

Detailed Faculty Guide: NUR 315 Rashid Ahmed vSim

Prior to vSim Experience

1. Groups will independently complete the pre-quiz and vSim scenario for Rashid Ahmed by 2359 the night before their scheduled on-campus session.
2. Instructor will review vSim and quiz results prior to each group session. Observe strengths, weaknesses, trends, and misunderstandings, and review with group at the beginning of session.

Schedule for vSim Experience

This is a general guide for organizing the 3 ½-hour vSim sessions. Students generally enjoy spending time working on the whiteboards, so have multiple dry-erase markers for various activities.

TIME	ACTIVITY
5 min	WELCOME • Greet students in assigned room. Introductions.
40 min	PREBRIEF (See below) • ORIENTATION OF ACTIVITIES ○ Provide overview of session agenda and objectives ○ Check to ensure pre-work is done by each student ○ Explain expectations of vSim scenario (participate as a group) • CONTENT REVIEW ○ Discuss key findings of assigned diagnoses and medications ○ Write brief summary/definitions on board ○ Discuss pre-brief questions/considerations • vSIM PRE-QUIZ ○ Complete quiz as a group ○ Discuss answers
80 min	vSIM GROUP ACTIVITY (See below) • Launch vSIM Fundamentals of Nursing Care for Rashid Ahmed ○ Write orders on board (check off completed orders and orders students complete during vSim scenario) ○ Write abnormal assessment findings on board during simulated assessment (to be grouped later during concept mapping) ○ Explore appropriate next steps to take. Focus on prioritization. ○ During vSim, complete nurse to provider ISBARR ▪ <i>See Detailed Faculty Guide, but have students work in pairs, writing various components of ISBARR on whiteboard</i>
15 min	BREAK

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70 min	DEBRIEF • DISCUSSION QUESTIONS ○ Debrief questions (see Detailed Faculty Guide) ○ Concept Mapping • vSIM POST-QUIZ ○ Complete quiz as a group ○ Discuss answers • GROUP DISCUSSION ○ Discuss ISBARR versus IPASS • SUMMARY ○ Explain post vSim assignment. ○ Video of IPASS handoff report to next shift RN ○ Video is < 4 minutes. Specific rubric on Moodle.
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Pre-Brief Questions with Students

1. What are the normal ranges for potassium and sodium? What values represent critical serum levels?

Potassium (K⁺) major role in cardiac function; also important for neuromuscular function; regulated &

excreted by kidneys (to maintain K⁺ balance the renal system must function).

Normal range: Serum Potassium 3.5 to 5 mEq/L

Critical value: Serum Potassium <3.5 mEq/L (life threatening if < 2.5 mEq/L).

Clinical application: *The American Heart Association practice standards recommend continuous ECG monitoring (telemetry) for patients with a K⁺ <3.0 (Sandau et al., 2017).*

Pathophysiology of Hypokalemia (K⁺ below 3.5 mEq/L)

- Potassium is the major cation (98%) in intracellular fluid.
- Slight deviations in serum levels can produce profound clinical consequences.
- Deviations result from deficient intake of potassium, increased excretion of potassium, or a shift of potassium from extracellular to intracellular space.
- ***Potassium imbalance can lead to muscle weakness and flaccid paralysis because of an ionic imbalance in neuromuscular tissue excitability.

Sodium (Na⁺) major role in controlling body water; also important for muscle contraction & transmission

of nerve impulses; regulated by ADH, thirst, renin-angiotensin-aldosterone system.

Normal range: Serum Sodium 135 to 145

Critical value: Serum Sodium <135 mEq/L (life threatening if <120 mEq/L);
Urine specific gravity <1.010.

