions during medication administration

Learning Objective 3: Demonstrate effective communication when implementing measures to prevent medication errors associated with interruptions

- a. S- Notify team members when preparing to administer medication
- b. **S** Provide patient/family education when implementing measures to prevent interruptions and distractions during medication administration

Debriefing Overview:

- Ask the learner(s) how they feel after the scenario
- Have the learner(s) provide a summary of the scenario from a healthcare provider/clinical reasoning point of view
- Discuss the scenario and ask the learners what the main issues were from their perspective
- · Ask what was managed well and why.
- Ask what they would want to change and why.
- For areas requiring direct feedback, provide relevant knowledge by stating "I noticed you [behavior]..." Suggest the behavior they might want to portray next time and provide a rationale. "Can you share with us?"
- Indicate closing of the debriefing but provide learners with an opportunity to voice one or two take-aways that will help them in future practice
- Lastly, ask for any outstanding issues before closing the debrief

Critical Actions/Debriefing Points:

- 1. Verify orders
- 2. Perform hand hygiene
- 3. Recognize distractions (staff nurse/patient conversation, staff nurse being in a rush, and music)







Simulations for Clinical Excellence in Nursing Services

Medication Interruption

- 4. Implement measures to minimize distraction
- 5. Recognize wrong dose of medication
- 6. Complete rights of medication administration; check for allergies
- 7. Prepare to administer medication







Simulation Set-Up

Patient Name: Donna Right

(ALS Manneguin and IV task trainer)

<u>Simulation Developer(s):</u> Melissa Brickner and Debra A. Mosley

Room Set-up:

Set up like an outpatient or inpatient room

Patient Preparation:

- The patient is wearing street clothes (outpatient)
- The patient is wearing a hospital gown (inpatient)
- Saline lock is in place
- Place a Band-Aid or 2 x 2 dressing with tape to cover a pin point wound on the right shin

Have the following equipment/supplies available:

- Gloves
- Stretcher/recliner
- Saline lock with luer-lock female adapter
- IV primary tubing
- Luer-lock male adapter
- Labeled 100mL pre-mixed piggyback bag with Ceftriaxone 10 G
- Labeled 100mL pre-mixed piggyback bag with Ceftriaxone 2 G
- Working cell phone with music playing
- IV saline flush
- Band-Aid or 2 x 2 dressing and tape
- Bedside table

Medications:

- Ceftriaxone 2 G IV
- Ceftriaxone 10 G IV
 - **Calibration will be required if using radiofrequency identification (RFID)

Note: 5.8 Simpad software update is required to load scenarios (http://cdn.laerdal.com/downloads/f4343/simpad-upgrade.vs2 Scenarios may be used with Laerdal or LLEAP software

Scenario Supplements:

- Confederate scripts
- Confederate name tags
- Patient identification bands for the ALS Mannequin and task trainer
- Nurses notes
- Orders
- Ceftriaxone 2 G medication label
- Ceftriaxone 10 G medication label
- ZZ test patient/Demo patient in CPRS (if desired)







Initial State:

- Mental Status: Alert and oriented

- Sp02: 98% - BP: 140/80 - HR: 86 - RR: 20

- Eyes: Open

- Skin: Pin point wound on right shin covered with small dressing

**Did not... **

 ... recognize staff nurse's conversation as a distraction and/or implement measures to minimize distraction ...

The patient will state "Can you save the chatter for later?"

Did not...

 ... recognize the patient's conversation as a distraction and/or implement measures to minimize distraction... The patient will continue conversation.

**Did not... **

 ...recognize the staff nurse's attempt to rush as a distraction and implement measures to minimize distraction... The staff nurse will wait with arms crossed attempting to further rush the learner(s)

Did not...

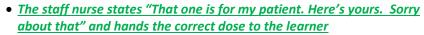
 ...recognize the music as an additional distraction and implement measures to minimize distraction... The patient will begin to sing to the music.

Flowchart

34 y/o female receiving intravenous antibiotic infusion for the treatment of osteomyelitis of the right tibia positive for staphylococcus aureus.



- The staff nurse enters the room and states "pharmacy just delivered this for your patient," hands the learner(s) the Cephalexin 10 G piggyback bag and initiates conversation about the weekend
- <u>Implements measures to minimize distraction during medication</u> <u>administration per policy</u>
- Verifies orders
- Gathers supplies for medication administration per protocol
- Recognizes the medication is the wrong dose



- Performs hand hygiene
- The patient distracts the learner(s) by initiating a conversation
- Recognizes patient's conversation as an additional distraction
- Implements measures to minimize distraction



The staff nurse distracts the learner(s) by asking the learner(s) if they are going to be much longer because they need to leave early and haven't passed meds yet

- Recognizes confederate nurse's conversation as an additional distraction
- Implements measures to minimize distraction



- The patient distracts the learner(s) by playing music loudly on her cell phone
- Recognizes music as an additional distraction
- Implements measures to minimize distraction

