

N433 Care Plan # 2

Lakeview College of Nursing

Taylor Hamilton

**Demographics (3 points)**

<b>Date of Admission</b> 9/04/2020	<b>Patient Initials</b> L.R.	<b>Age (in years &amp; months)</b> 16 years 6 months	<b>Gender</b> Male
<b>Code Status</b> Full	<b>Weight (in kg)</b> 128.3 kg	<b>BMI</b> 43.01 kg/m <sup>2</sup>	<b>Allergies/Sensitivities (include reactions)</b>  Latex and red dye No reactions listed

**Medical History (5 Points)**

**Past Medical History:** Fatty liver disease, obesity, Asperger's

**Illnesses:** Patient reported he was otherwise healthy

**Hospitalizations:** Patient reported he had no prior hospitalizations

**Past Surgical History:** Endoscopy

**Immunizations:** Up to date

**Birth History:** N/a

**Complications (if any):** No known complications

**Assistive Devices:** N/a

**Living Situation:** Lives at home with his mother, his parents are divorced.

**Admission Assessment**

**Chief Complaint (2 points):** Newly diagnosed with T1DM with hyperglycemia

**Other Co-Existing Conditions (if any):** Fatty liver disease, obesity

**Pertinent Events during this admission/hospitalization (1 points):** Education on new diagnosis

**History of present Illness (10 points):** Patient has a prior diagnosis of fatty liver disease and is considered obese. The patient was at an appointment with digestive health for his fatty liver disease, he has been seeing them for the past year and has lost 100lbs in the past six months. At his GI appointment he was then referred to Pediatric Endocrinology who admitted them to the Pediatric inpatient unit on 9/4 for a new diagnosis and management education of Type 1 Diabetes Mellitus. The patient's blood sugar was greater than 300 at the time of admission and his HgA1c was 13. There were also large traces of Ketones found in his urine that was going to continue to be monitored until there were two negative findings.

### **Primary Diagnosis**

**Primary Diagnosis on Admission (2 points):** Hyperglycemia with a new diagnosis of Type 1 Diabetes Mellitus

**Secondary Diagnosis (if applicable):** N/A

**Pathophysiology of the Disease, APA format (20 points):** Type 1 diabetes mellitus is a condition that can occur in adolescents when the pancreas no longer produces insulin. The body needs insulin to be able to break down glucose in the blood and get into the cells to be used for energy (Mayo Clinic, 2017). When the body is unable to produce insulin, the sugar builds up in the blood stream and is not able to be used for energy. Type 1 diabetes is typically diagnosed between the ages of 10-16 years old and occurs because the immune system is attacking the beta cells. Type 1 diabetes is not something that a person can prevent or avoid (Drugs.com, 2014). Some common signs or symptoms of diabetes is weakness, fatigue, excessive urination and extreme thirst. T1DM has a couple different tests that are used to help diagnose the condition. A random blood glucose test, a fasting plasma glucose tests, and a Hemoglobin A1C is typically

done. For the fasting glucose test, diabetes is diagnosed if the fasting blood sugar level is higher than 126 mg/dL, for the random blood glucose test, a blood sugar of 200 or more combined with symptoms can indicate a diagnosis, and a hemoglobin A1C of greater than 6.5% can be a diagnosis (Drugs.com, 2014). The patient was a 16-year-old male that was referred to an Endocrinologist from digestive health. When his blood sugar was taken in the Endo office, it was at 303. The patient also had a HgA1C of 13 which lead to his diagnosis of T1DM. There were also ketones found in his urine which was going to continue to be monitored until he had two negative voids. Two complications that can occur with diabetes mellitus that will need to be educated on is the potential of impaired skin integrity and also managing and being able to determine when his blood sugar levels are off.

**Pathophysiology References (2) (APA):**

Drugs.com. (2014). *Type 1 Diabetes Mellitus*. Drugs.Com; Drugs.com. <https://www.drugs.com/health-guide/type-1-diabetes-mellitus.html>

Mayo Clinic. (2017). *Type 1 diabetes in children - Symptoms and causes*. Mayo Clinic.