Clinical application: *The nurse applies seizure pads to the bedrails for critically low sodium.*

Pathophysiology of Hyponatremia (Na⁺ below 135 mEq/L)

- Sodium is the major cation (90%) in extracellular fluid.
- During repolarization, the sodium-potassium pump continually shifts sodium into the cells and potassium out of the cells; the reverse occurs during depolarization.
- Mechanism of imbalance may involve:
 - a decrease in total body water & greater decrease in total body sodium (hypovolemic hyponatremia)
 - an increase in total body water with normal total body sodium (euvolemic hyponatremia)

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- an increase in total body sodium & greater increase in total body water (hypervolemic hyponatremia)
 - shifting of water from the intracellular to extracellular compartment with resultant dilution of sodium (redistributive hyponatremia)
 - dilution by excessive proteins or lipids with the total body water and total body sodium unchanged (pseudohyponatremia).
2. What are time parameters for calling the provider to report a critical lab?
5 minutes? 10 minutes? 15 minutes?
 3. What guided your decisions in #2?
RN role; Patient Safety; Facility Policy
 4. What are priority nursing assessments, interventions, and patient teaching needs? Explain rationale.
Assessments regarding current condition: VS; heart/lung; skin/mucous mem; neuro/LOC; pain; I&O; wt; IV
Interventions: monitor condition/labs; give meds; safety/seizure precautions; psych support; teach
Patient teaching: dehydration; I&O; safety; medications
 5. Identify cultural considerations for Rashid Ahmed. Is it helpful to know the patient is Muslim? Why or why not?
 - a. Remember race is a social construct, but if ethnicity or religion may impact patient assessment or care, then it's very appropriate to address.
 - b. How would you promote patient health?
 - i. Psychosocial (family, religion, hospitalization, body image; ADLs); Dietary; Pain management
 - c. Ask about dietary preferences. How might you need to adapt your patient's diet (even for clear liquids) if your patient identified as:
 - i. Muslim: no pork, which is in Jello
 - ii. Hindu: No beef – beef broth?
 - iii. Seventh Day Adventist – no caffeine.

Pre-Simulation Quiz

(Complete quiz as a group, discussing misconceptions as needed)

1. Which of the following concerning the measurement of intake and output is true for a patient admitted for dehydration?
 - a. **When possible, intake and output should be measured rather than estimated.**
 - b. Health care agencies have adopted standard volumes for common beverage containers.
 - c. Only foods that are consumed as liquids are included in intake calculations.
 - d. Liquid medications are not considered when calculating intake.

Rationale: Intake and output should be measured rather than estimated whenever possible in order to achieve accuracy. All foods that are liquid at room temperature, and any liquid medications, are included in the calculation of intake. While there can appear to be a standardization, volumes for common food containers can vary, and so using agency designation of specific volumes is necessary.
2. Hyponatremia is associated with a decrease of which electrolyte?
 - a. **Sodium**

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- b. Potassium
- c. Chloride
- d. Phosphorus

Rationale: Hyponatremia is a result of an imbalance in the electrolyte sodium. Hypokalemia results when there is a decrease in potassium levels; hypochloremia is associated with a decrease in chloride levels; hypophosphatemia is associated with a decrease in phosphorus levels.

3. Which diagnostic test serves as the basis for determining acid-base imbalances?
- a. Specific gravity of urine
 - b. Arterial blood gas (ABG)**
 - c. Blood urea nitrogen (BUN)
 - d. Serum potassium

Rationale: Arterial blood gas studies are used to assess and treat acid-base imbalance disorders. Specific gravity of urine and blood urea nitrogen may be ordered to evaluate some aspect of urinary function, and serum potassium is related to electrolyte status.

4. What determines the acidity of substances such as body fluids?
- a. The amount of available HCO_3
 - b. The fluid's pH measurement
 - c. The body's ability to trigger chemical reactions
 - d. The number of existing H^+ ions**

Rationale: Acidity or alkalinity of a solution is determined by its concentration of hydrogen ions (H^+). HCO_3 (bicarbonate base) is a by-product of a breakdown of H_2CO_3 . The term pH is the measure used to describe acid-base balance. The body is normally associated with a variety of different chemical reactions.

5. Hypokalemia is confirmed by what serum blood result?
- a. Sodium 146 mEq/L
 - b. Potassium 3.0 mEq/L**
 - c. Sodium 133 mEq/L
 - d. Potassium 5.5 mEq/L

Rationale: Hypokalemia is confirmed by a serum potassium level of <3.5 mEq/L. Hyperkalemia is an excess of potassium (>5 mEq/L), hypernatremia is an excess of sodium (>145 mEq/L), and hyponatremia is a deficiency of sodium (<135 mEq/L).

