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Infusion: IV Start and Antibiotics

Instructor Information

Patient Name: Right, Donna

Simulation Developer(s): Melissa Brickner, Bridgett Everett, Debra A. Mosley, Beverly Snyder-Desalles, and Judy Young

Scenario Purpose:

- To assist nursing staff to effectively initiate intravenous access and administer antibiotic infusion therapy

Learner(s):

- 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 minutes
- Scenario: 25 minutes
- Debrief: 25 minutes
- Reset/Breakdown: 5 minutes

Confederate(s):

- Family member (optional)

Scenario Prologue:

- 34 y/o female presents for her intravenous antibiotic infusion for the treatment of osteomyelitis of the right tibia positive for staphylococcus aureus
- The simulation begins when the learners are receiving report from the nurse**

Patient information:

- General:** Alert, oriented and calm
- Weight/Height:** 113.6kg (250lbs) 172.7cm (68in)
- Vital Signs:** BP 96/60; Temp 97.3; HR 98; RR 20; O2 Sat 96%
- 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
- Past Medical History:** 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

 Green Text Confederate

 Red Text Physiology Change

Learning Objectives

Patient Name: Donna Right

Simulation Developer(s): Melissa Brickner, Bridgett Everett, Debra A. Mosley, Beverly Snyder-Desalles, and Judy Young

Scenario Purpose:

- Assist nursing staff to effectively initiate intravenous (IV) access and administer antibiotic infusion therapy

Pre-Session Activities:

- Complete pertinent training on initiating IV infusions and antibiotic therapy
- Review any policies and protocols on initiating IV infusions and antibiotic therapy

Potential Systems Explored:

- What standardized protocols currently exist to establish safety with initiating and monitoring IV and antibiotic infusion therapy?
- When should the healthcare provider consider stopping an IV and/or antibiotic infusion?
- What factors are important to consider prior to initiating IV and/or antibiotic therapy?
- Which staff members are qualified to initiate IV and/or antibiotic infusion therapy?
- What facility specific documentation is required when initiating and/or monitoring IV infusions and antibiotic therapy?
- How would this process differ for an inpatient versus an outpatient?
- What contraindications should be considered for the patient receiving IV and/or antibiotic infusion therapy?
- What complications is the patient receiving IV and/or antibiotic infusion therapy at risk for developing?

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

**The learner will apply ICARE principles throughout the scenario

Learning Objective 1: Initiate Intravenous Infusion therapy according to protocol

- S- Initiate intravenous access using aseptic technique per facility protocol*
- S- Utilize facility specific equipment/supplies appropriately*

Learning Objective 2: Demonstrate the steps required to initiate and monitor intravenous antibiotic therapy

- S- Perform the rights of medication administration taking care to check for allergies per facility protocol*
- S- Assemble the required equipment to administer intravenous antibiotic therapy*
- S- Initiate intravenous antibiotic therapy per protocol*

Learning Objective 3: Demonstrate effective communication when caring for the patient receiving intravenous antibiotic infusion therapy

- S- Explain the procedure to the patient/family at a level they can understand*
- S- Advise the patient/family to call for assistance should an adverse reaction occur at a level they can understand*
- S- Complete facility specific documentation of actions taken*

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 with another nurse
2. Perform patient education
3. Perform hand hygiene
4. Utilize aseptic technique
5. Use personal protective equipment
6. Verify allergies including to tape, adhesives, and skin antiseptic
7. Initiate IV per facility policy
8. Allow 20 seconds for antiseptic to dry
9. Perform rights of medication administration
10. Prepare antibiotic taking care not to allow fluid to drip from the end of the tubing
11. Initiate infusion utilizing facility specific infusion equipment per protocol
12. Inform patient to notify the nurse of any adverse reactions
13. Complete documentation to include what was done and how the patient tolerated it

Simulation Set-Up

Patient Name: Donna Right

(ALS Mannequin and IV task trainer)

Simulation Developer(s): Melissa Brickner, Bridgett Everett, Debra A. Mosley, Beverly Snyder-Desalles, and Judy Young

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)
- 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
- IV catheters (22g or 20g)
- IV start supplies (tourniquet, tape, clear occlusive dressing, label, antiseptic skin prep, 2x2 gauze pads, etc.)
- Saline lock with luer-lock female adapter
- IV primary tubing
- Luer-lock male adapter (2)
- Piggyback bag for mixing antibiotic (if applicable)
- Medication label for intravenous (IV) Ceftriaxone 2 G
- Syringe with needle for mixing antibiotic (if applicable)
- Diluent for mixing antibiotic (if applicable)
- IV saline flush
- Band-Aid or 2 x 2 dressing and tape
- IV pump (if applicable)
- Bedside table

Medications:

- Ceftriaxone 2 G IV

**Calibration will be required if using radiofrequency identification (RFID)

Note: 5.8 Simpad software update is required to load scenarios

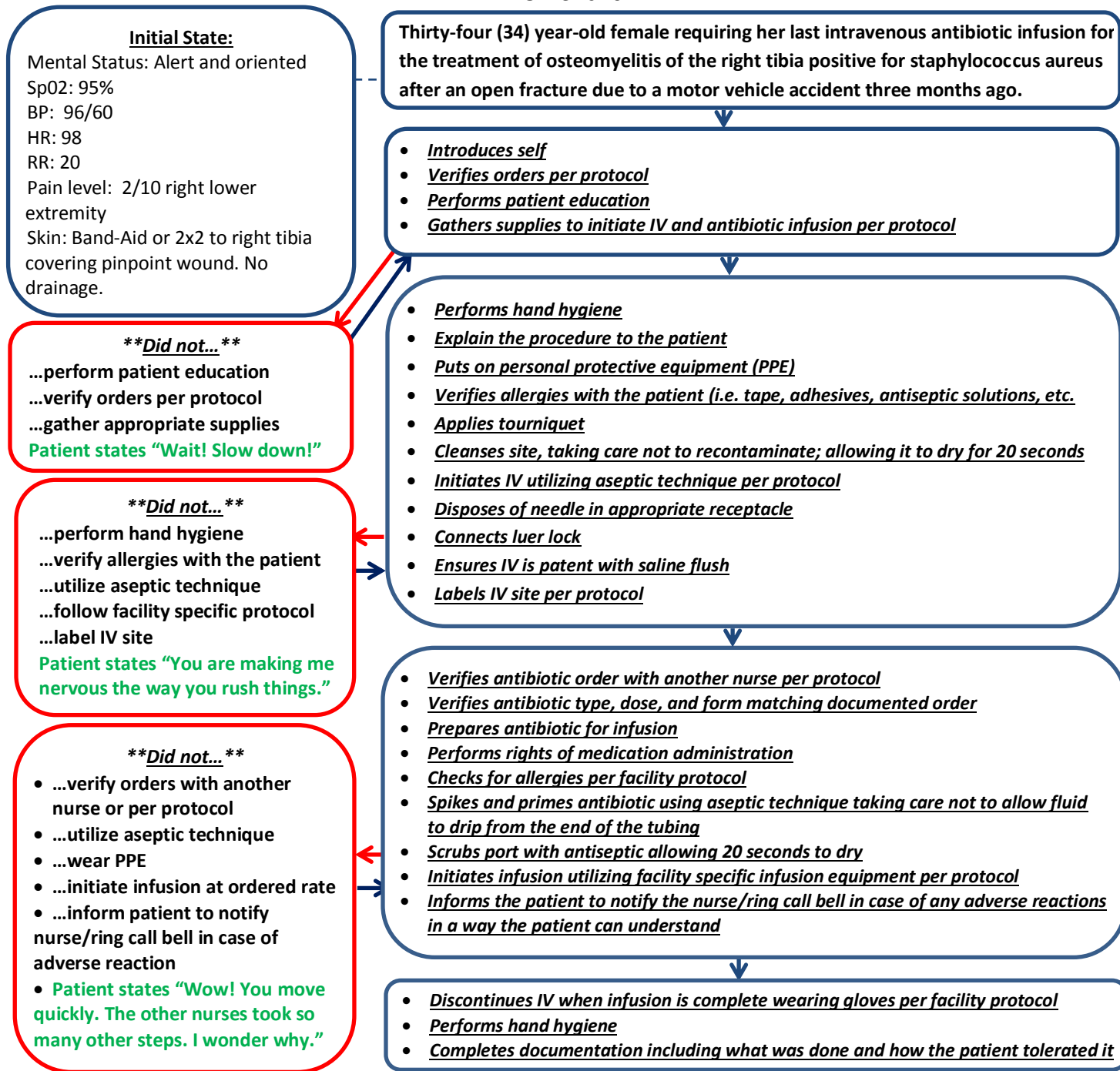
(<http://cdn.laerdal.com/downloads/f4343/simpad-upgrade.vs2>)

Scenarios may be used with Laerdal or LLEAP software

Scenario Supplements:

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

Flowchart



Critical Actions/Debriefing Points:

- Verify orders with another nurse
- Perform patient education
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- Initiate infusion utilizing facility specific infusion equipment per protocol
- Inform patient to notify the nurse of any adverse reactions
- Complete documentation to include what was done and how the patient tolerated it