<https://www.mayoclinic.org/diseases-conditions/type-1-diabetes-in-children/symptoms-causes/syc-20355306>

**Active Orders (2 points)**

Order(s)	Comments/Results/Completion
<b>Activity:</b>	Up ad lib
<b>Diet/Nutrition:</b>	Regular diet
<b>Frequent Assessments:</b>	Q4 vitals
<b>Labs/Diagnostic Tests:</b>	Urine ketones with every void until negative x2

<b>Treatments:</b>	Education
<b>Other:</b>	
<b>New Order(s) for Clinical Day</b>	
<b>Order(s)</b>	<b>Comments/Results/Completion</b>
Continue education for new diagnosis	

**Laboratory Data (15 points)**

**CBC Highlight All Abnormal Labs**—Explanations must be in complete sentences and contain in-text citations in APA format.

<b>Lab</b>	<b>Normal Range (specific to the age of the child)</b>	<b>Admission or Prior Value</b>	<b>Today's Value</b>	<b>Reason for Abnormal Value</b>
<b>RBC</b>	N/A			
<b>Hgb</b>	N/A			
<b>Hct</b>	N/A			
<b>Platelets</b>	N/A			
<b>WBC</b>	N/A			
<b>Neutrophils</b>	N/A			
<b>Lymphocytes</b>	N/A			
<b>Monocytes</b>	N/A			
<b>Eosinophils</b>	N/A			
<b>Basophils</b>	N/A			

<b>Bands</b>	N/A			
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**Chemistry Highlight All Abnormal Labs**—Explanations must be in complete sentences and contain in-text citations in APA format.

<b>Lab</b>	<b>Normal Range</b>	<b>Admission or Prior Value</b>	<b>Today's Value</b>	<b>Reason For Abnormal</b>
<b>Na-</b>	135-145	136		
<b>K+</b>	3.5-5	3.9		
<b>Cl-</b>	95-105	104		
<b>Glucose</b>	70-99	241		Patient is a newly diagnosed diabetic (Mayo Clinic, 2018).
<b>BUN</b>	7-25	5		
<b>Creatinine</b>	0.6-1.2	.43		
<b>Albumin</b>		N/A		
<b>Total Protein</b>		N/A		
<b>Calcium</b>		N/A		
<b>Bilirubin</b>		N/A		
<b>Alk Phos</b>		N/A		
<b>AST</b>		N/A		
<b>ALT</b>	-	N/A		
<b>Amylase</b>		N/A		
<b>Lipase</b>		N/A		

**Other Tests** **Highlight All Abnormal Labs**—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab Test	Normal Range	Admission or Prior Value	Today's Value	Reason for Abnormal
ESR		N/A		
CRP		N/A		
Hgb A1c	Below 7	13		Patient has a new diagnosis of T1DM (Hitti, 2015).
TSH		N/A		

**Urinalysis** **Highlight All Abnormal Labs**—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab Test	Normal Range	Admission or Prior Value	Today's Value	Reason for Abnormal
Color & Clarity	Clear and yellow	Yellow/clear		
pH	4.5-7.2	6.0		
Specific Gravity	1.005-1.025	1.020		
Glucose	Negative	1000		Patient is hyperglycemic (Mayo Clinic, 2018).
Protein	Negative	trace		Patient is a newly diagnosed diabetic (Mayo Clinic, 2018).
Ketones	Negative	+++large		Patient is a newly diagnosed diabetic Mayo Clinic, 2018).
WBC	Negative	negative		
RBC	Negative	negative		
Leukoesterase	Negative	negative		

**Cultures** **Highlight All Abnormal Labs**—Explanations must be in complete sentences and contain in-text citations in APA format.