6. The nurse is completing the physician's orders by preparing the patient's IV fluid therapy. When infusing supplemental potassium, the nurse knows that checking which of the following is the first priority before beginning the infusion?
- a. Urine output
 - b. Infusion device
 - c. Potassium level**
 - d. Tubing date

Rationale: The potassium level should be checked before beginning the infusion. The physician's order may need to be changed if the patient's potassium is elevated. A potassium level out of the normal range is associated with dysrhythmias. Checking the infusion device or tubing date is not the first priority. Urine output can be checked during the infusion.

7. What pathology is responsible for metabolic acidosis?
- a. An excess of HCO_3 and/or a decrease in H^+ ions
 - b. An increase in CO_2
 - c. A decrease in carbonic acid
 - d. A decrease in bicarbonate or an increase in hydrogen ions**

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Rationale: Metabolic acidosis is a proportionate deficit of bicarbonate in the extracellular fluid. This can occur as a result of an increase in acid components (H^+) or a loss of bicarbonate. An excess of HCO_3^- and/or a decrease in H^+ ions result in metabolic alkalosis. The poor excretion of CO_2 is associated with respiratory acidosis. A decrease of carbonic acid is a sign of respiratory alkalosis.

8. When assessing a patient's altered fluid status, the nurse expects to assess/review which of the following? (Select all that apply.)
- a. Hematocrit and electrolytes
 - b. Vital signs and skin turgor
 - c. Capillary refill and mucous membranes
 - d. Fluid intake and urine output

Rationale: The nurse should assess the hematocrit and electrolytes to determine imbalances and to facilitate appropriate interventions. Review of the vital signs, skin turgor, capillary refill, and mucous membranes will help the nurse to determine the physiological response to the altered fluid status. Assessment of fluid intake and output is also essential in determining the current patient status because intake and output measurements facilitate the achievement of optimal fluid status and guide intravenous therapy.

vSim Scenario Steps

Don't read out loud – just FYI. This case presents Rashid Ahmed, who was admitted this morning to the Medical Unit with a diagnosis of dehydration and hypokalemia. He has been experiencing nausea, vomiting, and diarrhea for the past 48 hours after returning home from international travel. Students will be expected to perform an assessment of fluid volume status and recognize clinical manifestations of hypokalemia and hyponatremia. They will need to adjust the rate of the IV solution, identify persistent hypokalemia in the labs, call the provider, and receive and perform STAT orders.

Areas of patient education for this scenario include intake and output measurement, safety, and medication. Most of the body's potassium is stored in the intracellular compartment; serum potassium levels are very low, and variations outside of the normal narrow range of 3.5-5.0 mEq/L can lead to significant and life-threatening complications. Hypokalemia typically results from excessive potassium loss, inadequate intake, or increased potassium uptake by the cells. Excessive losses are seen with vomiting and diarrhea. Assess pulse for increasing tachycardia and irregularity. The patient may be placed on a cardiac monitor if indicated. Assess for neurological decline, changes in LOC, and seizures. Hypokalemia can lead to paralysis and loss of respiratory function, so continue to monitor SpO₂ levels, respiratory rate and effort, and overall muscle strength. When monitoring a patient's intake and output, the patient, family, and all caregivers must be alert to the need to measure all fluids entering and leaving the body.

ISBARR Report on Rashid Ahmed – Part of vSim. Just included here for FYI.

S: Mr. Rashid Ahmed is a 50-year-old male who was admitted to the ED at 0400 this morning with a diagnosis of dehydration and hypokalemia. We are monitoring his fluid and electrolyte status closely. I have just completed the admission assessment and received admission orders.

B: Three days ago, he developed abdominal cramping, nausea, vomiting, and severe diarrhea 12 hours after returning home from international travel. These symptoms have continued for 2 days, and food and fluid intake has been minimal to none since the symptoms began. Last night before admission, he nearly passed out while going to the bathroom around 0300. Mr. Ahmed was brought to the ED by his wife, and reported dizziness, weakness, fever, and continued nausea. He received 4mg ondansetron IV for nausea in the ED which was effective. Lab work was drawn and is available in the patient chart, and urine and stool samples have been sent to the lab.

