

Simulation Design Template

Course ADN 1A

Primary Health Condition Hypoglycemia

Simulation Learning Objectives

Students participating in the Simulated Clinical Experience will:

1. Recognize signs and symptoms of hypoglycemia. (GLO #2)
2. Utilize a hypoglycemic protocol to determine appropriate interventions (GLO #2)
3. Collaborate with other peers to implement appropriate nursing care for hypoglycemia. (GLO #1)
4. Identify priority nursing care for clients experiencing hypoglycemia. (GLO #2)
5. Recognize how hypoglycemia signs and symptoms can mimic a stroke. (GLP #2)

Client Information:

Age: 54 Date of Birth: July 21 Gender: Female Setting: Med/Surg Unit

Name: Marjean Roberts Race/Ethnicity: Caucasian

Weight: 130kg Height: 150cm

Allergies: Sulfa

Past Medical History:

osteoarthritis, diabetes mellitus, hypertension

Surgeries/Procedures & Dates:

Right total knee replacement-2 days ago

Appendectomy- 30 years ago

Tonsillectomy – 45 years ago

Social History (Religion, Support System):

Religion: None stated Major Support: Boyfriend

Mail carrier for 25 years, drinks 1 glasses of wine each night before bed

Admission Date 2 days ago

History of Present Condition:

Admitted 2 days ago for a R TKR, has been progressing well. IV and PCA pump were saline locked this am. Did not attend PT this morning due to nausea. Refused lunch tray. It is now 1300

Healthcare Provider: Dr. Smith

Labs this am:

CBC:

WBC: 12.0
 RBC: 3.8
 Hgb: 12.0
 Hct: 32.0
 Platlets: 250,000

BMP

Na 138
 K 4.1
 Cl 98
 CO₂ 32
 BUN 28
 Cr 0.1
 Glucose 98

AM Accucheck 101

Noon Accucheck 121

Healthcare Provider Orders:

1. Accuchecks QID
2. Initiate SSI and Hypoglycemia Protocols
3. Transfuse 1 unit of blood if Hgb < 9.5.
4. Up in chair BID POD #2.
5. Place client in CPM 8-9 hours a day.
6. Ice to knee as needed.
7. Physical therapy BID.
8. Occupational therapy consult.
9. Medications:
 - FeSo4 325 mg po 2 times a day.
 - MVI 1 po every day.
 - Zantac 150 mg po at HS.
 - Lisinopril 10 mg po every day.
 - Metformin 500 mg po 2 times a day.
 - Enoxaparin (Lovenox) 40 mg sq every day.
 - NPH 7 units sq every am.
 - NPH 14 units sq every pm.
 - Hydrocodone/APAP 10/325 every 4 hours as needed for pain
 - Tylenol 500-1000 mg po q 6 hrs prn pain/fever.
 - Ondansetron 4 mg IV q 4 hrs prn nausea.

Psychomotor Skills Required Prior to Simulation

Theoretical Concepts Required Prior to Simulation

Orientation to Simulation Lab and Manikin

Didactic theory on Diabetes and s/s and treatment of hypo and hyperglycemia

Simulation Room Set- up:

Setting Acute Care Type of Manikin Used Adult (female)

Props : (available for all simulations – BP cuff, pulse ox, glucometer, O2 set-up)

Additional Props: Ice pack, spirometer, dressing to right knee

Initial Manikin Settings (sitting with Head of Bed elevated):

Vitals	Lungs	Heart	Abdomen	Other
BP: 98/50 HR: 108 R: 16	LCTA	Regular Rate	Normal Bowel Sounds	
Additional Moulage: Dressing to R knee.				

