## Student Developed Simulation Scenario Storyboard

| Identified Problem/Scenario Topic and Related Resources: | Desired Overall Goal: |
|---|---|
| Gestational Diabetes<br><br>Textbook Chapter 8: Nursing care of the women with complications during pregnancy<br><br><br>Kylee Cheek, Lindsey Steele, Presley Stang | 1. The patient will maintain blood glucose levels within the target range; typically, fasting blood glucose <95 mg/dL.<br><br>2. Educate patient on insulin and blood glucose monitoring.<br><br>3. Educate patient on signs and symptoms of hypoglycemia (e.g., shakiness, sweating, blurred vision)<br><br>4. Educate patients on safe regular physical activity. |

| | Expected Interventions of Students: |
|---|---|
| **Case Summary:**<br>27-year-old female patient, 35 weeks pregnant, who is diagnosed with gestational diabetes (GDM). She has a history of PCOS, a previous pregnancy over 9 lbs., and a direct family history of type 2 diabetes. Blood glucose taken at home was 218 mg. Her GTPAL is G:2 T:1 P:0 A:0 L:1. She came in for polyuria, polydipsia, polyphagia, fatigue, and blurred vision. T: 98.0, HR: 101, RR: 22, BP: 134/80, Spo2: 98%, BS:230 mg/dL | 1. Assessing the patient's understanding of gestational diabetes and providing teaching if needed.<br><br>2. Refer to a dietitian and reinforce the diet plan.<br><br>3. Monitor blood sugar levels and adjust care as per provider's orders<br><br>4. Administer insulin or medications as prescribed.<br><br>5. Teach capillary glucose testing for self-monitoring.<br><br>6. Monitoring for signs of hyperglycemia and DKA<br><br>7. Monitor fetal growth with NSTs as ordered. |
| **Supplies:**<br>  1. Glucometer and test strips<br>  2. Gloves<br>  3. Sharps container<br>  4. Rachel mom<br>  5. Vital Sign machine<br>  6. Alcohol wipe, tissues<br>  8. Insulin pen<br>  9. Diet plan from MyPlate printed<br>  10. Patient Education Materials printed<br>*will need all of these supplies provided to us. | |

1. A nurse is reviewing the blood glucose levels of a patient at 35 weeks' gestation with gestational diabetes. Which blood glucose reading would indicate that the patient's blood sugar is well controlled?
   - a. A. 95 mg/dL fasting
   - b. B. 150 mg/dL fasting
   - c. C. 165 mg/dL 1 hour after a meal
   - d. D. 200 mg/dL 2 hours after a meal

   **Answer: A. 95 mg/dL fasting;** within the recommended range for good blood sugar control during pregnancy according to our textbook.

2. A pregnant woman with gestational diabetes asks how her condition might affect her baby after delivery. What is the best response by the nurse?
   - A. "Your baby might develop type 1 diabetes immediately after birth."
   - B. "Your baby will likely need insulin injections for the first few days after birth."
   - C. "Your baby could have low blood sugar after delivery, but we will monitor and treat it if necessary."
   - D. "Gestational diabetes does not affect the baby after birth as long as it was controlled during pregnancy."

   **Answer: B. "Your baby could have low blood sugar after delivery, but we will monitor and treat it if necessary",** Infants born to mothers with diabetes are at risk for neonatal hypoglycemia due to the extra insulin they produce to the mom's high blood sugar.

**Case Flow (15-20 Minute Simulation Time)**

**Initiation of Scenario:**

**Case Study:**
Patient in bed-hand off received.
Patient reports increased hunger, increased thirst, increased urine output, fatigue, and blurred vision
Patient A&Ox4, nurse applies EFM

| Vital Signs | T | 98.0 | HR | 101 | RR | 22 | BP | 130/80 mmg | SPo2 | 98% RA | Pain | 3/10 | BS | 230 mg/dL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| Cardiac | Slight tachycardia |
|---|---|
| Respiratory | Lung sounds clear |
| Neuro | A&O x4 |
| Skin | WNL |
| GI | WNL |
| GU | Polyuria |
| Other | EFM accelerations <br> Mood: irritable due to patient not feeling good. |

**First Frame:**

**Case Study:**
Nurse introduces self and begins assessment.
Patient A&O x4
Blood sugar obtained by nurse
Patient verbalizes that she is insulin dependent, and she is unable to afford medications.
Patient verbalizes she gets frequent infections of her bladder and vagina.

| Vital Signs | T | 98.0 | HR | 100 | RR | 22 | BP | 133/80 | SpO2 | 98% on RA | Pain | 3/10 | BS | 235 mg/dL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| Cardiac | Slight tachycardia |
|---|---|
| Respiratory | Clear lung sounds |
| Neuro | A&O x4 |
| Skin | WNL |
| GI | WNL |
| GU | Polyuria |
| Other | Polydipsia <br> Polyphagia <br> EFM Accelerations <br> Mood: irritable due to patient not feeling good. |

