

ATI Real Life Student Packet
N201 Nursing Care of Special Populations
2022

Student Name: Lauren Gulbranson

ATI Scenario: Type 1 Diabetes Mellitus

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 Mellitus

NCLEX IV (8): Physiological Integrity/Physiological Adaptation

Anatomy and Physiology

Normal Structures

The pancreas is an accessory organ and exocrine gland of the digestive system, as well as a hormone producing endocrine gland. It is a retroperitoneal organ consisting of five parts and an internal system of ducts. The pancreas is supplied by pancreatic arteries stemming from surrounding vessels and is innervated by the vagus nerve (CN X), celiac plexus, and superior mesenteric plexus.

Its endocrine function involves the release of insulin and glucagon into the bloodstream, two important hormones responsible for regulating glucose, lipid, and protein metabolism.

Insulin controls whether sugar is used as energy or stored as glycogen. Glucagon signals cells to convert glycogen back into sugar. Insulin and glucagon work together to balance your blood sugar levels, keeping them in the range that your body requires.

NCLEX IV (7): Reduction of Risk

Pathophysiology of Disease

Type I diabetes mellitus, formerly referred to as juvenile-onset diabetes mellitus or insulin-dependent diabetes mellitus. This condition is known to occur at any age group, but the majority of affected individuals are diagnosed in their mid-teenage years. This condition is characterized by a deficiency in the pancreatic hormone, called insulin. Insulin is particularly produced by a certain group of cells in the pancreas, called the beta cells. Experimental pathologic evidence amongst type I diabetics show that these beta cells are selectively affected and are eventually destroyed. This process is mediated by the body's immune system. This initially causes derangements in insulin production. This may go unnoticed until eventually the pancreatic beta cells are fully destroyed causing ultimate failure of insulin secretion and production. Insulin normally functions to lower blood glucose levels after eating a meal. A deficiency of insulin causes excess glucose in the blood with serious potential complications, if left untreated.

Anticipated Patient Problems, Goals, & Interventions Based on Medical Diagnosis

** This worksheet should be completed before you begin the ATI simulation.

Problem #1: Risk for unstable glucose level

Patient Goals:

1. Patients glucose level will remain 70-110 mg/dL before meals and below 180 mg/dL 1-2 hours after meals through out my care.

2. Pt. will teach back hyper and hypoglycemia signs and symptoms by the end of my care.

Assessments: Assess for signs of hypoglycemia PRN (Feeling dizzy and weak, being pale, sudden feeling of excess hunger, Increased heart rate, Blurred vision, Confusion, Irritable or nervous), Assess for signs of hyperglycemia PRN (polyuria, polydipsia and polyphagia), Assess blood glucose Q4 hours and PRN.

Interventions (In priority order):

1. Administer long-acting insulin (lantus) once a day and PRN
2. Administer regular acting insulin (humalin) 30 minutes before meals and PRN
3. Administer rapid-acting insulin analogs: lispro insulin (Humalog), no earlier than 15 minutes before meals.
4. Educate pt. that insulin dosages may need to be adjusted PRN until therapeutic levels have been reached (glucose of 110 or less).
5. Educate pt. on signs and symptoms of hypoglycemia PRN
6. Educate pt. on signs and symptoms of hyperglycemia PRN
7. Educate pt. on how to monitor blood glucose level at home

Problem #2: Risk for infection

Patient Goals:

1. Pts. Temperature will remain below 100.4 through out my care.

2. Pts. RR will remain under 20 breaths per minutes throughout my care.

Assessments: monitor signs and symptoms of infection and inflammation (fever, flushed appearance, wound drainage, purulent sputum, cloudy urine, increased WBC) q day and PRN. Vitals q 4 hours and PRN (temp. pulse. RR)

Interventions (In priority order):

1. Perform hand hygiene before touching pt. and PRN
2. Maintain asepsis during IV insertion, administration of medications, and or providing wound care

3. Provide catheter and perineal care BID and PRN for uncleanliness
4. Provide meticulous skin care by keeping skin dry, keeping linens dry, clean, and wrinkle free throughout care.
5. Encourage pt. to bath or shower daily and PRN
6. Educate pt. on signs and symptoms of infection PRN

