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

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ATI Scenario: **PED 2 – 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**   **NCLEX IV** *(7)***: Reduction of Risk**

<u>Anatomy and Physiology</u>
<u>Normal Structures</u>

Insulin is a hormone made in the islets of Langerhans of the pancreas. Normally the pancreas continuously makes insulin and releases it into the blood stream, with an increased amount when food is being ingested. Insulin lowers blood glucose and facilitates a stable, normal glucose range 70-100 mg/dL. Insulin promotes the transport of glucose from the bloodstream into the cells, where the cells break down the glucose for energy. Muscle cells and the liver store excess glucose as glycogen. Plasma insulin rises after a meal and inhibits gluconeogenesis, enhances fat deposition of adipose tissue, and increases protein synthesis, because of this insulin is an anabolic, a storage hormone. The fall in insulin levels overnight, when the body is fasting, promotes the release of stored glucose from the liver, protein from muscle, and fat from adipose tissue.

<u>Pathophysiology of Disease</u>

The body needs glucose to fuel cells properly, when it does not have enough glucose it can be because insulin isn't being produced to take the sugar from the blood stream into the cells, could also be because the pancreas isn't producing enough insulin leaving the cells very hungry for more glucose, or it could be because the body isn't recognizing the insulin as a vehicle to get the glucose into the cells (this is called insulin resistance). With type 1 diabetes the pancreas doesn't produce insulin. If the body doesn't get the glucose the glucose it needs to produce energy, it will begin to break down fat for energy. If this happens for too long the body goes into a state of ketosis/Acidosis and the patient can become altered, dehydrated, and have electrolyte imbalances.

Type 1 diabetes is an autoimmune disorder in which the body develops antibodies against insulin and/or the pancreatic B cells that make insulin, this eventually results in a person not having enough insulin to survive. Exposure to a virus or genetic predisposition are factors that may contribute to the development of immune-related type 1 diabetes. Onset if type 1 diabetes is usually rapid and the first manifestations are usually acute.

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

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

Problem #1: Deficient Knowledge: Type 1 Diabetes _____

Patient Goals:

1. Client will identify adjustments in lifestyle to accommodate the diabetes plan with minimum stress

during my time of care.

2. Client will actively engage in self-care behaviors to manage diabetes during my time of care. _____

Assessments:

➢ Assess client's level of understanding of disease and disease progression and possible complications

daily. Assess client's comfort level daily, PRN, on self-injecting insulin. _____

Interventions (In priority order):

1. Educate, BID or PRN, on type 1 diabetes, with teach back understanding on disease. _____

2. Encourage client participation in diabetic management care plan, BID or PRN. _____

3. Educate, PRN, on proper administration of insulin, including dosing and self-infection with teach back

demonstration. _____

4. Educate with each meal or PRN, the importance of balanced meals and proper snacks, and have client

teach back with examples. _____

5. Educate BID on the importance of proper skin care and checking skin daily for breaks in skin and sores.

6. Educate the client on diabetic ketoacidosis, signs, symptoms, and what to do in the event of a DKA

episode, BID or PRN. _____

7. Educate, BID or PRN, importance of insulin schedule and maintaining insulin schedule. _____

Problem #2: Risk for unstable blood glucose level _____

Patient Goals:

1. Client will have few or no hyperglycemia or hypoglycemia emergencies during my time of care. _____

2. Client will maintain blood glucose levels at normal (70-100 mg/dL) or near normal levels during my

time of care. _____

Assessments:

➢ Check blood glucose QIDACHS to maintain levels near normal range of 70-100 mg/dL during my

time of care. Assess skin and feet daily for wounds and impaired skin. _____

Interventions (In priority order):

