N441 Care Plan

Lakeview College of Nursing

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Demographics (3 points)

Date of Admission 04/04/2022	**Client Initials** FJ	**Age** 64 years	**Gender** Male
Race/Ethnicity Caucasian	**Occupation** Retired	**Marital Status** Married	**Allergies** Lactose-GI Pioglitazone-Nausea
Code Status Full	**Height** 183 centimeters	**Weight** 98 kilograms	

Medical History (5 Points)

Past Medical History: The patient has a past medical history of hypertension, chronic-kidney disease, chronic neck pain, diabetic neuropathy, anemia, diabetes mellitus II, erectile dysfunction, heart murmur, hyperlipidemia, and obesity.

Past Surgical History: The patient has undergone the following surgeries: cataract extraction (2014), coloscopy (2014), kidney stone removal (2004).

Family History: The patient's father had a history of alcohol abuse, aneurysm, depression, diabetes, and hypertension. The patient's mother has a history of pancreatic cancer. The patient's maternal grandfather had a history of coronary artery disease.

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use): The patient occasional uses alcohol (he was unable/unwilling to express anymore. The patient denies drug use. The patient used to smoke 40y/o and quit at 46y/o. (from chart)

Assistive Devices: No assistive devices used.

Living Situation: The patient lives at home with his wife and kid.

Education Level: The patient has a high school education (diploma) and some college (no degrees).

Admission Assessment

Chief Complaint (2 points): Altered mental status and possible seizure.

History of Present Illness – OLD CARTS (10 points): The patient is a 64 y/o male that presented to the emergency room with an altered mental status and very combative having swung at EMS and crew. The patient's wife called 911 around 2100 on the night of April 4, 2022. When EMS arrived on scene wife claimed that she believes that the patient had had a seizure. EMS state the patient was very stuporous until they got going in the ambulance. While en route to the hospital patient became very combative and began striking EMS crew. EMS initiated restraints and arrived at the emergency department. While there the patient continued being combative and screaming "help me". Medication restraints were used to sedate the patient (Precedex) which did alleviate much of the combativeness. Patient does not appear in pain, just highly confused and agitated. Wife has not shown up to give more information at this time. Transferred to the ICU for more long term and intensive care.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): HHS

Secondary Diagnosis (if applicable): N/A

Pathophysiology of the Disease, APA format (20 points):

HHS is an acute complication typically associated with type II diabetes. This disease is characterized by critically high plasma glucose levels, hyperosmolarity, and dehydration (Capriotti, 2020). Type II diabetes mellitus is the basis of HHS. In type II diabetes mellitus, the body becomes resistant to the insulin created by the body meaning glucose is not absorbed and used by the cells (Capriotti, 2020). Glucose not being absorbed by the cells creates a gradient that pulls water out of the intracellular space into the extracellular space. This is how dehydration occurs (Capriotti, 2020). While the cells are being deprived of water, there is also the deprivation of energy in the form of glucose as it is unable to be absorbed by the cell (Capriotti, 2020). The body attempts to compensate this by activating mechanisms that enters starvation mode with hepatic glycogen breakdown and activation of gluconeogenesis (Capriotti, 2020). As a result, blood glucose levels rise even higher as the cells are still unable to take in the glucose that the body has just increased.

Concurrently, the body enters glucosuria diuresis which is glucose excreted in the urine. The nephrons attempt to filter the glucose-rich blood; however, the glucose reabsorption threshold is exceeded which causes large amounts of glucose to remain in the soon to be urine (Capriotti, 2020). The glucose within the tubule then pulls more water into the tubule causing more water to be excreted than typical. The patient in question had a blood glucose reading of over 900. Thus, the patient is dehydrated and has large amounts of glucose in their urine.

The first complaints or signs and symptoms that will present will be thirst and polyuria (Hinkle & Cheever, 2018). A mild metabolic acidosis may be present in patients that have

nonketotic HHS (Hinkle & Cheever, 2018). A massive parameter of this is a blood glucose of over 600 mg/dL, which the patient did have (Hinkle & Cheever, 2018). The metabolic acidosis in HHS is typically much less severe than it is in DKA. Further complaints include anorexia, weight loss, weakness, visual disturbances, poor tissue turgor, tachycardia, and confusion (Hinkle & Cheever, 2018). Seizures and other neurological deficits may occur (Hinkle & Cheever, 2018). The patient had many of these including confusion and he was brought in due to a possibility of seizure activity. Anymore were not able to be obtained yet as he was coming off a sedative and the wife had not yet been to the hospital.

Some manifestations of HHS include a blood glucose level of greater 600 mg/dL, extremely high blood osmolarity levels, dehydration, potassium level changes, sodium level changes, hypotension, and abdominal distension (Hinkle & Cheever, 2018). The patient presents with the high blood glucose levels, dehydration, and potassium/sodium level changes. HHS management is straight forward. The main goal of HHS treatment is IV rehydration, electrolyte replacement, and IV insulin (Capriotti, 2020). IV insulin should be continued until the patient reaches a blood glucose level of 300 mg/dL at which point a sliding scale injected subcutaneously can be done instead. The patient has successfully reached that point and is in fact on a sliding scale for insulin. His fluids had also been discontinued at some point during the night as well. He had a magnesium drip going that as well was also discontinued.