Test	Normal Range	Admission or Prior Value	Today's Value	Explanation of Findings
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<b>Urine Culture</b>		N/A		
<b>Blood Culture</b>		N/A		
<b>Sputum Culture</b>		N/A		
<b>Stool Culture</b>		N/A		
<b>Respiratory ID Panel</b>	Negative	Pending		Patient had a pending COVID Igg

**Lab Correlations Reference (APA):**

Hitti, M. (2001, October 25). *Hemoglobin A1c (HbA1c) Test for Diabetes*. WebMD; WebMD.

<https://www.webmd.com/diabetes/guide/glycated-hemoglobin-test-hba1c>

Mayo Clinic. (2018). *Protein in urine Causes*. Mayo Clinic.

<https://www.mayoclinic.org/symptoms/protein-in-urine/basics/causes/sym-20050656>

**Diagnostic Imaging**

**All Other Diagnostic Tests (5 points):** N/a

**Diagnostic Test Correlation (5 points):** N/a

**Diagnostic Test Reference (APA):**

**Current Medications (8 points)**  
**\*\*Complete ALL of your patient's medications\*\***

<b>Brand/Generic</b>	Insulin Aspart NovoLOG				
<b>Dose</b>	BS-150/15 Carb ratio: 1:4				
<b>Frequency</b>	3 times a day before meals				
<b>Route</b>	SubQ				
<b>Classification</b>	Anti-diabetic hormone				
<b>Mechanism of Action</b>	Lowers blood glucose by stimulating glucose uptake in skeletal muscle and fat. Inhibiting hepatic glucose production				
<b>Reason Client Taking</b>	New diagnosis of T1DM				
<b>Concentration Available</b>	Dependent upon pen/vial available once home meds are determined				
<b>Safe Dose Range Calculation</b>	Dependent upon patients diet				
<b>Maximum 24-hour Dose</b>	Dependent on the patients diet				
<b>Contraindications (2)</b>	Hypoglycemia, allergy to insulin				
<b>Side Effects/Adverse Reactions (2)</b>	Hypoglycemia, swelling				

<p><b>Nursing Considerations (3)</b></p>	<p>Ensure to take blood sugar before taking, Ensure to correctly calculate dosage based on given equation, Ensure to rotate injection sites</p>				
<p><b>Client Teaching needs (2)</b></p>	<p>How to calculate how much insulin to give How to check blood sugar</p>				

**Medication Reference (APA):**

Jones & Bartlett Learning. (2019). *2019 Nurses drug handbook*. Burlington, MA.

### Assessment

#### Physical Exam (18 points)

<b>GENERAL (1 point):</b> <b>Alertness:</b> <b>Orientation:</b> <b>Distress:</b> <b>Overall appearance:</b>	A&Ox3, in no acute distress. Patient is a 16 yr old obese male, but appears to be stated age.
<b>INTEGUMENTARY (2 points):</b> <b>Skin color:</b> <b>Character:</b> <b>Temperature:</b> <b>Turgor:</b> <b>Rashes:</b> <b>Bruises:</b> <b>Wounds: .</b> <b>Braden Score:</b> <b>Drains present: Y <input type="checkbox"/> N <input type="checkbox"/></b> <b>Type:</b>	Skin is pink, warm and intact, temperature at 0805 was 97.9, turgor was within 3 seconds. No bruises or wounds present. Small rash on his right side under his arm. No drains present, braden score N/A due to not having log ons.
<b>HEENT (1 point):</b> <b>Head/Neck:</b> <b>Ears:</b> <b>Eyes:</b> <b>Nose:</b> <b>Teeth:</b> <b>Thyroid:</b>	Head and neck symmetrical, No drainage in the ears, eyes, nose or throat. All teeth present, thyroid palpable.
<b>CARDIOVASCULAR (2 points):</b> <b>Heart sounds:</b> <b>S1, S2, S3, S4, murmur etc.</b> <b>Cardiac rhythm (if applicable):</b> <b>Peripheral Pulses:</b> <b>Capillary refill:</b> <b>Neck Vein Distention: Y <input type="checkbox"/> N <input type="checkbox"/></b> <b>Edema Y <input type="checkbox"/> N <input type="checkbox"/></b> <b>Location of Edema:</b>	Heart sounds present and strong. S1 and S2 present. No murmurs or gallops present. Peripheral pulses present and strong. Capillary refill within 3 seconds. No neck vein distention or edema present.
<b>RESPIRATORY (2 points):</b> <b>Accessory muscle use: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></b> <b>Breath Sounds: Location, character</b>	Breath sounds clear and equal, no crackles, wheezes, or rubs. No accessory muscle use.
<b>GASTROINTESTINAL (2 points):</b> <b>Diet at home:</b> <b>Current diet:</b> <b>Height (in cm):</b>	Patient is on a regular diet at home. Patient has lost almost 100lbs in the last month with diet and lifestyle changes at home. Patient is on a regular diet currently. Patient is 172.7 cm tall. This