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A: Mr. Ahmed is drowsy but oriented **x3**, appears ill, and is **irritable**. He reports having a headache which he rates a 4 on a scale of 0-10, but he hasn't wanted anything for it. Admission weight was 73.5kg (162lb), which the patient reports to be about 4.5kg (10lb) less than usual. Vital signs were obtained every 4 hours since admission heart rate is **tachycardic** and irregular. He is now tolerating clear liquids and states that his nausea has resolved. The patient had one **small** liquid stool in the morning and **voided** around noon. He has not experienced emesis since admission. A Morse Fall Scale has been completed with a total result of 30. An infusion with 0.9% sodium chloride with 20mEq KCl is running at 150mL/hr. R: Vital signs check is up, and Mr. Ahmed has new lab results that should be reviewed. Call the provider if the potassium is still low. There are new orders for the fluid rate. Mr. Ahmed also requires patient education on safety, his new medications, and intake and output measurement.

Abnormal Labs: 0430 ABG: pH (7.31); HCO^3 (15); PaCO_2 (35); Hct (55); K^+ (2.9); Na (130); 0430 CBC: WBC (21); 1430 BMP K^+ (3.1); HCO^3 (20); BUN (22); 0530 Urinalysis urine osmolality (1450); urine specific gravity (1.089)

MAR:

- Azithromycin 500mg in 250mL 0.9% sodium chloride IV infusion (DISCONTINUED) (administered at 0430)
- Azithromycin 500mg orally every 8 hours (0800): NOTE: Start tomorrow
- Ondansetron 4mg IV push once (DISCONTINUED) (administered at 0430)
- Ondansetron 4mg sublingually every 6 hours
 - For discussion: when could Mr. Ahmed have a dose of ondansetron? What do you need to consider when you have a discontinued and new order for the same med, but a different route?
 - For discussion: What is this order missing (PRN reason). Included in the order, but not the MAR
 - Is an oral disintegrating tablet the same as sublingual? Discuss slight discrepancy between order and MAR.
- Acetaminophen 650mg orally every 6 hours PRN fever as ordered
 - For discussion: Order has specific temperature – should this be on the MAR?
- 0.9% sodium chloride 1000mL bolus (DISCONTINUED) (administered at 0430)
- 0.9% sodium chloride 1000mL with 20mEq KCL at 150mL/hr (DISCONTINUED) (administered at 0445, verified at 1430) Will need to stop during scenario
- 0.9% sodium chloride 1000mL with 20mEq KCL at 80mL/hr Will need to initiate during scenario

Provider's Orders

Emergency Department Orders (0400)

- 0.9% sodium chloride 1000mL over an hour ✓
- 1000mL 0.9% sodium chloride with 20mEq KCL to run continuously at 150mL/hr ✓
- Check orthostatic blood pressure ✓
- Labs: BMP, ABGs, CBC, urinalysis, urine osmolality, stool for ova and parasites ✓
 - Repeat BMP in 2 hours then every 4 hours ✓
- Medications:
 - Potassium chloride 40mEq orally once ✓
 - Ondansetron 4mg IV push once PRN nausea ✓
 - Azithromycin 500mg in 250mL 0.9% sodium chloride IV infusion over 60 minutes ✓

Orders (1600)

- Admit to Medical Unit
- Activity: Bathroom privileges, up with assistance

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- VS every 4hr
- Check orthostatic BP every morning
- Record intake and output every 8 hours
- Daily weights
- Diet: Clear liquids, progress to regular as tolerated
- 1000mL 0.9% sodium chloride with 20mEq KCL to run continuously at 80mL/hr
- Medications:
 - Azithromycin 500mg orally every 8 hours (0800): NOTE: Start tomorrow
 - Ondansetron 4mg oral disintegrating tablet PRN nausea
 - Acetaminophen 650mg orally every 6 hours PRN temp above 102.2F (39.0C)
- Labs: ABGs and BMP tomorrow morning
- Call Orders:
 - Serum potassium below 3.2 mEq/L or change on ECG (*will need to call for this during the scenario*)

