Simulations for Clinical Excellence in Nursing Services

Infusion: IV Start and Blood

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Infusion: IV Start and Blood
Instructor Information

**Patient Name:** Manuel Garcia
**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 blood 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

**Scenario Prologue:**
- Seventy-seven (77) year old male four (4) hours status post colon resection for removal of a sigmoid colon mass 4 hours ago by Dr. Moore. Vital signs are stable and he is on 2 liters of oxygen via nasal cannula. He has a midline abdominal incision with a dry sterile dressing. Bowel sounds are hypoactive. His hemoglobin was 6.8 mg/dL and hematocrit 21 mg/dL. Dr. Moore is aware. He just examined him and is entering orders. His IV needs to be restarted.
- The simulation begins when the learners are receiving report from the nurse

**Patient Information:**
- **General:** Sleepy but arousable
- **Weight/Height:** 75kg (165lbs) 172.7cm (68in)
- **Vital Signs:** BP 96/60, Temp 97.3, HR 100, RR 22, O2 Sat 95%
- **Pain:** 6/10 abdominal incision
- **Neurological:** Unremarkable
- **Respiratory:** Eupneic
- **Cardiac:** Unremarkable
- **Gastrointestinal:** Bowel sounds hypoactive
- **Genitourinary:** Unremarkable
- **Musculoskeletal:** Unremarkable
- **Skin:** Pale. Midline abdominal dressing dry and intact
- **Past Medical History:** Hypertension, hemorrhoids, constipation, and rectal bleeding
- **Past Surgical History:** Hemorrhoidectomy

<table>
<thead>
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**Learning Objectives**

![SimLEARN](https://example.com/simlearn.png)
Patient Name: Manuel Garcia
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 access and administer blood transfusion therapy

Pre-Session Activities:
- Complete pertinent training on initiating intravenous blood transfusion therapy
- Review any policies and protocols on initiating blood transfusion therapy

Potential Systems Explored:
- What standardized protocols currently exist to establish safety with initiating and monitoring blood transfusion therapy?
- When should the healthcare provider consider stopping blood transfusion therapy?
- What factors are important to consider prior to initiating blood transfusion therapy?
- Which staff members are qualified to initiate blood transfusion therapy?
- How long should the outpatient be monitored after a blood transfusion before discharge?
- What facility specific documentation is required when initiating and/or monitoring blood transfusion therapy?
- What are potential contraindications and complications for the outpatient receiving blood transfusion therapy?

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 therapy
a. **K**- Demonstrate knowledge of facility specific intravenous therapy protocol
   **S**- Initiate intravenous access using aseptic technique per facility protocol

Learning Objective 2: Demonstrate the steps required to initiate intravenous blood infusion therapy
a. **K**- Discuss facility specific protocol for the outpatient receiving blood transfusion therapy
   **S**- Perform facility specific patient identification for the outpatient receiving a blood transfusion
b. **K**- Identify and collect supplies necessary for blood transfusion therapy
   **S**- Initiate blood transfusion therapy per protocol

Learning Objective 3: Demonstrate effective communication when caring for the patient receiving blood transfusion therapy
a. **S**- Perform patient/family teaching in a language and educational level they can understand
   **A**- Stress the importance of following instructions to the patient/family with a calm demeanor
b. **S**- Complete facility specific documentation of actions taken for the outpatient receiving blood transfusion therapy

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 patient education
3. Perform hand hygiene
4. Put on PPE
5. Check for allergies
6. Use aseptic technique
7. Prime blood administration tubing with normal saline without fluid dripping from the end
8. Initiate IV with a catheter no smaller than a 20 gauge, secure, and label per policy
9. Obtain baseline vital signs prior to obtaining the blood
10. Perform blood verification per policy with another registered nurse per policy
11. Initiate infusion at 5 mL/min for 15 minutes or per policy (utilize pump if required)
12. Inform the patient to notify the nurse of any adverse reactions
13. Document what was done and how patient tolerated it per facility protocol
Simulation Set-Up

**Patient Name:** Manuel Garcia (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 inpatient room

**Patient Preparation:**
- The patient is wearing a hospital gown (inpatient)
- Midline abdominal dressing (ABD)
- Monitoring Device 3 Wave form
  - ECG Sinus rhythm, O2 Sat 95%, BP 110/72, Temp 97.3, HR 100, RR 22