To Be Completed During the Simulation
Nursing Notes

Time	I or E	Notes	Specify NDx #
09:00	E	12-year-old boy comes to office with complaints of not feeling like himself, bed wetting, lack of energy. He's lost weight since last visit. Eating and drinking more. Blurred vision when reading. 2 weak old cuts on knee that are just now starting to scab over. -----LG	1,4
09:15	I	Performed a urine dip stick ----- LG	1
09:20	E	Urine tested positive for ketones -----LG	1
09:30	I	Performed glucose monitoring -----LG	1
09:35	E	Glucose level 271 -----LG	1
		Sent to hospital....	
11:00	E	T: 37.3, P 88, BP 102/70, SPO2 98% room air. -----LG	
11:15	I	Provided mother a pamphlet on diabetes education. Performed glucose monitoring -----LG	2
11:20	E	Glucose 274. Mother states "this is all so overwhelming" -----LG	1,2
11:30	I	Provided education of insulin -----LG	1,2
12:00	E	Pt. stated that he did not want a shot. Mom stated that "it is important to get the medicine, so you don't feel sick anymore" -----LG	1,2
12:10	I	Administered 4 units of insulin-----LG	1
12:30	E	All labs normal except blood glucose level (276 mg/dL) and A1C (12%)	1
12:40	I	Provided education to mother about A1C levels-----LG	1,2
12:45	E	Mother verbalized understanding by stating "if his A1C is 7% that means his glucose is controlled." -----LG	1,2
13:00	I	Provided education on the need for snacks in between meals while on insulin. Provided the pt. with six whole grain crackers and 2 oz of cheese. -----LG	1
		Next day...	
10:00	E	Resting in bed reading a book with mom in the room. Fasting blood glucose is 126 mg/dL. Mom asks what the different between fasting and non-fasting blood glucose level is. -----LG	1,2
10:15	I	Provided education on fasting blood glucose levels. Should be between	2

		70-110 mg/dL -----LG	
11:30	E	Mom complains that the pt. isn't acting like himself, sweating, irritable. ----- LG	1
11:35	I	Gave pt. 4 oz of orange juice. -----LG	1
11:45	E	Pt. states that he is feeling much better now -----LG	1
11:50	I	Provided education on the importance of keeping simple carbohydrates with them in case he becomes hypoglycemic and to follow the simple carbohydrates with complex. Provided education on insulin and when to eat after them. Performed demonstration of how to inject insulin. -----LG	1,2
11:55	E	Pt. shows understanding by stating "I should inject the needle at a 90-degree angle". Mother asks about insulin pens. -----LG	2
12:00	I	Provided education on insulin pen that it should be stored at room temperature once it has been opened. -----LG	2
12:15	E	Mother asked about insulin pumps -----LG	2
12:30	I	Informed mom that the pt. would need to change insulin pump needle every 2 days. Provided education on glucose management when sick and the need to check glucose q 3 hrs. when sick. Provided education on sports and physical activities with diabetes. -----LG	1,2
12:45	E	Verbalized understanding by mom stating "he should eat a complex carb before exercise" -----LG	1,2
		Pediatrician's office...	
10:00	E	States that he has been feeling better but that he does not like to check his blood sugar with other kids around because his baseball team made fun of him for it. Also stated that his finger hurts from sticking it all the time. -----LG	3
10:15	I	Provided education on the need to check your blood sugar and tips on how to make it less painful. Addressed the need for a medical alert bracelet. -----LG	1,2,3
10:45	E	Mom showed understanding by stating "I will stop on the way home to get a bracelet" -----LG	1,2

Initials/ Signature LG/L.Gulbranson SNB

Actual Patient Problems & Goals

** This worksheet should be completed after you complete the ATI simulation.

Problem #1: Risk for unstable glucose level

Patient Goals:

1. Patients glucose level will remain 70-110 mg/dL before meals and below 180 mg/dL 1-2 hours after meals throughout my care. Met
Unmet
2. Pt. will teach back hyper and hypoglycemia signs and symptoms by the end of my care. Met
Unmet

Problem #2: Deficient knowledge

Patient Goals:

- 1. Pt. will demonstrate how to perform a blood glucose test while in my care. Met
Unmet
- 2. Pt. will demonstrate how to self-administer insulin by the end of my care. Met
Unmet

Problem #3:

Patient Goals: Ineffective coping

- 1. Pt. will verbalize feelings of embarrassment related to glucose monitoring and insulin around peers while in my care. Met
Unmet
- 2. Pt. will verbalize the importance of glucose monitoring throughout the day even when he is around his peers. Met
Unmet

