ATI Real Life Student Packet
N201 Nursing Care of Special Populations
2024

Student Name: _____Johanna Duperoy_____

ATI Scenario: _____Type 1 DM_____

To Be Completed Before the Simulation

*****Blue boxes should be completed using textbook information. What do you expect to find? This information should be collected before you start the ATI simulation*

Medical Diagnosis: ____Type 1 Diabetes Melitus_____

NCLEX IV *(8)*: Physiological Integrity/Physiological Adaptation

Anatomy and Physiology
Normal Structures

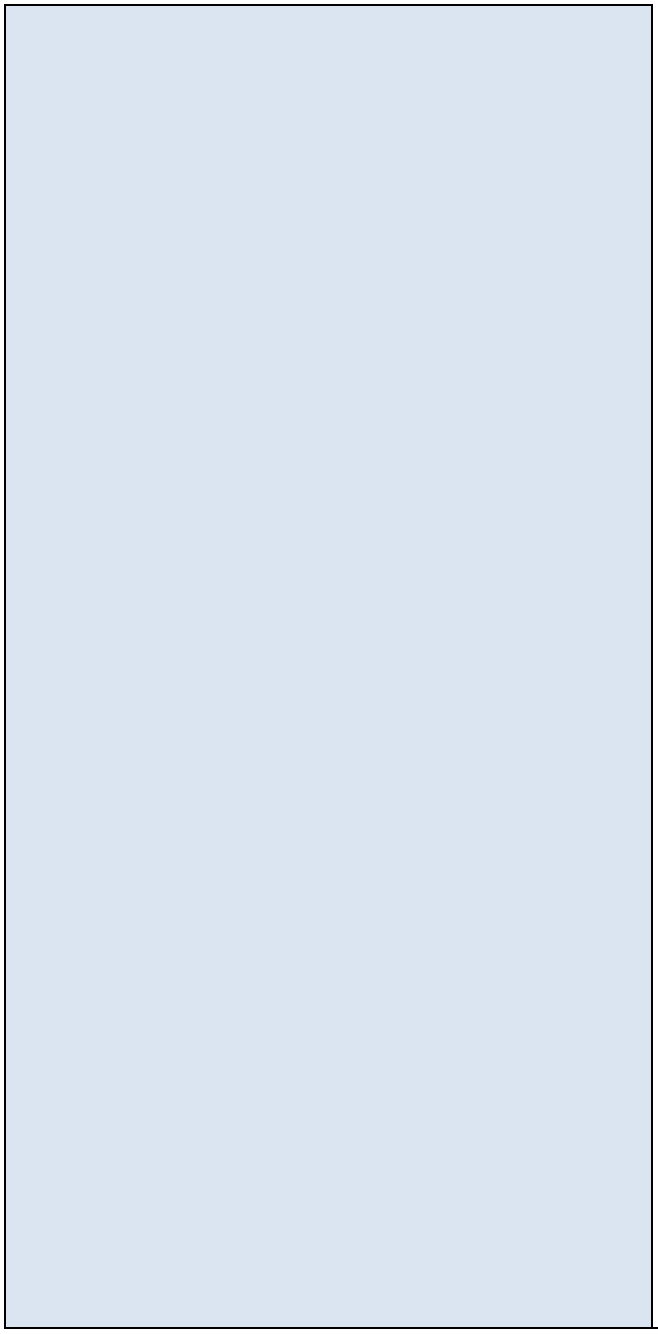
Anatomy: The endocrine system consist of glands that make and secrete hormones. The glands are hypothalamus, pituitary, thyroid, parathyroid, adrenal glands, pancreas, pineal gland, ovaries, and testies.
Physiology: The endocrine system functions to stimulate growth and development during childhood, sexual reproduction, maintaining homeostasis, responding to emergency demands, and reproductive and CNS development in the fetus.