- Confederate
- Change in physiology
- Red border incorrect action

Supplements

Confederate Scripts

Confederate Name Tags

Patient Identification Band

Nurses Notes

Orders

Medication Labels

Confederate Scripts

Donna Right: Patient

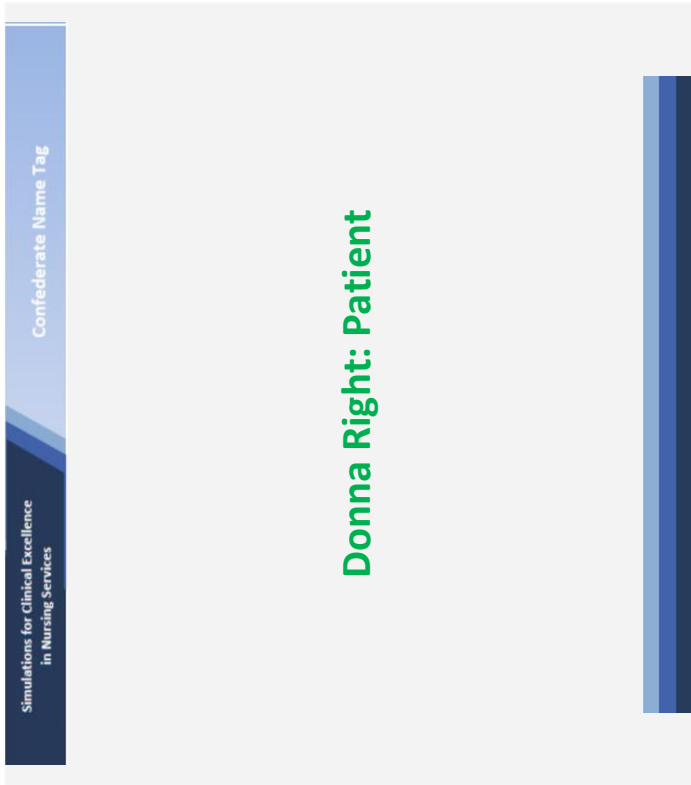
Medical/Surgical History: Asthma, osteomyelitis of the right tibia positive for staphylococcus aureus. Tonsillectomy with adenoidectomy, s/p open reduction of a fracture of the right tibia related to motor vehicle accident

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

Allergies: Sulfa

- If the learner(s) do not perform patient education; verify orders per protocol; gather appropriate supplies, **the patient will state "Wait! Slow down!"**
- If the learner(s) do not perform hand hygiene; verify allergies with the patient; utilize aseptic technique; follow facility specific protocol; label IV site, **the patient will state "You are making me nervous the way you rush things."**
- If the learner(s) do not verify orders with another nurse; utilize aseptic technique; wear PPE; initiate infusion at ordered rate; inform patient to notify nurse/ring call bell in case of any adverse reaction, the patient will state **"Wow! You move quickly. The other nurses took so many other steps. I wonder why."**

Confederate Name Tags



Patient Identification Band

Patient Identification Band

Right, Donna
Age: 34
000-00-0000

Dr. M. Santana
Allergic: **Sulfa**

Nurses Notes

Date: Today

Patient Name: Donna Right

Mode of Arrival: Personally owned vehicle

Accompanied by: Self

Insert picture of patient
here

Chief Complaint: 34 y/o female presents for her intravenous antibiotic infusion for the treatment of osteomyelitis of the right tibia positive for staphylococcus aureus

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

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Medications:

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- Multivitamin daily

Allergies:

- Sulfa

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

Triage Classification: Emergency Severity Index

Patient Disposition: Medical-Surgical Unit

Signed by: /DM/

Medication Labels

<p>Each vial contains: Ceftriaxone sodium USP powder equivalent to 2 g ceftriaxone.</p> <p>For I.M. Administration: Reconstitute with 4.2 mL 1% Lidocaine Hydrochloride Injection (USP) or Sterile Water for Injection (USP). Each 1 mL of solution contains approximately 350 mg equivalent of ceftriaxone.</p> <p>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 equivalent of ceftriaxone. Withdraw entire contents and dilute to the desired concentration with the appropriate I.V. diluent.</p> <p>USUAL DOSAGE: See package insert.</p> <p>Storage Prior to Reconstitution: Store powder at 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature].</p> <p>Protect From Light.</p> <p>Storage After Reconstitution: See package insert.</p> <p>Code No.: 78/MD/AP/96/F/B/R Made in India</p>	Single-Use Vial	Rx only	 <p>10300694483033</p> <p>P1405091 Lot</p> <p>EXP</p>
	<div style="border: 2px solid red; padding: 5px; display: inline-block;"> <p>ceftriaxone for injection, USP</p> </div>		
	<p>For I.M. or I.V. Use</p>		
	<div style="background-color: red; color: white; padding: 10px; display: inline-block;"> <p>2 g/vial</p> </div>		
	<p>Distributed by</p>  <p>Pfizer Labs Division of Pfizer Inc, NY, NY 10017</p>		

Name _____	ID _____
Drug _____	Conc _____
Dose/vol _____	Route _____
Date/Time _____	Exp. _____

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