<p><b>Auscultation Bowel sounds:</b>  <b>Last BM:</b>  <b>Palpation: Pain, Mass etc.:</b>  <b>Inspection:</b>              <b>Distention:</b>              <b>Incisions:</b>              <b>Scars:</b>              <b>Drains:</b>              <b>Wounds:</b>  <b>Ostomy: Y <input type="checkbox"/> N <input type="checkbox"/></b>  <b>Nasogastric: Y <input type="checkbox"/> N <input type="checkbox"/></b>              <b>Size:</b>  <b>Feeding tubes/PEG tube Y <input type="checkbox"/> N <input type="checkbox"/></b>              <b>Type:</b></p>	<p>nursing student was able to auscultate bowel sounds in all four quadrants and his last BM was on 9/3. No pain was felt with palpation. No distension, incisions, scars, drains or wounds seen upon inspection. No ostomy, NG or feeding tube.</p>
<p><b>GENITOURINARY (2 Points):</b>  <b>Color:</b>  <b>Character:</b>  <b>Quantity of urine:</b>  <b>Pain with urination: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></b>  <b>Dialysis: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></b>  <b>Inspection of genitals:</b>  <b>Catheter: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></b>              <b>Type:</b>              <b>Size:</b></p>	<p>Clear and yellow urine, No pain with urination, and no catheter present. Patient voided x2 on his own.</p>
<p><b>MUSCULOSKELETAL (2 points):</b>  <b>Neurovascular status:</b>  <b>ROM:</b>  <b>Supportive devices:</b>  <b>Strength:</b>  <b>ADL Assistance: Y <input type="checkbox"/> N <input type="checkbox"/></b>  <b>Fall Risk: Y <input type="checkbox"/> N <input type="checkbox"/></b>  <b>Fall Score:</b>  <b>Activity/Mobility Status:</b>  <b>Independent (up ad lib) <input type="checkbox"/></b>  <b>Needs assistance with equipment <input type="checkbox"/></b>  <b>Needs support to stand and walk <input type="checkbox"/></b></p>	<p>Neurovascular status intact and has full range of motion. Patient does not use any supportive devices and has equal and strong strength. No ADL assistance needed. Patient was not considered by the floor to be a fall risk. This nursing student was unable to calculate fall score due to not having EPIC log ons. Patient was up ad lib with no assistance needed.</p>
<p><b>NEUROLOGICAL (2 points):</b>  <b>MAEW: Y <input checked="" type="checkbox"/> N <input type="checkbox"/></b>  <b>PERLA: Y <input checked="" type="checkbox"/> N <input type="checkbox"/></b>  <b>Strength Equal: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> if no -</b>  <b>Legs <input type="checkbox"/> Arms <input type="checkbox"/> Both <input checked="" type="checkbox"/></b>  <b>Orientation:</b>  <b>Mental Status:</b>  <b>Speech:</b></p>	<p>Mental status intact, no speech or sensory issues, orientated x3, no LOC, strength equal and strong in all 4 limbs.</p>