**Have the following equipment/supplies available:**
- Gloves
- IV catheters (22g or 20g)
- IV start supplies (tourniquet, tape, clear occlusive dressing, label, antiseptic skin prep, 2x2 gauze pads, etc.)
- Blood administration tubing
- 500 mL bag of normal saline
- Medication label for intravenous (IV) Ceftriaxone 2 G
- Unit of blood (see label in supplements)
- IV saline flush
- ABD dressing
- Surgical tape
- IV pump (if applicable)
- Bedside table

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 and blood bank bands for the ALS Mannequin and task trainer (if applicable)
- Nurses notes
- Orders
- Blood label
- Blood transfusion consent
- ZZ test patient/Demo patient in CPRS (if desired)
**Advanced Life Support Manikin (ALS)**

**Initial State:**
- Mental Status: Sleep but arousable
- Sp02: 95%
- BP: 96/60
- HR: 100
- RR: 22
- Eyes: Slightly open
- Pain level: 6/10 abdomen
- Skin: Pale

**Did not...**
- **Did not...**
  - Perform patient education
  - Verify orders and transfusion consent
  - Gather appropriate supplies (gauge of needle, blood administration tubing, normal saline IV fluid, etc.)
  - Patient states “Wait! Slow down!”

**Did not...**
- **Did not...**
  - Perform hand hygiene
  - Ask patient about allergies
  - Use aseptic technique to initiate IV
  - Allow site to dry; label IV site
  - Patient states “You are making me nervous the way you rush things.”

**Did not...**
- **Did not...**
  - Verify blood information with another registered nurse
  - Use aseptic technique/wear gloves
  - Initiate blood transfusion slow rate (5mL/min) per policy and stay with patient for first 15 minutes
  - Inform patient to notify nurse of adverse reaction right away
  - Patient states “Wow! You move quickly. The other nurses took so many other steps. I wonder why.”

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**Flowchart**

Seventy-seven (77) year old male four (4) hours status post colon resection for removal of a sigmoid colon mass 4 hours ago by Dr. Moore. Vital signs are stable and he is on 2 liters of oxygen via nasal cannula. He has a midline abdominal incision with a dry sterile dressing. Bowel sounds are hypoactive. His hemoglobin was 6.8 mg/dL and hematocrit 21 mg/dL. Dr. Moore is aware. He just examined him and is entering orders. His IV needs to be restarted.

- **Verifies the order**
- **Identifies patient using facility specific patient identifiers**
- **Performs patient education**
- **Verifies consent form blood transfusion is on the chart**
- **Gathers supplies for IV start and blood transfusion (selects the 20 G IV catheter)**

- **Performs hand hygiene and puts on gloves**
- **Inspects and prepares IV start equipment**
- **Primes blood administration set with normal saline without letting fluid drip from the end**
- **Checks for allergies**
- **Applies tourniquet, cleanses site without contaminating the site; allows site to dry**
- **Initiates IV using aseptic technique**
- **Connects tubing**
- **Labels IV site per protocol**
- **Removes gloves and performs hand hygiene**

- **Obtains baseline vital signs**
- **Obtains unit of blood with facility specific documentation**
- **Verifies blood information with another licensed individual at the bedside (patient identifiers, type of blood product, unit number, compare blood group on patient’s blood band with blood product, volume, and expiration date) per facility policy**
- **Spikes blood with blood set already connected to patient using aseptic technique**
- **Initiates transfusion at 5 mL/min for 1st 15 minutes**
- **Remains with the patient for the first 15 minutes or per protocol**
- **Advises the patient to notify the nurse of any adverse reactions right away**
- **Indicates transfusion start and finish time within 4 hours and when vital signs are due**

- **Obtains post transfusion vital signs when complete and compares with baseline vitals**
- **Discontinues IV and applies pressure and dry sterile dressing per facility protocol**
- **Removes gloves and performs hand hygiene**
- **Completes documentation to include what was done and how the patient tolerated it**