Mock Medications Required:

Glucose Tabs

Glucose gel

Glucagon 1ml/mL vial

Regular Insulin

Tylenol 500 tablets

Hydrocodone/APAP 10/325 tablets

Ondansetron (ZOFRAN) 4mg/2mL vial

Documents Required (indicate what information will need to be handwritten on forms):

✓ Kardex

✓ Med Sheets-am meds documented as given, including routine insulin, 0 units of SSI given at 0800 and 4 SSI given at 1145; Ondansetron given at 1000; Hydrocodone/Ibuprofen given at 1000

Other documents:

Scenario Progression Outline

Marjean Roberts DOB: July 21

Expected Simulation Run Time: 15-20 min

Guided Reflection Time: 30 - 40 min

Timing (approximate)	Manikin Actions	Expected Interventions	Comments
Phase 1	<p>"I am not feeling so good. I am feeling sick to my stomach.</p> <p>If asks – "I didn't eat any of my lunch."</p> <p>Rates pain at a "4" if prompted. Pain in knee and dull achy pain.</p>	<p>Student will perform a quick head to toe assessment.</p> <p>VS Temp - 98.2 Pulse ox – 98%</p> <p>Performs a pain assessment.</p>	
Phase 2	<p>Responds sluggishly, "</p> <p>" I am so nauseated"</p> <p>"I feel really bad" – slurred speech; "Where am I"</p> <p>IF student checks right arm have the pt state something with slurred speech: " I can't lift it" If ask for a grip, "I just can't with that hand."</p>	<p>Reviews client chart and history including MAR.</p> <p>Performs accu-check - 48</p> <p>Follows Hypoglycemia Protocol: Give glucagon 1mg IM (1mL)</p> <p><i>**15 minute time jump**</i></p>	
Phase 3	<p>"I don't know what is happening to me. I feel kind of dizzy."</p> <p>"I don't remember feeling like this before."</p> <p>IF given oral fluids or glucose tabs – pt will vomit</p>	<p>Rechecks accu-check - 51</p> <p>Follows Hypoglycemia protocol Give 3-4 glucose tabs or gel</p> <p><i>**15 minute time jump**</i></p>	
Phase 4	<p>IF BG 68: " I am starting to feel better" "what happened"</p> <p>IF not treated with 2 carbs by this point – pt will become more lethargic and then unresponsive</p>	<p>Rechecks BG – 68</p> <p>Follows Hypoglycemia protocol Give second carb <i>*Notify physician*</i></p>	

Notifies physician:
SBAR Report – students should offer recommendations

Once adequate report given. Give the following orders:

1. *Infuse IV of D5 ½ NS at 125 mL hour per gravity. Dc when taking meals.*
2. *Ondansetron (Zofran) 4mg IV for nausea (2 mL) (if did not give previously) (administer over at least 30 seconds and preferably over 2-5 minutes)*
3. *Recheck blood sugar in 15 minutes and notify if <70*

Students should read orders back

Phase 5		<p>Drip rate=31 gtts/min (15gtt/mL tubing) Rechecks BG – 71</p> <p>Scenario ends when student have:</p> <ul style="list-style-type: none"> - Given glucagon and 2 sets of carbs with BG rechecks - Started IV fluids - Give Zofran 	
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Marjean Roberts DOB: July 21

Debriefing Discussion Points:

General

1. How did you feel about how things went?
2. Using the Nursing Process how did the team do with:
 - A. Data Collection/Assessment
 - B. Planning
 - C. Implementation
 - D. Interventions
3. Discuss how the team maintained safety and infection control concepts
4. Discuss how the group functioned as a team
5. Discuss how the team communicated therapeutically

Scenario Specific:

1. What nursing/medical problem is occurring?
(hypoglycemia)
2. A. What nursing/medical problem can hypoglycemia mimic?
(stroke)
2. B. What should be a first assessment with presentation of stroke symptoms and why?
(BS for hypoglycemia can mimic a stroke)
3. What caused or could have caused the problem?
*(Received insulin – but did not eat lunch
(discuss giving/not giving Zofran ~ what is nausea cause?)*
4. Discuss treatment given
(carbs and rechecking BG)

This workforce solution is funded by the IHUM Consortium which is 100% financed through a \$15,000,000 grant from the U.S. Department of Labor's Employment & Training Administration.

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