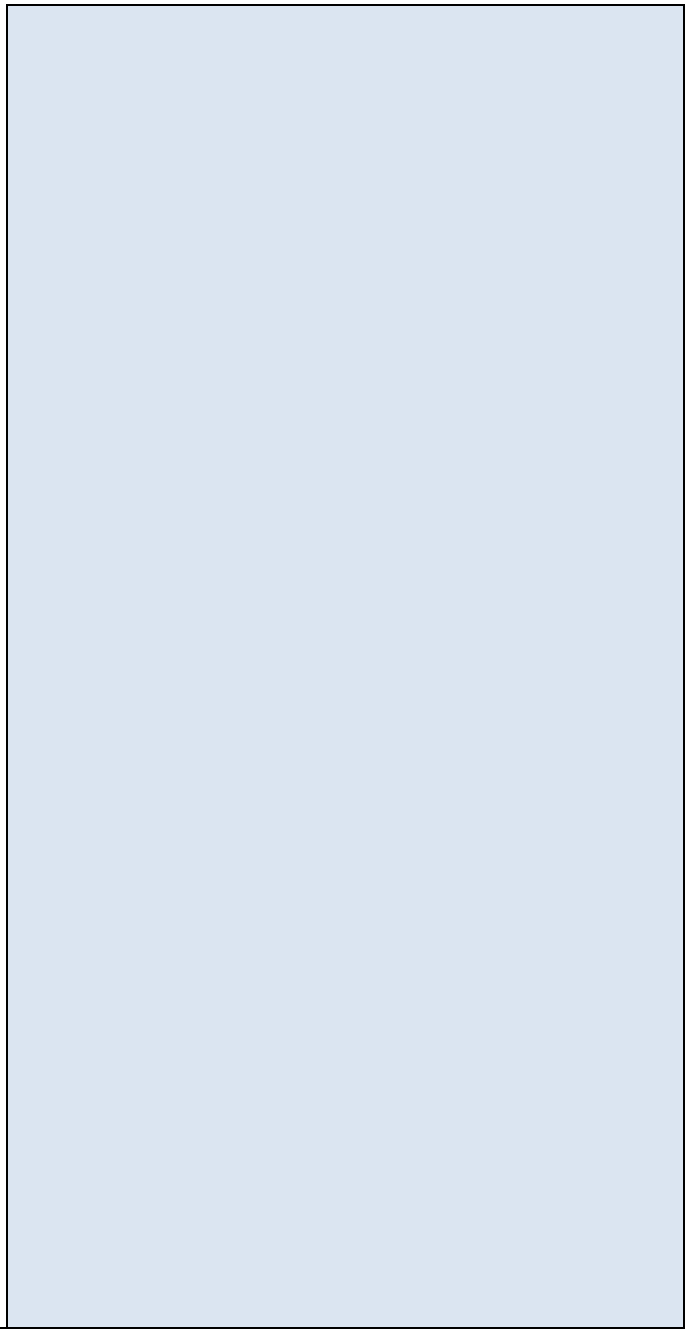
Pancreas
• Located behind the stomach
• Hormones secreted in islet of langerhans
• Consist of alpha cells, beta cells, delta cells, f cells
• These cells secrete hormones to regulate homeostasis
• The hormones travel to their target cells to carry out a function
• Beta cells are supposed to produce and secrete insulin into the blood stream. Insulin is then supposed to facilitate the transport of glucose to its targeted cells like the cells in the skeletal muscle and adipose tissue.
In type 1 diabetes insulin is unable to be produced due to destruction of beta cells.

NCLEX IV *(7)*: Reduction of Risk

Pathophysiology of Disease

Type 1 diabetes is an autoimmune disorder that is cause by genetics or exposure to a virus. In type 1 diabetes the bodys islet cells develop antibodies against insulin and or the pancreatic beta cells that produce insulin. This leads to the body not being able to produce enough insulin. Insulin promotes glucose transport from bloodstream across cell membranes and into cells. The cells than breakdown glucose for energy. The liver and muscle cells store excess glucose as glycogen. Insulin receptor sites in the liver facilitate hepatic uptake of glucose and its conversion to glycogen. When the body can't produce enough insulin in type 1 diabetes glucose builds up in the cells leading to hyperglycemia. Chronic hyperglycemia can lead to adult blindness, end stage renal disease, and non-traumatic lower limb amputations.





To Be Completed Before the Simulation

Anticipated Patient Problem: Risk for unstable blood glucose

Goal 1: Pt blood glucose will remain between 70-110 during my time of care.

Goal 2: Pt will eat >=75% of meals during my time of care.

Relevant Assessments (Prework) What assessments pertain to your patient's problem? Include timeframes	**Multidisciplinary Team Intervention** (Prework) What will you do if your assessment is abnormal?
Assess nutrition status at start of shift	Encourage to eat 100% of carb controlled diet at lunch
Assess capillary blood glucose levels before lunch	Administer insulin as ordered
Assess knowledge of monitoring blood glucose at start of shift	Educate importance of monitoring blood glucose levels before meals
Assess willingness for physical activity at start of shift	Encourage to ambulate once before lunch
Assess for signs of hypoglycemia such as cool and clammy skin after insulin administration	Administer glucagon as ordered
Assess for signs of hyperglycemia after lunch if no insulin administered	Contact provider to administer insulin.