**Second Frame**

**Case Study:**
Acetaminophen 500 mg PO due to generalized pain score of 3/10
Primary nurse obtains a urinalysis
Primary nurse calls HCP regarding urinalysis, and blood sugar level to obtain an order for insulin sliding scale.
Gives SBAR to RRT

| Vital Signs | T | 98.0 | HR | 100 | RR | 22 | BP | 133/80 | SpO2 | 98% NC | Pain | 3/10 | BS | 235 Mg/dL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | |
|---|---|
| **Cardiac** | Slight tachycardia |
| **Respiratory** | Clear lung sounds |
| **Neuro** | A&O x4 |
| **Skin** | WNL |
| **GI** | WNL |
| **GU** | Polyuria |
| **Other** | Fatigue<br>Polydipsia<br>Polyphagia<br>EFM: Accelerations<br>Mood: irritable due to patient not feeling good. |

**Third Frame**

**Case Study:**
**Administer newly ordered insulin aspart**
**Reassess vital signs, blood sugar, and LOC**
**Patient A&Ox4**

| Vital Signs | T | 98.0 | HR | 98 | RR | 20 | BP | 130/80 | SpO2 | 98% RA | Pain | 3/10 | BS | 185 Mg/dL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | |
|---|---|
| **Cardiac** | WNL |
| **Respiratory** | Lung sounds clear |
| **Neuro** | WNL |
| **Skin** | WNL |
| **GI** | WNL |
| **GU** | Polyuria |
| **Other** | Fatigue<br>Polydipsia |

| EFM: Accelerations |
| --- |
| Mood: irritable due to patient not feeling good. |

**Case Study:**
Patient responds to Lispro
Nurse educates patient on Gestational diabetes, insulin adherence, diet, and resources (food stamps ect.).

| Vital Signs | T | 98.0 | HR | 100 | RR | 20 | BP | 130/80 | SpO2 | 98% | Pain | 3/10 | BS | 185 Mg/dL |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

| Cardiac | WNL |
| --- | --- |
| Respiratory | Lung sounds clear |
| Neuro | A/O x4 |
| Skin | WNL |
| GI | WNL |
| GU | WNL |
| Other | Mood: patient feeling better and less tired. |

**Debriefing Questions:**
**1. What were the main risk factors for this patient developing gestational diabetes?**

**2. What challenges did you encounter while managing gestational diabetes during the simulation, and how did these interventions used impact the patient's outcome?**

**Patient Report:** Misty Meanor**,** 27-year-old female patient, 35 weeks pregnant, who is diagnosed with gestational diabetes (GDM). She has a history of PCOS, a previous pregnancy over 9 lbs., and a direct family history of type 2 diabetes. Blood glucose taken at home was 218 mg. Her GTPAL is G:2 T:1 P:0 A:0 L:1. She came in for polyuria, polydipsia, polyphagia, fatigue, and blurred vision. T: 98.0, HR: 101, RR: 22, BP: 134/80, Spo2: 98%, BS:230 mg/dL

# Additional information, Medical History:

**Patient data: Misty Meanor**

**DOB: 10/04/1997**

**MR#: 444444444**

**Prior medical history:  Gestational Diabetes (insulin dependent), Frequent infections of bladder and vagina**

**Allergies: Penicillin and Eggs**

**Social history: None**

Firelands Regional Medical Center
Sandusky, Ohio
Physician's Orders

| | |
|---|---|
| NAME: Misty Meanor | STATUS: SIGNED |
| DATE ORD: 11/19/2024 | ROOM: 69 |
| ORD PHYS: Dr. Hugh Jass | MR# 444444444 |
| ATTENDING:  Dr. Hugh Jass | DOB: 10/04/1997 |

| Date/Time | 11/19/2024, 0700 |
| --- | --- |
| XX/XX/XX | Admit to labor and delivery. |
| | Diagnosis: Hyperglycemia |
| | VS: every 2 hours |
| | Activity: stand by assist |
| | Diet: NPO until orders change |
| | I&O: Send urine to lab for urinalysis |
| | Other: Hook up to EFM and call for other orders |
| | Dr. Hugh Jass |

## Firelands Regional Medical Center
## Sandusky, Ohio
## LABORATORY

| | |
| --- | --- |
| NAME: Misty Meanor | STATUS: SIGNED |
| DATE ORD: 11/19/2024 | ROOM: 69 |
| ORD PHYS: Dr. Hugh Jass | MR# 444444444 |
| ATTENDING: Dr. Hugh Jass | DOB: 10/04/1997 |
| AGE: 27 years old | DATE: |