<b>Sensory: LOC:</b>	
<b>PSYCHOSOCIAL/CULTURAL (2 points): Coping method(s) of caregiver(s): Social needs (transportation, food, medication assistance, home equipment/care): Personal/Family Data (Think about home environment, family structure, and available family support):</b>	Patient is a 16 year old obese male. Patient lives at home with his mother and goes to his dad's house every other weekend. Mom is his main supporter and was active in his education and care learning about his new diagnosis. Patient is a junior in high school at Mt. Zion and enjoys taking his college classes at a local community college for engineering. Patient reported he enjoys going to school and likes math. Patient's dad was also coming to the hospital to learn and have education on his new diagnosis and insulin administration.

**Vital Signs, 1 set (2.5 points)**

<b>Time</b>	<b>Pulse</b>	<b>B/P</b>	<b>Resp Rate</b>	<b>Temp</b>	<b>Oxygen</b>
0805	110	143/78  Map 102	20	97.0	98%

**Normal Vital Sign Ranges (2.5 points)  
\*\*Need to be specific to the age of the child\*\***

<b>Pulse Rate</b>	60-100
<b>Blood Pressure</b>	110-131/64-83
<b>Respiratory Rate</b>	12-20
<b>Temperature</b>	97.6-100.0
<b>Oxygen Saturation</b>	90%+

**Normal Vital Sign Range Reference (APA): PALS**

**Pain Assessment, 2 sets (2 points)**

<b>Time</b>	<b>Scale</b>	<b>Location</b>	<b>Severity</b>	<b>Characteristics</b>	<b>Interventions</b>
0805	1-10	N/A	0	N/A	N/A
<b>Evaluation of pain status <i>after</i> intervention</b>	0	N/A	N/A	N/A	N/A
<b>Precipitating factors:</b> <b>Physiological/behavioral signs:</b> Patient reported that he was in no pain					

**Intake and Output (1 points)**

<b>Intake (in mL)</b>	<b>Output (in mL)</b>
100% of breakfast	Void x2

**Developmental Assessment (6 points)**

**\*Be sure to highlight the achievements of any milestone if noted in y our child. Be sure to highlight any use of diversional activity if utilized during clinical. There should be a minimum of 3 descriptors under each heading\***

**Age Appropriate Growth & Development Milestones**

1. Increased ability to perform abstract thinking – discussed with this nursing student about how he is in engineering classes while also going to high school and enjoys math and critical thinking.
2. Likes making independent decisions – his mother discussed how he likes to be independent and encouraged him to determine if he would like his father present or not and did not put any pressure on him to have his dad present in the hospital.
3. Focuses on bodily changes and body image – over the past six months, the patient has changed his diet and made lifestyle changes and has lost almost 100 pounds.

(Information found on Erikson and Piaget table listed in Edvance360 by Professor Marion)

### **Age Appropriate Diversional Activities**

1. Spending time with peers doing commonly enjoyed activities
2. Encouraging at least 30 mins of exercise per day
3. Screen activities (video/computer games – but limiting the time per day)

(Information found on Erikson and Piaget table listed in Edvance360 by Professor Marion)

### **Psychosocial Development:**

**Which of Erikson's stages does this child fit?** Identity vs Role confusion

**What behaviors would you expect?** Focusing on bodily changes and body image and importance placed on conformity to peer norm and peer acceptance.

**What did you observe?** The patient had lost 100lbs in the past six months

(Information found on Erikson and Piaget table listed in Edvance360 by Professor Marion)

### **Cognitive Development:**

**Which stage does this child fit, using Piaget as a reference?** Formal Operational

**What behaviors would you expect?** Egocentric thinking, increased ability to perform abstract thinking, thinks they are invincible, likes making independent decisions.