To Be Completed Before the Simulation

Anticipated Patient Problem: Deficient Knowledge Diabetes

Goal 1: Pt will demonstrate importance of monitoring blood glucose levels during my time of care

Goal 2: Pt will demonstrate importance of exercise to lower blood glucose levels during my time of care

Relevant Assessments (Prework) What assessments pertain to your patient's problem? Include timeframes	**Multidisciplinary Team Intervention** (Prework) What will you do if your assessment is abnormal?
Assess language literacy at start of shift	Provide education on diabetes that match literacy levels before before lunch
Assess knowledge on diabetes disease process at start of shift	Educate on basic diabetes process of beta cell destruction and inability to produce insulin before discharge
Assess knowledge of diabetic diet at start of shift	Educate on why diabetic diet is low carb and low calories before lunch.
Assess knowledge of delayed wound healing and susceptibility to infections at start of shift	Educate on susceptibility to infections and how diabetes causes delayed wound healing at start of shift.
Assess knowledge of physical activity importance for decreased blood sugar at start of shift	Educate on importance of physical activity for diabetes and how it can decrease blood sugars, after lunch.
Assess readiness to learn about diabetes at start of shift	Encourage to implement teaching to improve and manage blood sugar at start of shift

To Be Completed During the Simulation:

Actual Patient Problem #1: Risk for unstable blood glucose
Goal: pt blood glucose will remain between 70-110 during my time of care. Met: ☐ Unmet: ☐
Goal: Pt will eat >=75% of meals during my time of care. Met: ☐ Unmet: ☐

Actual Patient Problem #2: Deficient knowledge
Goal: Pt will demonstrate importance of monitoring blood glucose levels during my time of care. Met: ☐ Unmet: ☐
Goal: Pt will demonstrate importance of exercise to lower blood glucose levels during my time of care Met: ☐ Unmet: ☐

Additional Patient Problems:
#3 Impaired skin integrity
#4
#5
#6

Below will be your notes, add more lines as needed. **Relevant Assessments:** Indicate pertinent assessment findings. **Multidisciplinary Team Intervention:** What interventions were done in response to your abnormal assessments? **Reassessment/Evaluation:** What was your patient's response to the intervention?

Patient Problem (#)	Time	Relevant Assessments	Time	Multidisciplinary Team Intervention	Time	Reassessment/ Evaluation
Risk for unstable blood glucose	0400	Mom states Derek hasn't been himself lately, doesn't seem to have energy and doesn't play with his friends much. Wet the bed, no fever, lost weight since last visit HR 88, RR 18, BP 102/70, Weight 88lb, T 99.2, SPO2 99% on RA Mom states he has been snacking more but pants fitting looser, states "im thirsty a lot" cut on knee that's healing slow	0405	Notified provider of findings	0800	HR 78, RR 16, BP 110/70, SPO2 100% on RA, T 98.6
Risk for unstable blood glucose & Impaired skin integrity	0405	Provider ordered capillary blood glucose, blood glucose 271	0406	Provider ordered urine dipstick	0800	Urine positive for ketones
Deficient knowledge diabetes	0500	Mom ask "Will he have to take insulin"	0505	Educated that Derek needs to be admitted to	0506	Mom says "oh my gosh what will we do now"

				regulate blood sugar levels		
Deficient knowledge diabetes	0510	Mom says “This is all pretty overwhelming theres lots to learn”	0515	Educated that he will be given insulin to lower his blood glucose	0516	Mom says ok
Risk for unstable blood glucose	0600	Blood sugar 274 urine positive for ketones	0605	Reassured that were here to support her and provide whatever information needed to be comfortable	0606	Mom “says thank you for all your help”
^^^		^^^	0710	Administered regular insulin 4u Subq	0800	Blood glucose 138
Deficient knowledge diabetes	0800	Mom asks Whats an A1C	0805	Educated about A1C	0810	Mom demonstrates understanding by saying she will monitor this value
Deficient knowledge diabetes	0900	Confused about a fasting blood sugar test	0905	Educated about fasting blood sugar and how to manage Dereks diabetes	1525	Ate 90% of snack
Risk for unstable blood glucose	0910	Derek says hes hungry	0915	Educated on importance of snacking between meals and at bedtime to prevent blood sugar from dropping after insulin. Provided snack	0920	Mom demonstrates understanding and says she will keep a snack on her for Derek
Risk for unstable blood glucose	0930	Sweating, irritable, and tearful, mom states hes not acting like himself, blood glucose 58	0935	Gave 4oz orange juice	1000	Blood glucose 82
Deficient knowledge diabetes	1005	Mom asked about insulin pen and insulin pump	1010	Educated on how to administer insulin and importance of roating sites. Educated about insulin pen	1015	Mom tells Derek to put book down so they can learn about insulin
Deficient knowledge diabetes	1020	Do we have to do something different when Derek is sick?	1025	Educated on how to manage blood glucose when sick	1030	Mom verbalizes understanding and states she will do that
Deficient knowledge diabetes	1030	Derek wants to go back to school and play sports	1035	Educated on exercise and	1040	Derek states kids have been making fun of him for