• Verifies medication information

- Completes rights of medication administration; checks for allergies
- Prepares to administer medication

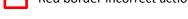
Critical Actions/Debriefing Points:

- Verify orders
- Perform hand hygiene
- Recognize distractions (staff nurse/patient conversation, staff nurse being in a rush, and music)
- Implement measures to minimize distraction
- Recognize wrong dose of medication
- Complete rights of medication administration; check for allergies
- Prepare to administer medication





Red border incorrect action









Supplements

Confederate Scripts
Confederate Name Tags
Patient Identification Band
Nurses Notes
Orders
Medication Labels







Confederate Scripts

Donna Right: Patient

<u>Medical/Surgical History</u>: Asthma, osteomyelitis of the right tibia positive for staphylococcus aureus. Tonsillectomy with adenoidectomy, s/p open reduction of a fracture of the right tibia related to motor vehicle accident

Medications: Multivitamin daily and Ipratropium bromide inhaler 2 puffs 3 times a day Allergies: Sulfa

- The staff nurse enters the room and states "pharmacy just delivered this for your patient," hands the learner(s) the Cephalexin 10 G piggyback bag and initiates conversation about the weekend
- If the learner(s) did not recognize staff nurse's conversation as a distraction and/or implement measures to minimize distraction ... The patient will state "Can you save the chatter for later?"
- The learner(s) will perform hand hygiene
- The staff nurse states "That one is for my patient. Here's yours. Sorry about that" and hands the correct dose to the learner
- The patient distracts the learner(s) by initiating a conversation
- If the learner(s) <u>did not</u> recognize the patient's conversation as a distraction and/or implement measures to minimize distraction... The patient will continue conversation.
- The staff nurse distracts the learner(s) by asking the learner(s) if they are going to be much longer because they need to leave early and haven't passed meds yet
- If the learner(s) <u>did not</u> recognize the staff nurse's attempt to rush as a distraction and implement measures to minimize distraction... The staff nurse will wait with arms crossed attempting to further rush the learner(s)
- The patient distracts the learner(s) by playing music loudly on her cell phone
- If the learner <u>did not</u> recognize the music as an additional distraction and implement measures to minimize distraction... The patient will begin to sing to the music

Medication Interruption

Staff Nurse

- The staff nurse enters the room and states "pharmacy just delivered this for your patient," hands the learner(s) the Cephalexin 10 G piggyback bag and initiates conversation about the weekend
- If the learner(s) did not recognize staff nurse's conversation as a distraction and/or implement measures to minimize distraction ... The patient will state "Can you save the chatter for later?"
- The learner(s) will perform hand hygiene
- The staff nurse states "That one is for my patient. Here's yours. Sorry about that" and hands the correct dose to the learner
- The patient distracts the learner(s) by initiating a conversation
- If the learner(s) <u>did not</u> recognize the patient's conversation as a distraction and/or implement measures to minimize distraction... The patient will continue conversation.
- The staff nurse distracts the learner(s) by asking the learner(s) if they are going to be much longer because they need to leave early and haven't passed meds yet
- If the learner(s) <u>did not</u> recognize the staff nurse's attempt to rush as a distraction and implement measures to minimize distraction... The staff nurse will wait with arms crossed attempting to further rush the learner(s)







Confederate Name Tags

Staff Nurse

Shaddoo for Christ Lacellocae

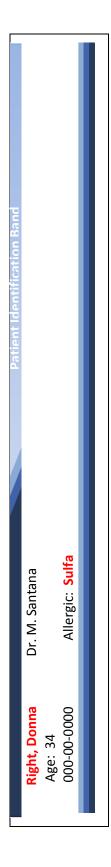
Shadoo for Christ Lace







Patient Identification Band









Nurses Notes

Date: Today

Patient Name: Donna Right

Mode of Arrival: Personally owned vehicle

Accompanied by: Self

Insert picture of patient here

<u>Chief Complaint:</u> 34 y/o female requiring intravenous antibiotic infusion for treatment of osteomyelitis of the right tibia positive for staphylococcus aureus

Active Problems: Asthma. Osteomyelitis of the right tibia positive for staphylococcus aureus.

Patient information:

General: Alert, oriented and calm

Weight/Height: 75kg (165lbs) / 172.7cm (68in)

Vital Signs: BP 140/80; Temp 97.3; HR 86; RR 20; O2 Sat 98%

Pain: 2/10 in right lower extremity

Neurological: Unremarkable

<u>Respiratory</u>: EupneicCardiac: Unremarkable

• Gastrointestinal: Unremarkable

• **Genitourinary:** Unremarkable

• Musculoskeletal: Osteomyelitis in the right lower extremity

• **Skin:** Pin point wound on right lower extremity

<u>Past Medical History</u>: Asthma, osteomyelitis of the right tibia
 Positive for staphylococcus aureus