**What did you observe?** The patient was able to relate with the nurse when he was using descriptions when giving education on T1DM. The patient was also encouraged and asked about what kind of food changes he would be able to make to conform to his new lifestyle changes

(Information found on Erikson and Piaget table listed in Edvance360 by Professor Marion)

**Vocalization/Vocabulary:**

**Development expected for child’s age and any concerns?** The patient seemed like a very smart and well developed 16 y/o male.

**Any concerns regarding growth and development?** The only concern this nursing student would have would be his obesity and fatty liver disease with his new diagnosis of T1DM.

**Nursing Diagnosis (15 points)**

**\*Must be NANDA approved nursing diagnosis and listed in order of priority\***

<p><b>Nursing Diagnosis</b></p> <ul style="list-style-type: none"> <li>• Include full nursing diagnosis with “related to” and “as evidenced by” components</li> </ul>	<p><b>Rational</b></p> <ul style="list-style-type: none"> <li>• Explain why the nursing diagnosis was chosen</li> </ul>	<p><b>Intervention (2 per dx)</b></p>	<p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• How did the patient/family respond to the nurse’s actions?</li> <li>• Client response, status of goals and outcomes, modifications to plan.</li> </ul>
<p><b>1.</b> Risk of knowledge deficit related to new diagnosis of T1DM as evidence by having no prior knowledge of Diabetes Mellitus</p>	<p>The patient had a new diagnosis of T1DM and had no prior family history or knowledge of DM. This was chosen because for him to be successful with his new diagnosis of DM he will need to understand about his new diagnosis and how to take</p>	<p><b>1.</b> Educate on how to find blood sugar levels. <b>2.</b> Educate on how to calculate how much insulin he should give based on the blood sugar level.</p>	<p>Both the patient and his mom were very engaged and receptive in the education that they were being given. They were asking questions when they arose and being able to teach back what they were being told.</p>

	care of himself		
2. Risk for unstable blood glucose related to insulin resistance as evidence by HgA1c of 13.	Patient will have to learn how to regulate and stay on top of his glucose levels with his new diagnosis and not having a good understanding of how exactly to manage.	1. Educate on times to check his blood sugar  2. Educate on feelings he could have if his blood sugar is too high or too low and what to do to correct it.	Patient was able to teach back that he should never let his blood sugar drop too low.
3. Risk for impaired skin integrity related to decreased circulation as evidence by small rash on left side of body	Patient had a small rash that the pediatrician said was likely related to his diabetes and increased weight.	1. Educate to do regular skin checks  2. Educate on drying the skin well especially around the areas where skin overlaps, groin, and axilla.	Patient and his mother was educated by the doctor after seeing a small rash on his left side that he should make sure he is cleaning and drying himself well to prevent skin breakdown. He was also educated on how he is more prone to skin breakdown and they both seemed to understand.
4. Risk for infection related to elevated blood glucose levels as evidence by blood glucose level 303 at admission	Patient is at a greater risk for infections with his new diagnosis which is something he will need to be aware of.	1. Educate on staying hydrated  2. Educate to never skip an insulin dose even if feeling unwell.	Patient and his mother had education on staying hydrated and not missing times that he needs to check his BS and possibly give insulin.

**Other References (APA):**

Erikson and Piaget table listed on Edvance360 by Professor Marion

**Concept Map (20 Points):**



**Subjective Data**

Patient reported he had been more tired lately  
Patient's mom reported he sometimes has irritation under the folds of skin under the chest /stomach  
Patient reported he occasionally has severe fatigue

**Nursing Diagnosis/Outcomes**

**Objective Data**

HgA1c of 13  
Blood glucose 303  
Ketones present in urine  
Small rash on the left side of his body.  
Pulse: 110  
BP: 143/78 map 102  
RR: 20  
Temp: 97.0  
O2: 98%

**Patient Information**

16-year-old male that has a previous diagnosis of fatty liver disease and obesity. He has a new diagnosis of T1DM. The patient has a history of fatty liver disease and obesity.

**Nursing Interventions**