1. Educate client on how to check blood glucose, BID or PRN, and what to do when level in not in normal

    range of 70-100 mg/dL. _____

2. Educate client, BID or PRN, symptoms of hyperglycemia or hypoglycemia with client teach back of

    examples. _____

3. Provide properly balanced meals and snacks to prevent dips or spikes in blood glucose, PRN. _____

4. Administer insulin as prescribed with meals and PRN. _____

5. Educate on the importance of balancing exercise/sports with food intake, qshift or PRN. _____

6. Provide the client with resources for dietician and support groups prior to discharge. _____

To Be Completed During the Simulation
Nursing Notes

Time	I or E	Notes	Specify NDx #
Day 1 1300	E	Reports general fatigue, malaise, increase hunger and thirst, recent history of enuresis, blurred vision, lost about 8lbs in past 6 months, 2-week-old knee scrape that hasn't healed----------------------------------ML	1,4
1310	I	Performed urine dipstick---ML	2,3
1311	E	Urine positive for ketones--ML	2,3
1315	I	Performed blood glucose finger stick-------------------------------------ML	2,3
1316	E	Blood glucose 271 mg/dL---ML	2,3
1320	I	Advised and explained the need for hospitalization to confirm diagnosis of diabetes and to get blood sugar back under control--------------------ML	1,2,
1330	E	Settling in, questioning who will be part of care team--------------------ML	
1335	I	Explained members of care team and provided information on diabetes management, checklist of topics that will be covered, advised new prescriptions ordered from provider--ML	1,2,5
1340	E	Questioned what prescriptions were for-----------------------------------ML	1,5
1345	I	Explained additional laboratory tests ordered and would be calling provider for prescription for insulin--ML	1,2,5
1350	E	Mother questioned if insulin would help lower blood sugar-------------ML	1,5
1355	I	Educated on insulin and the need to check blood sugar frequently-----ML	1,5
1400	E	Expressed feeling overwhelmed---ML	1
1400	I	Offered reassurance would provide support and any additional information needed to make them comfortable---------------------------ML	1
1410	E	Questioned when blood glucose to be checked again--------------------ML	2
1415	I	Performed blood glucose testing---ML	2
1415	E	Blood glucose 274 mg/dL---ML	2
1420	I	Administered 4 units insulin--ML	2,3
1430	E	Mother questioned if lab results back, A1C 12%-----------------------ML	2,3
1450	I	Educated on A1C results--ML	1,5
1500	E	Mother verbally indicated understanding--------------------------------ML	1,5
1530	I	Provided snack, educated on importance of snacks between meals----ML	1,2,3
1545	E	Acknowledge need for snacks---ML	1,2,3
Day 2 0800	E	Mother questioned new lab results, fasting blood sugar still elevated-ML	2
0815	I	Educated on fasting glucose sugar test, how to manage and self-monitoring blood glucose--ML	1,5
0840	E	Verbally acknowledged understanding------------------------------------ML	1,5
0930	E	Playing game, got tearful for no reason, now sweating and irritable---ML	2,3
0940	I	Performed blood glucose testing--ML	2,3
0940	E	Blood glucose 58 mg/dL with manifestation of hypoglycemia---------ML	2,3
0940	I	Treated with 4oz orange juice--ML	2,3

Time	Type	Note	Codes
0955	I	Performed blood glucose testing--ML	2,3
0955	E	Blood glucose 82 mg/dL--ML	2,3
1010	I	Provided mid-morning snack, educated on hypoglycemia---------------ML	1,3,5
1015	E	Verbally acknowledged understanding of hypoglycemia teaching-----ML	1,3,5
1100	I	Educated on self-injecting insulin---ML	1,2,5
1130	E	Demonstrated and verbally stated understanding and being comfortable with insulin injections--ML	1,2,5
1145	E	Mother questioned about insulin pen--ML	5
1150	I	Provided information on insulin pen---ML	5
1215	E	Verbally stated understanding on insulin pen, Mother questioned about insulin pump--ML	5
1220	I	Provided information on insulin pump	5
1240	E	Verbally stated understanding on insulin pump-------------------------ML	5
1300	I	Educated on managing blood glucose when sick-----------------------ML	1,5
1330	E	Verbally stated understanding--ML	1,5
Day 3 1000	E	Dressed and ready to go home, states missing friends and doesn't want to miss any more baseball--ML	5
1030	I	Educated on physical activity and food intake before and during activity to prevent drops in blood sugar--ML	5
1030	E	Verbally stated understanding---ML	5
Follow up 1555	E	States doing well, but doesn't like to check blood sugar in front of friends, some of the kids make fun of him, and finger hurts-----------ML	1,5
1600	I	Educated on proper finger sticking and changes to decrease pain------ML	1,5
1605	E	Stated verbal understanding---ML	1,5
1610	I	Suggested to pick up medical alert ID bracelet or necklace------------ML	1
1615	E	Indicated understanding and would stop and pick one up after appointment--ML	1

Initials/ Signature _____

Actual Patient Problems & Goals

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

Problem #1: Deficient Knowledge: Type 1 Diabetes _____

    Patient Goals:

  1. D.N. Will actively engage in self-care behaviors to manage type 1 diabetes during my time of care.   Met X
                                                                                                   Unmet ☐

  2. D.N. will be able to recognize the signs and symptoms of hypoglycemia, hyperglycemia, and diabetic ketoacidosis with teach back. _____ Met X
                                                                                                                 Unmet ☐

Problem #2: Risk for unstable blood glucose level _____

    Patient Goals:

  1. D.N. blood glucose level will remain between 60 mg/dL – 120 mg/dL during my time of care. ___   Met ☐
                                                                                                       Unmet X

  2. D.N. will properly administer insulin as prescribed during my time of care. _____   Met X
                                                                                                       Unmet ☐