11/19/2024

| URINALYSIS | XX/XX/XX Admission | Reference Range |
|---|---|---|
| pH | 6.0 | 4.6-8 |
| Specific Gravity | 1.010 | 1.005-1.030 |
| Glucose | 3+ | Negative |
| Protein | Trace | Negative |
| Blood | Negative | Negative |
| Ketones | Negative | Negative |
| Nitrite | Negative | Negative |
| Leukocyte esterase | Negative | Negative |
| Clarity | Clear | Clear |
| Color | Pale yellow | Pale yellow to amber |

| Stop | Medication | Time | TODAY 1/11/18 |
|---|---|---|---|
| XX/XX/XX | **Insulin Aspart  See Protocol SUBCUT TID.AC.HS SCH** Trade: NovoLOG Flexpen Rx#: 00027473 [M][P] [SI] | 0800 | |
| XX/XX/XX | | 1200 | |
| | | 1700 | |
| | Give:  See Protocol **− Label Comments:** *TI FOR HUMALOG,APIDRA * 28 DAY EXPIRATION *HIGH RISK MEDICATION-USE WITH CAUTION* *NAME IS SIMILAR TO OTHER MEDS, USE CAUTION* Dispose of med waste in Black bin | 2200 | |
| | _      Scale A      Scale B 150-199      2            1 200-249      4            2 250-299      6            3 300-349      8            4 350-400      10          5 >400          12          6 (call the physician) USE SCALE A WHEN MEAL OF 30 OR MORE CHO EATEN OR WHEN TUBE FEED/TPN RUNNING. USE SCALE B WHEN NPO, MEAL OF <30GM CHO EATEN, TUBE FEED/TPN NOT RUNNING AND HS. *NOT APPROPRIATE TO USE SCALE IF LESS THAN 3 HOURS SINCE PREVIOUS MEAL AND SCALE DOSE. | | |

# My Meal Planner: Portion Sizes

## Pick 2 or more vegetables = 2 cups

Tomato — Red pepper — Beets — Cabbage — Eggplant

Cucumber — Broccoli — Lettuce — Green beans — Okra

Onion — Cauliflower — Chayote — Pumpkin — Carrot

## Pick 1 starch = 1 cup

**Breakfast**

Cereal — Wheat bread (1-2) — Oatmeal — Saltines (5)

**Lunch or dinner**

Fried plantains — Rice (white or brown) — Potato salad — Mangu — Plantain — Pasta

Yam (1 medium) — Casabe (½ piece) — Mashed potatoes — Cassava — Yautia — Green bananas

## Pick 1 protein = 4 ounces

**Breakfast**

Boiled egg — Nut butter (1-2 tbsp) — Nuts (¼ cup) — Plain Greek yogurt — Plain cottage cheese

**Lunch or dinner**

Beans (½ cup) — Lean steak — Low-fat cheese (2 ounces) — Chicken — Pork — Fish

## Ask your nutritionist if you should eat 1 fruit or 1 dairy product.

Banana — Mango — Papaya — Pineapple — 1% milk — Plain or light yogurt

Vegetables — Starch — Protein

# HEALTHY EATING PLATE

**WATER**

Drink water, tea, or coffee (with little or no sugar). Limit milk/dairy (1-2 servings/day) and juice (1 small glass/day). Avoid sugary drinks.
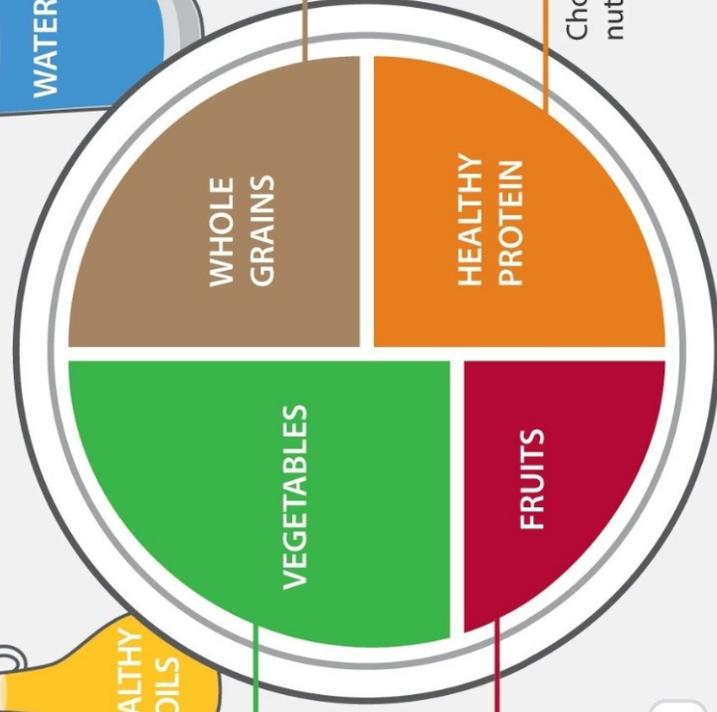
**WHOLE GRAINS**

Eat a variety of whole grains (like whole-wheat bread, whole-grain pasta, and brown rice). Limit refined grains (like white rice and white bread).

**HEALTHY PROTEIN**

Choose fish, poultry, beans, and nuts; limit red meat and cheese; avoid bacon, cold cuts, and other processed meats.

**VEGETABLES**

The more veggies – and the greater the variety – the better. Potatoes and French fries don't count.

**FRUITS**

Eat plenty of fruits of all colors.

**HEALTHY OILS**

Use healthy oils (like olive and canola oil) for cooking, on salad, and at the table. Limit butter. Avoid trans fat.

**STAY ACTIVE!**

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