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

Student Name: _Madison Tuttle_____

ATI Scenario: ___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: Risk for unstable blood glucose level_____

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

Anatomy and Physiology
Normal Structures

The hypothalamus controls endocrine organs such as the pancreas. The hypothalamus is part of the nervous system, an important autonomic nervous system and control center of the brain. The pancreas is located inside the stomach. The pancreas produces pancreatic islets called islet of Langerhans throughout the tissue. Two hormones produce by the islet cells, insulin and glucagon. The islet cells secrete insulin or glucagon in response to feeding and fasting states. Insulin acts on the body cells and increases the transport of glucose across membranes. Glucagon is an antagonist of insulin and help regulates the blood glucose and its primary target organ is the liver which breaks down any stored glucose and releases in into the bloodstream. Beta cells are activated when there are high levels of glucose and stimulate the release of insulin. Alpha cells stimulates the release of glucagon for low blood glucose levels.

NCLEX IV *(7)*: Reduction of Risk

Pathophysiology of Disease

Type 1 and type 2 diabetes.
Type 1 is an autoimmune destruction of insulin producing beta cells --- insulin resistance
Type 2 is mainly for lifestyles choices, sedentary life, unhealthy eating, and impaired glucose tolerance
Too much insulin can cause hypoglycemia
And too much glucagon or not enough insulin and cause a hyperglycemic state
Signs Polydipsia, polyphagia, polyuria
Somogyi effect is when there is so much insulin and dawn phenomenon is when there isn't enough insulin and decrease the snack

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

_____

Patient Goals:

1. __patient will maintain blood glucose level less than 140 by discharge

_____

2. __patient will maintain an A1c level less than 7 percent in 3 months follow up from discharge

_____

Assessments:

- _Assess signs of hyperglycemia and hypoglycemia q4 hrs. , assess blood glucose levels q8hrs ,, assess for anxiety, tremors , slurring of speech q 12hrs , assess temperature, pulse, weight q 8hrs , assess , assess current knowledge and understanding q shift, monitor urine output , albumin and creatinine levels q shift

  _____

Interventions (In priority order):

1. Administer Rapid acting Insulin 30mins before meals as needed PRN

   _____

2. ___Administer long actin insulin as needed PRN

   _____

3. ___Educate signs and symptoms of hyperglycemia and hypoglycemia as needed q shift

   _____

4. ___Educate how to monitor blood glucose levels as needed q shift

   _____

5. ____Encourage an exercise program q shift

   _____

6. __Encourage a diabetic diet low carbohydrate as needed q shift

   _____

Problem #2: __Deficient knowledge: unfamiliar with dietary modifications and insulin

_____

Patient Goals:

1. __patient will demonstrate knowledge of how to self-inject insulin by discharge

_____

2. __patient will verbalize signs and symptoms of hypo or hyperglycemia by discharge

_____

Assessments:

- __Assess current knowledge q shift, assess readiness to learn q shift , assess fears and concerns about diabetes q shift PRN , assess activity and social factors that affect treatment q shift , assess self-care behaviors q shift , assess understanding of medication dosages and times q 12hrs

  _____

Interventions (In priority order):

1. __Educate Long-acting insulin doesn't have a peak and last 24hrs q 12hrs

   _____

2. __Educate locations to give insulin and rotate sites as needed q shift

   _____

3. __Educate to wear a medical alert bracelet as needed q shift

   _____

4. ___Encourage exercise and to carry glucose tablets on person as needed q shift

   _____

5. __Educate to use insulin even when sick q shift

   _____

6. __Encourage a low carbohydrate diabetic diet q shift

   _____

<u>To Be Completed During the Simulation</u>

Nursing Notes

Time	*I or E*	Notes	Specify NDx #
0800	E	Mom reports her 12year old is feeling tired and doesn't want to play outside. Reports no fever but something looks wrong. Vitals signs within normal range – T 99.2F, P88, RR 18, BP 102/70, spo298%. BMI 17.8 lost 8lbs. Family hx HTN, asthma, and hyperlipidemia ----------MT	1,2
0815	E	Patient mom reports him being hungry more and clothes not fitting. Increased thirst, blurry vision and a scrape not fully healed. New onset of enuresis and nocturia	1
0820	I	Perform a ploy dipstick test ----------MT	1
0825	E	Urine dipstick showed positive ketones ----------MT	1
0825	E	Blood glucose 271 ----------MT	1
0830	I	Provided a diabetes management pamphlet and informed family on certain interdisciplinary members to expect during care ----------MT	1,2
0835	E	Recheck blood glucose level, blood glucose 274 ----------MT	1
0840	I	Administered 4 units of insulin behind right upper arm. Educated on cleaning the area before the Injection and the purpose of insulin lowers blood glucose level ----------MT	1,2
0840	E	Mom reports being unfamiliar with A1c ----------MT	2
0840	I	Educated family that A1c shows blood glucose over 3months and helps to determine if it is well controlled ----------MT	2
0845	E	Mom reports derrick being hungry ----------MT	1
0850	I	Provided Derek with 15grams of carbohydrates balanced with fiber, protein and fat. Six whole grain crackers with cheddar cheese for a snack----------MT	1
Nextday	E	Derek reports feeling "a little better". His fasting blood sugar blood sugar is still elevated but improving. Mom inquired about the difference between fasting blood sugar test and other test done throughout the day ----------mt	1,2
0800	I	Educated on fasting blood glucose level and the range 70-110 mg/dl----------MT	2
0820	E	Derek is sweating and irritable. Recheck blood glucose----------MT	1,2
0825	I	Provided 4oz of orange juice, educated family on carrying simple candy or 15g of carbohydrates in case blood sugar gets too low ----------MT	1,2
0830	E	Mom asked about the difference between insulins ----------MT	2
0830	I	Educated the family that regular insulin works within 3o minutes of being injected. Educated rotating injections sites, locations and how to give injections at a 90degree angle ----------MT	2
0845	E	Mom report researching an insulin pen and inquired about more information ----------MT	2
0855	I	Educated to store insulin pen at room temperature once opened and always give insulin at room temp to prevent subq tissue atrophy.	2