Problem #4:

Patient Goals: Impaired skin integrity

- 1. Pt.'s wounds on knee will continue to heal and decrease in size while in my care. Met
Unmet
- 2. Pt. will keep his blood sugar within the desirable range (70-110 mg/dL) to promote wound healing while in my care. Met
Unmet

Patient Resources: School nurse, pediatrician

Patient Teaching: insulin, signs and symptoms of hyper and hypoglycemia, glucose monitoring

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

Urine dip stick positive for ketones
 Blood glucose level 271, 274, 276
 Fasting glucose 126
 A1C 12%

NCLEX II (3): Health Promotion and Maintenance

Signs and Symptoms

not feeling like himself, bed wetting, lack of energy.
 He's lost weight since last visit. Eating and drinking more. Blurred vision when reading. 2 week old cuts on knee.

NCLEX II (3): Health Promotion and Maintenance

Contributing Risk Factors
 Age (12)
 Possible family history

NCLEX IV (7): Reduction of Risk

Therapeutic Procedures
Non-surgical
 N/A

Surgical
 N/A

Prevention of Complications
 (Any complications associated with the client's disease process? If not what are some complications you anticipate)
 Hyperglycemia
 Hypoglycemia
 Delayed wound healing
 Risk for infection

NCLEX IV (6): Pharmacological and Parenteral Therapies

Medication Management
 Insulin, insulin pen, insulin pump.

NCLEX IV (5): Basic Care and Comfort

Non-Pharmacologic Care Measures
 Emotional support
 Education
 Snacks in between meals
 OJ when hypoglycemic

NCLEX III (4): Psychosocial/Holistic Care Needs

Stressors the client experienced?
 New diagnosis
 Lack of knowledge on diagnosis
 Having to adjust
 Testing glucose levels in school
 Administering insulin_

Client/Family Education

Document 3 teaching topics specific for this client.

- Signs and symptoms hyper and hypoglycemia
- how to administer insulin
- how to monitor glucose levels

NCLEX I (1): Safe and Effective Care Environment

Multidisciplinary Team Involvement
 (Which other disciplines were involved in caring for this client?)
 Pediatrician
 Pediatrician's office nurse
 Nurse is hospital
 Hospital night nurse

Reflection Paper

Directions: Write a 1-page reflection paper for each patient using Times New Roman, 12 pt. font and double-spaced. Include the following:

1. Describe an "Aha" moment you experienced during this learning experience.
2. What were the most important aspects of this simulation and what did you learn?
3. How will this simulation experience impact your nursing practice?

Reflection

During this ATI module I assisted in the care of a 12-year-old boy who came to his pediatrician's office with signs and symptoms of type 1 diabetes, such as, bed wetting, lack of energy, weight loss, eating and drinking more, blurred vision when reading, and 2 weak old cuts on knee. An Aha moment for me during this ATI module was when he said that he was getting made fun of by his baseball team for having to check his glucose during practices and games. This took me by surprise because I forgot how kids can be when they don't understand something, or someone has to do things differently from them. I remember my friends in school who had to leave class early before lunch so they could go to the nurse to take their insulin. My classmates and I were always jealous of them for getting to go to lunch early until we realized they had to go get a shot every day before lunch. I didn't fully understand why they needed to take shots every day until my friend explained diabetes to me.

The most important aspect of this simulation was to educate the child and his mother on type 1 diabetes and how to manage it. There was a lot for them to learn regarding the disease and the mother seemed overwhelmed at times from all of the information given to her. I learned that it is important to answer all questions to the best of our ability and to be kind and patient with the pt. and their families when diagnosed with a new condition or disease because it can be very overwhelming and scary to them at first.

In the future I will use this new knowledge in my nursing career to remain patient and kind with my pts when they have been diagnosed with a new condition or disease because I have better insight on how drastic of a change it can make on their lives and how much information they are required to take in and understand in a short amount of time while also not feeling good physically and emotionally. I will also try my best to find resources for my pts. To be able to reach out o after they leave my care in case, they find themselves becoming overwhelmed or confused on how to manage their health outside of the hospital setting. Overall, I found this simulation to be interesting and a good refresher on diabetes and how to care for a pt. who has been diagnosed.