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**Critical Actions/Debriefing Points:**
- Verify orders
- Perform patient education
- Perform hand hygiene
- Put on gloves
- Prime blood administration tubing with normal saline without fluid dripping from the end
- Check for allergies
- Initiate IV with a catheter no smaller than a 20 gauge, secure, and label using aseptic technique
- Obtain baseline vital signs prior to obtaining the blood
- Perform blood verification per policy with another registered nurse per policy
- Initiate infusion at 5 mL/min for 15 minutes or per policy (utilize pump if required)
- Inform the patient to notify the nurse of any adverse reactions
- Document what was done and how patient tolerated it per facility protocol
Supplements

Confederate Scripts
Confederate Name Tags
Patient Identification and Blood Band
Nurses Notes
Orders
Blood Label
Consent
Confederate Scripts

Manuel Garcia: Patient

- **Medical/Surgical History**: Hypertension, hemorrhoids, constipation, and rectal bleeding hemorrhoidectomy
- **Medications**: Lisinopril 2.5 mg one time a day and docusate sodium 100mg one time 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; allow site to dry; 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.”
Simulations for Clinical Excellence in Nursing Services

Patient Identification Band and Blood Band

**Patient Identification Bracelet**
- Dr. G. Moore
- Age: 77
- Allergic: Sulfa

**Blood Bank**
- Garcia, Manuel
- SS #: 123-45-6789
- Type: A Positive
- Unit #: 63278

9 of 13
Chief Complaint: Seventy-seven (77) year old male four (4) hours status post colon resection for removal of a sigmoid colon mass 4 hours ago by Dr. Moore. Vital signs are stable and he is on 2 liters of oxygen via nasal cannula. He has a midline abdominal incision with a dry sterile dressing. Bowel sounds are hypoactive. His hemoglobin was 6.8 mg/dL and hematocrit 21 mg/dL. Dr. Moore is aware. He just examined him and is entering orders. His IV was not working and needs to be restarted.

Active Problems: S/P colon resection for removal of sigmoid colon mass.

Patient information:
- **General**: Sleepy but arousable
- **Weight/Height**: 75kg (165lbs) 172.7cm (68in)
- **Vital Signs**: BP 96/60, Temp 97.3, HR 100, RR 22, O2 Sat 95%
- **Pain**: 6/10 abdominal incision
- **Neurological**: Unremarkable
- **Respiratory**: Eupneic
- **Cardiac**: Unremarkable
- **Gastrointestinal**: Bowel sounds hypoactive
- **Genitourinary**: Unremarkable
- **Musculoskeletal**: Unremarkable
- **Skin**: Pale. Midline abdominal dressing dry and intact
- **Past Medical History**: Hypertension, hemorrhoids, constipation, and rectal bleeding
- **Past Surgical History**: Hemorrhoidectomy

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/

**Medications:**
- Lisinopril 2.5 mg one time a day
- Docusate sodium 100mg one time a day

**Allergies:**
- Sulfa
### Orders

#### Patient Information

<table>
<thead>
<tr>
<th>Name</th>
<th>Garcia, Manuel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr.</td>
<td>M. Santana</td>
</tr>
<tr>
<td>Age</td>
<td>77</td>
</tr>
<tr>
<td>Social Security</td>
<td>#: 123-45-6789</td>
</tr>
<tr>
<td>Allergies</td>
<td>Sulfa</td>
</tr>
<tr>
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#### Diagnosis
- Colon mass

#### Condition
- Stable

#### Orders
- Consent for blood transfusion
- Transfuse 2 units of packed red blood cells

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**DO NOT WRITE IN THIS SPACE**
**Blood Label**

<table>
<thead>
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<tbody>
<tr>
<td>SS# 123-45-6789</td>
</tr>
<tr>
<td>Type: A Positive</td>
</tr>
<tr>
<td>Unit # 63278</td>
</tr>
<tr>
<td>Expires: Tomorrow</td>
</tr>
<tr>
<td>Volume: 220 mL</td>
</tr>
</tbody>
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**Baseline vital signs:**  
BP 97/60; Temp 97.3; HR 100; Resp 22; SpO2: 95%

**Verified:** Nurse #1 **James Harris, RN**  
#2 **Mable Scott, RN**

**Started:** 15 minutes ago  
Complete: ____________
References