STEPS FOR vSIM SCENARIO

(items in bold are required for a green checkmark)

1. Review the patient's ISBARR, information, patient log, **diagnostics**, clinical observations (VS last completed at 1200), **MAR**, radiology information, **orders**, **I&O**.
2. **Wash hands (Safety measures)**
3. **Introduce yourself (Safety measures)**
4. **Identify the patient (Safety measures)**
5. Check VS (Assessments -- VS)
 - **Temperature (101F / 38.5 C)**
 - **BP (100/72)**
 - **Pulse Oximetry (96%)**
 - **Respiratory Rate (29bpm, chest is moving equally)**
 - **Radial pulse (strong, 120bpm, irregular)**
 - Disconnect pulse oximeter
6. Offer sip of water (*Interventions – Comfort Measures*)
7. Assessment (Assessments):
 - Patient's skin (tenting, warm, dry) (*Integumentary Assessments*)
 - **Pain (headache, stomach cramps, 4/10, for 2-3 days) (Ask about: Pain Assessment)**
 - **Auscultate heart (irregular, no abnormal heart sounds) (Auscultate)**
 - **Auscultate lung sounds (clear and equal bilaterally) (Auscultate)**
 - Auscultate abdomen (hyperactive) (*Auscultate*)
 - **IV site (Assessments – Cardiovascular)**
 - *Discussion point: vSim says to use gloves during this procedure. Is this necessary? Why or why not? (We teach this is not necessary since you are not exposed to body fluids.)*
 - **Gloves (Safety Measures)**
 - Wash hands (*Safety Measures*)
 - Capillary refill time (4 seconds) (*Assessments – Cardiovascular*)
 - **Urinary output (70mL of dark amber urine) (Assessments – Gastrointestinal & Genitourinary Assessments)**
 - **Put on gloves (Safety Measures)**
 - **Wash hands (Safety Measures)**
 - **Mucous membranes (dry) (Head to Toe Assessments)**

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- **Neurological status (reduced muscle strength in arms and legs) (*Neurological Assessment*)**
 - How patient feels (Multiple questions appropriate) (*Communication – Current Illness*)
 - LOC (date, location, year) (*Communication – Ask About: Orientation*)
- 8. Call Provider (get updated medications for hypokalemia) (*Call for Assistance*)**
- PAUSE VSIM AND WORK THROUGH NURSE/PROVIDER ISBARR**
- Have students work in pairs to write assigned elements of ISBARR on whiteboard
 - Talk through ISBARR as a big group – is the right information included in each element?

EXAMPLE CALL to PROVIDER at 1600 with K result (In this scenario, let's say that the provider has already seen pt once)

I: Hi this is Anna the RN working at Dubai International Hospital taking care of Rashid Ahmed in room 1.

S: I am calling because of continued hypokalemia.

B: His last K lab at 1600 his result was 3.1, and I have an order to update you with a potassium level less than 3.2. He has current orders for 0.9% sodium chloride 1000mL with 20mEq KCl at 80mL/hr (decreased from 150mL/hr). He also had a onetime dose of potassium chloride 40mEq orally in the ED this morning.

A: He has nausea which is currently manageable, and will only take a few sips of water with encouragement because he is nervous about having another emesis.

R: Would you like to order additional oral potassium since the patient's nausea is OK right now? Or would you like to order IV replacement?

R: [Pause, repeat back order.]