				managing blood sugar		checking his blood sugar

To Be Completed After the Simulation

The orange boxes should be filled out with your simulation patient's actual results, assessments, medications, and recommendations

NCLEX IV *(7)*: Reduction of Risk

Actual Labs/ Diagnostics
Fingerstick
Urine dipstick
HGB A1C
Symptoms

NCLEX II *(3)*: Health Promotion and Maintenance

Signs and Symptoms
Fatigue
Polyuria
Polydipsia
Polyphagia
Blurred vision
Slow wound healing

NCLEX II *(3)*: Health Promotion and Maintenance

Contributing Risk Factors
Genetics

NCLEX IV *(7)*: Reduction of Risk

Therapeutic Procedures
Non-surgical
Education
Meals
Support

Surgical

Prevention of Complications
(Any complications associated with the client's disease process? If not what are some complications you anticipate)
Lower limb amputation
Retinopathy
Blindness
Nephropathy
Hyperglycemia
HHS
DKA
Hypoglycemia

NCLEX IV *(6)*: Pharmacological and Parenteral Therapies

Medication Management
Insulin
Glucagon

NCLEX IV *(5)*: Basic Care and Comfort

Non-Pharmacologic Care Measures
Orange juice
Providing comfort
Providing education
Providing meals

NCLEX III *(4)*: Psychosocial/Holistic Care Needs

Stressors the client experienced?
Social isolation
Missing friends
Fear of unknown

Client/Family Education

Document 3 teaching topics specific for this client.
- Education on disease process of diabetes
- Education of HGB A1C goal range
- Education of signs and symptoms of hypoglycemia and how to tx

NCLEX I *(1)*: Safe and Effective Care Environment

Multidisciplinary Team Involvement
(Which other disciplines were involved in caring for this client?)
Hospitalist
Nurse
Social worker
Dietitian
Pharmacist

Patient Resources
American diabetes association
Juvenile diabetes research foundation

Reflection Questions

Directions: Write reflection including the following:

1. What was your biggest "take away" from participating in the care of this client?
   My biggest takeaway was the importance of educating both the patient and their family about managing Type 1 Diabetes, including monitoring blood glucose levels, recognizing signs of hypo- and hyperglycemia, and administering insulin. Effective communication and collaboration with the family are crucial to ensure proper disease management and to foster independence as the child grows.

2. What was something that surprised you in the care of this patient?
   I was surprised by how emotionally resilient Derek was despite the challenges associated with managing Type 1 Diabetes. Derek showed a strong willingness to learn and participate in his care, which was surprising with the anticipated resistance or fear I expected from a pediatric patient facing frequent glucose checks and insulin injections.

3. What is something you would do differently with the care of this client?
   I would spend more time engaging with Derek directly in his care by using age-appropriate teaching tools, such as visual aids or hands-on demonstrations, to help him understand his condition and feel empowered to participate in his own care.

4. How will this simulation experience impact your nursing practice?
   This experience impacted my nursing care by emphasizing the importance of tailoring education to both the developmental stage of Derek and the needs of his mom. It also highlighted the critical role of thorough assessment and rapid intervention in managing diabetes. Moving forward, I will ensure a family-centered approach that prioritizes clear communication and support for both the child and parents.

5. Discuss norms or deviations of growth and development that was experienced during the simulation, including developmental stage.
   Derek was in the school-age developmental stage, as described by Erikson's psychosocial theory of development Industry vs. Inferiority. A norm observed was Derek's interest in learning about their condition and their desire to gain some independence in self-care, which aligns with this stage's developmental tasks. A deviation might include Derek expressing frustration in managing diabetes due to feelings of being different from peers.