Problem #3: Risk for Injury _____

    Patient Goals:

  1. D.N. urine will remain free of ketones and glucose during my time of care. _____   Met X
                                                                                                       Unmet ☐

  2. D.N. will remain free of hypoglycemic events for the remainder of the hospital stay. _____   Met X
                                                                                                     Unmet ☐

Problem #4:Fatigue_____

    Patient Goals:

  1. D.N. will demonstrate less fatigue and more energy by being more active during my time of care.   Met X
                                                                                                       Unmet ☐

  2. D.N. will remain free of illness and maintain a healthy diet during my time of care. _____   Met X
                                                                                                     Unmet ☐

Problem #5: Readiness for enhanced knowledge: Diabetes and blood glucose monitoring _____

    Patient Goals:

  1. D.N. will take an active role in daily teachings of diabetes management during my time of care. __   Met X
                                                                                                       Unmet ☐

  2. D.N. will verbalize willingness make lifestyle adjustments to accommodate the diabetes management plan with minimal stress during my time of care. _____ Met X
                                                                                                     Unmet ☐

Patient Resources: Dietician, RN, Support groups, pamphlets, folder/binder on diabetes management _____

Patient Teaching: Understanding diabetes, monitoring blood glucose, hypoglycemia, dietary management, physical activity, hyperglycemia, ketonuria, diabetic ketoacidosis, and sick day management _____

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 dipstick
Blood Glucose
A1C

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

Signs and Symptoms
Blurred vision
Enuresis
Hungrier lately
Increased thirst
Decreased energy
Lost 8lbs in past 6 months
Unhealed abrasion on knee

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

Contributing Risk Factors

Paternal grandfather-HTN, hyperlipidemia
Mother - Asthma

Therapeutic Procedures
Non-surgical
Therapeutic communication & education

Surgical

NCLEX IV *(7)*: **Reduction of Risk**

Prevention of Complications
(Any complications associated with the client's disease process? If not what are some complications you anticipate)

Hypoglycemia
Hyperglycemia
Diabetic ketoacidosis
Insulin noncompliance

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

Medication Management

Insulin – Regular/NPH before breakfast & regular PRN before lunch & dinner

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

Non-Pharmacologic Care Measures
During hypoglycemic events:
Snacks
Hard Candies
OJ
Simple Carbs

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

Stressors the client experienced?
Sickness
Sports/exercise

Client/Family Education

Document 3 teaching topics specific for this client.
•Diabetes-disease management
•Monitoring of blood glucose
•Hypoglycemia
•Dietary Management
•Physical Activity
•Hyperglycemia, ketonuria, diabetic ketoacidosis
•Sick day management

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

Multidisciplinary Team Involvement
(Which other disciplines were involved in caring for this client?)
Dietician
AP
RN
Pharmacist
NP
Social Worker

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?

Type 1 diabetes can affect children at any age and each situation is different and education needs to be tailored to each client individually. Families that have children with a new onset of Type 1 diabetes will need a lot of education and understanding. Often there may not be anyone in the family that has had diabetes before and the whole disease and disease management can be very scarry to adults and definitely the children affected. My biggest take away from this activity is that there will be a lot of questions with a new diagnosis of any disease. Be patient, provide plenty of time to answer any questions a client may have. Provide them with information in paper form so that they have some form of back up to what was discussed so they can review it again on their own time and think about any questions they may have. Never appear to be impatient with the questions they ask, just because this may be something you teach often is completely new to them. No questions are silly or stupid and every question is worth your time to address to help your client accept and understand their new diagnosis. Never forget to address your clients when they are children, they need to be included in their care if they are expected to manage their disease properly.

I don't feel like I had a true "aha" moment with this scenario. The one thing to keep in mind is that kids can be cruel and because the client needed to check his blood sugar regularly and constantly, they were making fun of him because they saw him as different. Maybe they were just uncomfortable about it because they also don't understand the disease. Never discount a client's feelings no matter their age. Always answer all questions and address all concerns, even when they are coming from a child, remember they are the client and need to be made to feel validated and that they are being ridiculous.

Some of the most important things to remember is that a new diagnosis will require a lot of education, and sometimes repeating the education several times. As nurses we will see various conditions and diseases on a regular basis and think nothing about it but to a client this is a very scarry time and they need to be reassured and properly educated. Everyone learns differently so provide multiple forms of learning material and formats. Have the client demonstrate whenever possible to make sure they completely understand and can perform the

tasks properly, especially with children. The more they perform the task, the easier it becomes for them and it

becomes a learned habit and they are more likely to stick with their planned regime to manage their disease.

Education is the best way to support your clients and provide them with the best chance of successful

management of their disease.