9. Review MAR for new orders
- 40mEq potassium 1 table by mouth once
 - 10mEq of KCL in 0.9% sodium chloride 100mL IV. Infuse over 60 minutes.
- 10. Assess for allergies (*Safety Measures*)**
11. Administer medications (*Drugs & IV Management*)
- Change IV Rate
 - **Compare medication label with MAR**
 - Stop infusion of 0.9% sodium chloride with 20 mEq KCL.
 - Scan Medication Label
 - **Verify Dose with Another Nurse**
 - *Discussion point. vSim says to double check the medication with another nurse here, and to ensure you incorporate this into your practice to reduce medication errors and potential significant harm to patients. Is this necessary?*
 - Administer
 - 40mEq potassium 1 table by mouth once
 - Select drugs and fluids (Potassium chloride 40mEq, oral)
 - Scan Medication Label
 - **Verify Dose with Another Nurse**
 - *Discussion point. vSim says to double check the medication with another nurse here, and to ensure you incorporate this into your practice to reduce medication errors and potential significant harm to patients. Is this necessary?*
 - Administer

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- 10meQ of KCL in 0.9% sodium chloride 100mL IV. Infuse over 60 minutes.
 - Select drugs and fluids (0.9% sodium chloride w/ 10mEq KCl, IV; 100mL/hr 100mL)
 - Scan Medication Label
 - **Administer**

12. **Educate: intake and output; dehydration; activities, safety, and fall risk; medication**
(*Communication – Educate Patient*)

13. **Patient handoff**

vSIM ISBARR Handoff Answers

- **Situation:** he is dehydrated with low potassium level
- **Background:** three days ago, he developed abdominal cramping; he is a 50-year-old-male; Mr. Ahmed has no previously known allergies; He reported dizziness, weakness, fever, and continued nausea.
- **Assessment:** Mr. Ahmed is still drowsy but oriented x3; he has had some stomach cramps and headache; respiratory rate is now 25; he is maintaining O2 saturations at 95% on room air; heart rate is 122 and irregular; he is now tolerating clear liquids; temperature is 101.1 F (38.4 C).
- **Recommendation:** Continue to monitor vital signs every 4 hours; called provider when the next labs are ready.

BREAK (15 MINUTES)

Debrief Questions for Students

1. How did the simulated experience of Rashid Ahmed's case make you feel?
2. Group discussion to share real-life experiences. Discuss how vSim is different/similar to real life.
3. In the first ISBARR by the nurse giving handoff report, use your clinical judgment to comment on what is communicated well versus not well. (Areas are highlighted that are not specific or subjective.) For example:
 - a. **How low was the potassium? Be specific – “low” or “we’re closely monitoring his fluid and electrolyte status” is not very helpful. Be objective and specific.**
 - b. **What was the patient's actual heart rate? Be specific – “fast and irregular” does not let us compare assessment data.**
4. What priority problem(s) did you identify for Rashid Ahmed? What information led to identification of the priority problems? **Concept map as a group if needed/desired.**
5. Describe how you would apply the knowledge and skills that you obtained in Rashid Ahmed's case to an actual patient care situation.

PostSimulation Quiz

(Complete quiz as a group, discussing misconceptions as needed)

1. (After reading provided ISBARR): The nurse begins caring for Rashid Ahmed, who was admitted from the emergency department for dehydration and hypokalemia. The nurse recognizes which of the following assessment finding(s) as related to his dehydration? (Select all that apply.)
 - a. **Decreased weight**
 - b. Increased urinary output
 - c. **Dizziness and weakness**
 - d. Hypertension (BP 150/90)
 - e. **Decreased elasticity (skin turgor)**
 - f. Moist mucous membranes

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Rationale: Dehydration can result in weight loss. Weight loss of 1 kg is equivalent to approximately 1 L of fluid loss. Clients with dehydration may complain of weakness and dizziness. A loss of elasticity during skin turgor assessment may indicate a change in hydration status. Dehydrated clients may also exhibit a decrease in urine output, hypotension, and dry mucous membranes. Clients diagnosed with dehydration will not typically experience increased urine output, hypertension, or moist mucous membranes.