 <u>Past Surgical History</u>: Tonsillectomy with adenoidectomy, s/p open reduction of a fracture of the right tibia related to motor vehicle accident

SCREEN FOR ABUSE/NEGLECT: N/A

Does the patient show any evidence of abuse? No Does the patient feel safe in his/her current living arrangements? Yes Suicidal or Homicidal Ideation in the past two weeks? No Is the patient currently enrolled in primary care? Yes

Diagnostic Procedures Ordered:

() X-Ray

() Labs

() None

() EKG

() Head CT without contrast

() Other

<u>Triage Classification:</u> Emergency Severity Index Patient Disposition: Medical-Surgical Unit

Signed by: /DM/







Medications:

- Ipratropium bromide inhaler
 2 puffs 3 times a day
- Multivitamin daily

Allergies:

Sulfa

Orders

Patient Information

Right, Donna Dr. M. Santana

Age: 34

Social Security #: 000-00-0000

Allergies: Sulfa

Weight: 75kg (165lbs)
Height: 172.7cm (68in)

Diagnosis	Osteomyelitis of the right tibia
Condition	Stable
IV Therapy	Saline Lock
Medications	Ceftriaxone 2G IVPB over 30 minutes

DO NOT WRITE IN THIS SPACE



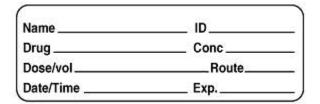




Medication Labels



Each vial contains: Ceftriaxone sodium USP powder Single-Use Vial Rx only equivalent to 2 g ceftriaxone. For I.M. Administration: Reconstitute with 4.2 mL 1% Lidocaine Hydrochloride Injection (USP) or Sterile ceftriaxone for Water for Injection (USP). Each 1 mL of solution contains approximately 350 mg equivalent of ceftriaxone. injection, USP For I.V. Administration: Reconstitute with 19.2 mL of an I.V. diluent specified in the accompanying package insert. Each 1 mL solution contains approximately 100 mg For I.M. or I.V. Use equivalent of ceftriaxone. Withdraw entire contents and dilute to the desired concentration with the appropriate 2 g/vial USUAL DOSAGE: See package insert. Storage Prior to Reconstitution: Store powder at 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature]. Distributed by Protect From Light. Storage After Reconstitution: See package insert. Pfizer Labs Code No.: 78/MD/AP/96/F/B/R Made in India Division of Pfizer Inc., NY, NY 10017









References

- Dao Le, L. K. (2014). Intravenous medications: Preparation and administration,

 Evidence Summary. *JBI: Joanna Briggs Institute Database*, 1-4. Retrieved from http://ovidsp.uk.ovid.com
- Department of Veterans Affairs. (2011). VHA National patient safety improvement handbook (VHA Handbook 1050.01). Washington, DC: VHA Publications.
- Department of Veterans Affairs (2015) Essential medication information standards (VHA Directive 1164). Washington, DC: VHA Publications.
- Department of Veterans Affairs. (2015). Safe medication injection practices (VHA Directive 1014). Washington, DC: VHA Publications.
- Elliot, M., & Liu, Y. (2010). The nine rights of medication administration: An overview.

 *British Journal of Nursing, 19(5), 300-305. doi:10.12968/bjon.2010.19.5.47064
- Institute for Safe Medication Practices. (2016). 2016-2017 Targeted medication safety best practices for hospitals. Retrieved February 3, 2016, from http://ismp.org
- The Joint Commission. (2016). 2016 Hospital national patient safety goals. Retrieved from http://jointcommission.org
- Lizarondo, L. (2016). Medication administration: Interventions to reduce errors,

 Evidence Summary. *JBI: Joanna Briggs Institute Database*, 1-3. Retrieved from http://ovidsp.uk.ovid.com
- Munn, Z., & Dao Le, L. K. (2016). Medication administration errors: 'Rights' of administration, Evidence Summary. *JBI: Joanna Briggs Institute Database*, 1-3. Retrieved from http://ovidsp.uk.ovid.com
- O'Grady, N. P., Alexander, M., Burns, L. A., Dellinger, E. P., Garland, J., Heard, S. O.,...Healthcare Infection Control Practices Advisory Committee. (2011).







- Guidelines for the prevention of intravascular catheter-related infections. *Clinical Infectious Diseases*, *52*(9), e162-e193. doi:10.1093/cid/cir257
- U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2014). *National action plan for adverse drug event prevention*. Washington, DC: Author.
- Wimpenny, P., & Kirkpatrick, P. (2010). Roles and systems for routine medication administration to prevent medication errors in hospital-based, acute-care settings: A systematic review. *JBI Library of Systematic Reviews, 8*(10), 405-446. Retrieved from http://ovidsp.uk.ovid.com
- Yoder, M., Schadewald, D., & Dietrich, K. (2015). The effect of a safe zone on nurse interruptions, distractions, and medication errors. *Infusion Nurses Society, 38*(2), 140-151. doi:10.1097/NAN.0000000000000005