0900	E	Mom reported families in support groups for diabetes children use insulin pumps and wanted more information ----------MT	2
0905	I	Educated about insulin pump needles and changing it every 2 days----------MT	2
0910	I	Educated family on checking blood glucose every 3hours when hes sick ----------MT	1,2
0915	E	Derek displayed excitement to play baseball and soccer with his friends again. Mom displays misunderstanding diabetes and exercise ---------MT	2
0915	I	Educated family on Derek eating a complex carbohydrate before exercise ----------MT	2
0930	E	Inquired family bout any additional questions or concerns they may have regarding diabetes ----------MT	2
Follow up apt 0800	E	Reports embarrassment for checking blood sugar and having diabetes ----------MT	2
0800	I	Allowed Derek to explore his feelings and encourage communication about diabetes ----------MT	2
0810	E	Derek reports feeling embarrassed about stop what he's doing to stick his finger and reports his finger being sore "which makes it worse" -----MT	2
0810	I	Educated Derek to use a cotton ball to wipe away the first drop of blood from the puncture site ----------MT	2
0815	E	Derek report feeling much better about his diagnosis, and he's excited to be outside with friends again ----------MT	2

Initials/ Signature _MTuttleSNB_____

Actual Patient Problems & Goals

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

Problem #1: __Deficient Knowledge

_____

Patient Goals:

1. ___ patient will demonstrate knowledge of how to self-inject insulin by discharge _____ Met ☑ Unmet ☐

2. _ patient will verbalize signs and symptoms of hypo or hyperglycemia by discharge _____ Met ☑ Unmet ☐

Problem #2: __Risk for unstable blood glucose

_____

Patient Goals:

1. ___ patient will maintain blood glucose level less than 140 by discharge_____ Met ☑ Unmet ☐

2. patient will maintain an A1c level less than 7 percent in 3 months follow up from discharge _____ Met ☑ Unmet ☐

Problem #3: _____

Patient Goals:

1. _____ Met ☐ Unmet ☐
2. _____ Met ☐ Unmet ☐

Problem #4: _____

Patient Goals:

1. _____ Met ☐ Unmet ☐
2. _____ Met ☐ Unmet ☐

Problem #5: _____

Patient Goals:

1. _____ Met ☐ Unmet ☐
2. _____ Met ☐ Unmet ☐

Patient Resources: _Support groups, Diabetes educator _____

Patient Teaching: _rotating sites, types of insulins pen, pumps, diabetes and illness _____

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
Blood glucose 271 than 274mg/dl A1c 12%

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

Signs and Symptoms
Polyuria Polydipsia

Dipstick/urine analysis positive Creatinine 0.7 and BUN12		Slow wound healing Polyphagia Sweating Ketones in urine_ Fatigue Irritable Blurry vision

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

NCLEX IV *(7)*: Reduction of Risk

Contributing Risk Factors

Lack of beta cells –insulin producing cells

Therapeutic Procedures

Non-surgical

Blood glucose checks

Surgical

Prevention of Complications

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

Hypoglycemia

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

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

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

Medication Management

Regular insulin

Non-Pharmacologic Care Measures

40z OJ
6 whole grain crackers with cheddar cheese

Stressors the client experienced?

Embarrassment
Anxiety
Confusion

Client/Family Education

Document 3 teaching topics specific for this client.

- a1c less than 7% in 3 months
- rotating injection sites
- different types in insulin, pens and pumps

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

Multidisciplinary Team Involvement

(Which other disciplines were involved in caring for this client?)

Diabetic educator
Nurse
Doctor
Pharmacy

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?

My big "aha" moment during this learning experience was looking in the chart at the past medical/family history and noting there was no family history of diabetes. Not having a family history of diabetes and then your child developing it early on in childhood can put a lot of stress, anxiety and confusion on both mom and son. This experienced showed the why it is so important to educate families with this diagnosis and answer any questions or concerns they may have to make them as comfortable as possible while promoting independence. The most important aspect on this simulation had to be doing a thorough assessment, critically thinking/anticipating what might be causing the symptoms, and frequently educating the family throughout the hospital stay. I learned that allaying any feelings the patient or his mom may have and answering questions is a huge part of caring for diabetes mellitus patients. I also learned how important it is to check blood glucose every 3 hours if you are sick, illness may increase glucose requiring him to need more insulin. I also learned diabetic patients should always wear a medical alert bracelet to notify others including emergency personnel in case a diabetic crisis such as DKA or hypoglycemia happens. This simulation experienced my nursing practice by showing me the needed steps, tools, therapeutic communications I should carry with me if I ever have my own diabetes mellitus patient. This experienced help me identify ways to troubleshoot problems such as hypoglycemia event and providing orange juice to bring glucose levels back up. This simulation has prepared me to educate my patients to rotate injection sites, how to check glucose during illness, taking a 15g carbohydrate before exercising, the signs of hyperglycemia and hypoglycemia, the different types of insulin and when the effect starts.