2. The nurse begins Rashid Ahmed's nursing assessment. The nurse understands which of the following are significant when assessing for the presence of orthostatic hypotension? (Select all that apply.)
- a. Assessing a pulse rate increase of 10 beats per minute as soon as the client stands up
 - b. Assessing a pulse of 90 when the client is lying down after consuming caffeine
 - c. **Assessing a systolic blood pressure drop of 20mm Hg or more after the client has stood for 2 minutes**
 - d. **Assessing a pulse rate of 30 beats per minute or more after the client has stood for 2 minutes**
 - e. **Assessing a diastolic drop of 10mm Hg after the client has stood for 2 minutes**
 - f. Assessing a respiratory rate increase of 10 breaths per minute when the client is standing

Rationale: Caffeine consumption can affect a client's pulse rate and/or blood pressure. To assess orthostatic blood pressure, the nurse asks the client to stand for 2 to 3 minutes to determine a change of blood pressure. A fall in systolic pressure ≥ 20 mm Hg (or a fall in diastolic blood pressure ≥ 10 mm Hg) from the lying to sitting or standing positions usually indicates a fluid volume deficit that is a cause of orthostatic hypotension. A pulse rate increase of 30 beats per minute or more indicates a positive postural change. A change in the respiratory rate does not indicate a fluid volume deficit.

3. After completing the initial assessment, the nurse recognizes Rashid Ahmed's **hypokalemia of 3.1mEq/L** as a priority finding, which would require the following additional intervention: **call to provider.**
- Rationale:** The potassium level remains outside of normal range, with an irregular heart rhythm. The remainder of the lab results are expected findings associated with his current diagnosis of gastroenteritis.
4. Rashid Ahmed requires education regarding fall prevention and safety. Which of the following client response(s) indicate further teaching is required? (Select all that apply.)
- a. "I will use the call button when I need to use the restroom."
 - b. "My significant other can help retrieve my urinal."
 - c. **"I will walk slowly to the bathroom."**
 - d. **"I will wear my personal socks when ambulating."**
 - e. "I will sit on the side of bed before attempting to stand."
 - f. **"I don't need my side rails while I am in bed."**

Rationale: The client requires additional fall prevention teaching when verbalizing the following: attempting to walk independently, utilizing regular socks, and keeping side rails down. Walking slowly will not eliminate the risk of a fall. Regular socks do not provide the nonslip advantage provided by nonskid socks. Side rails will protect the client from falling out of bed if dizziness resumes. Using the call button, asking someone else to

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retrieve a urinal, and sitting on the side of the bed before attempting to stand are all beneficial.

5. The nurse is providing care for Rashid Ahmed, who is receiving continuous IV fluids for dehydration. The nurse must first secure what information in preparation for administering the new order of IV potassium? (Select all that apply.)
- a. **The status of the client's IV reservoir**
 - b. The client's blood pressure
 - c. The client's activity level
 - d. **The volume of the potassium piggyback**
 - e. **The pump designated for infusion**
 - f. **The medication compatibility**

Rationale: The nurse assesses the status of the client's IV reservoir to ensure it is patent, secure, and without signs of infection or infiltration. If any issues are present, the medication may not infuse properly or could contribute to the development of IV complications. Medication compatibility is essential when administering any IV medications, such as potassium. The volume of the piggyback is necessary for programming the pump. A pump is required for infusing potassium. Although vital signs are monitored frequently during the administration of IV potassium, blood pressure status would not impact the nurse's actions related to this infusion. Information about the client's activity level is not essential when preparing for the IV potassium administration.

6. The nurse is assessing Rashid Ahmed after admission to the medical unit. The nurse understands which of the following are expected outcomes following the administration of isotonic IV fluid? (Select all that apply.)
- a. **Blood pressure values increase**
 - b. Heart rate of 100 resumes a normal rhythm
 - c. Capillary refill is greater than 3 seconds
 - d. **Urine output increases**
 - e. Weak peripheral pulses are present
 - f. Pain scale is reported as 4/10

Rationale: An increase in blood pressure and an increase in urine output indicate a restoration of fluid status. The irregular heart rhythm was related to the electrolyte imbalances. Capillary refill of greater than 3 seconds and weak peripheral pulses are related to dehydration that is not resolved. Pain is not related to the administration of IV fluid.

Group Discussion: ISBARR versus I-PASS

1. Why is it important to have a structured and standardized handoff?
 - a. Prevent communication breakdowns; prevent disruptions and distractions during hurried handoffs.
 - b. Information might not get passed from shift to shift; information might be omitted completely during handoffs; meds might not get logged; specimens might not be collected
 - c. These communication failures often extend patient's length of stay and drive up costs.
2. What is I-PASS?
 - a. Developed by clinicians, for clinicians, I-PASS helps hospitals and health systems apply an evidence-based approach to reducing miscommunication in patient handoffs.

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3. I-PASS mnemonic (goal is for all five I-PASS mnemonic elements to be present for every patient, every handoff):
 - a. I: Illness severity
 - b. P: Patient summary
 - c. A: Action list
 - d. S: Situation awareness and contingency planning
 - e. S: Synthesis by receiver
4. Difference between I-PASS and ISBARR
 - a. ISBARR is an escalation tool, not a handoff tool
 - b. I-PASS includes the last step of “synthesis”, where the “receiver” of the handoff repeats/reads back to summarize what was heard, asks questions, and restates key action items.
 - c. Have students refer to the “Handoff Case Example: ISBARR and I-PASS” (posted on Moodle in “Participate in the Module”) and discuss the differences between the two communication techniques.

Review of Post vSIM Assignment

- Explain post vSim Assignment (individual, video only, rubric on Moodle and in “vSim Instructions for Rashid Ahmed (Fall 2024)” document.
- Due at regular clinical paperwork day/time.
- Answer any questions.
- (Note to faculty: A suggested answer key is copied below.)

I-PASS for Rashid Ahmed

Illness Severity: Hi. Mr. Ahmed is “**improving.**” (Note to graders: I chose this based on the fact Mr. Ahmed is “not acutely unstable, but has the potential to worsen” due to his hypokalemia and nausea. This could be somewhat subjective in my opinion.) He is a full code.

Patient Summary:

SUMMARY STATEMENT: Mr. Rashid Ahmed is a 50-year-old male who was admitted to the ED at 0400 this morning with a diagnosis of dehydration and hypokalemia. He has no known allergies and no significant medical history.

EVENTS LEADING TO ADMISSION: Three days ago, he developed abdominal cramping, nausea, vomiting, and severe diarrhea 12 hours after returning home from international travel. These symptoms have continued for 2 days, and food and fluid intake has been minimal to none since the symptoms began. Last night before admission, he nearly passed out while going to the bathroom around 0300. Mr. Ahmed was brought to the ED by his wife, and reported dizziness, weakness, fever, and continued nausea.

HOSPITAL COURSE: He received 4mg ondansetron IV for nausea in the ED which was effective.

ASSESSMENT FINDINGS: (Note: Students should include a review of Mr. Ahmed’s system assessment from the vSim scenario. A minimum of 15 high priority abnormal values and assessment findings are expected.)

Action List: Students should identify 4 specific actions. Some possible options from the scenario include:

- BMP at 1830
- VS at 2000
- Azithromycin starting tomorrow at 0800
- I&O q8hr
- ABG in AM

Situation Awareness and Contingency Planning: Students should identify 3 specific situation awareness and contingency planning items. Some possible options from the scenario include:

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- If K⁺ < 3.2, call provider
- If changes in ECG, call provider
- If temp > 102.2, administer PRN acetaminophen
- If patient c/o nausea, administer PRN ondansetron

S: *Students should provide the receiving nurse an opportunity to ask questions, clarify, and synthesize (i.e. "What questions do you have for me?")*

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References

Agency for Healthcare Research and Quality. (2024). *Handoffs and signouts*. PSNet.

<https://psnet.ahrq.gov/primer/handoffs>

Lippincott CoursePoint+. (2023). Lippincott CoursePoint+ for Taylor's Fundamentals of nursing. [online software based on Taylor et al: Fundamentals of nursing: The art and science of person-centered care, 10th ed.]. Wolters Kluwer. <https://thepoint.lww.com>

North Carolina Healthcare Association. (2015). *Handoff communication – Case study: ISBARR and I-PASS examples* [PDF]. https://www.ncha.org/wp-content/uploads/2018/06/Safe-Table_Handoff-Communication-Skit-%E2%80%93-Case-Study_ISBARR-and-IPASS-Examples.pdf