Pathophysiology References (2) (APA):

Capriotti, T. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed). F.A. Davis Company.

Hinkle, J. L. & Cheever, K. H. (2018). *Brunner & Suddarth's textbook of medical-surgical*

nursing (14th ed). Walters Kluwer

Laboratory Data (15 points)

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

Lab	Normal Range	Admission Value	Today's Value	Reason for Abnormal Value
RBC	3.80 - 5.41	3.33	N/A	Low due to his history of anemia (Capriotti, 2020).
Hgb	11.3 - 15.2	10.1	N/A	Low due to his history of anemia (Capriotti, 2020).
Hct	33.2 - 45.3	31.4	N/A	Low due to his history of anemia (Capriotti, 2020).
Platelets	149 – 393	216	N/A	N/A
WBC	4.0 - 11.7	9.5	N/A	N/A
Neutrophils	45.3 - 79.0	65.9	N/A	N/A
Lymphocytes	11.8 - 45.9	26.2	N/A	N/A
Monocytes	4.4 - 12.0	6.2	N/A	N/A
Eosinophils	0.0 - 6.3	1.2	N/A	N/A
Bands	0.2 - 1.6	0.5	N/A	N/A

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

Lab	Normal Range	Admission Value	Today's Value	Reason For Abnormal
Na-	136 – 145	129	142	High glucose levels draw water out of the intracellular space

				causing a reduction of serum sodium levels (Capriotti, 2020).
K+	3.5 - 5.1	4.8	3.7	N/A
Cl-	98 – 107	94	113	Chloride can alter in both dehydration and CKD (Capriotti, 2020).
CO2	21 – 31	20	21	This value is just slightly low, and this may be due to his diagnosis of CKD (Capriotti, 2020).
Glucose	74 – 109	962	180	His blood glucose levels being this high is strictly due to a lack of medication compliance and lack of great diabetic control (Capriotti, 2020).
BUN	7 – 25	36	32	High BUN levels show poor kidney control. Hid diagnosis explains why he has a high BUN level (Capriotti, 2020).
Creatinine	0.60 - 1.20	1.94	1.51	High creatinine levels again show how well your kidneys are working and he again has CKD. Also, with his blood sugars being so high dehydration may explain the high BUN readings (Capriotti, 2020).
Albumin	3.5 - 5.2	3.8	3.2	Albumin being low can again be traced back to CKD, however, there is evidence that he does not take good care of himself so this could also be due to a poor nutrition (Capriotti,

				2020).
Calcium	8.6 - 10.3	8.2	7.9	This can be seen in HHS and with his diagnosis of CKD (Capriotti, 2020).
Mag	1.6 - 2.4	1.4	1.5	This low magnesium level is seen due to poor diet/diabetes control and his hyperglycemic state (Capriotti, 2020).
Phosphate	2.5 - 4.5	N/A	N/A	N/A
Bilirubin	0.3 - 1.0	0.7	0.5	N/A
Alk Phos	34 – 104	129	99	An elevated Alk Phos can be seen with poor diabetes control (Capriotti, 2020).
AST	13 – 39	34	28	N/A
ALT	7 – 52	94	75	ALT is high due to poor diabetes control and obesity (Capriotti, 2020).
Amylase	30 – 110	N/A	N/A	N/A
Lipase	24 – 151	N/A	N/A	N/A
Lactic Acid	0.5 - 2.0	5.3	0.8	The lactic acid level being high is either due to the ictal phase of a seizure or with him being so combative, he may have increased these levels to where they are at (Capriotti, 2020).
Troponin	0.000 - 0.030	0.021	N/A	N/A
CK-MB	5 – 25	2.76	N/A	N/A
Total CK	30 – 223	51	N/A	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**	**Value on**	**Today's Value**	**Reason for**

		Admission		Abnormal
INR	0-11	N/A	N/A	N/A
PT	11 – 13.5	N/A	N/A	N/A
PTT	25 – 35	N/A	N/A	N/A
D-Dimer	0 – 250	N/A	N/A	N/A
BNP	0 – 100	N/A	N/A	N/A
HDL	40 – 100	N/A	N/A	N/A
LDL	0 – 100	N/A	N/A	N/A
Cholesterol	0 – 200	N/A	N/A	N/A
Triglycerides	0 – 149	N/A	N/A	N/A
Hgb A1c	0 – 5.7	N/A	N/A	N/A
TSH	0.45 - 5.33	N/A	N/A	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	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity	Colorless Clear	Colorless/Clear	N/A	N/A
pH	5.0 - 8.0	5.5	N/A	N/A
Specific Gravity	1.005 - 1.034	1.024	N/A	N/A
Glucose	Negative	>1000	N/A	When blood glucose levels surpass 180, glucose begins to spill over into urine. His blood glucose levels were at 962 and even his most recent value was over 180 (Capriotti, 2020).
Protein	Negative	Negative	N/A	N/A
Ketones	Negative	Negative	N/A	N/A
WBC	0 – 5	<1	N/A	N/A
RBC	0 – 3	2	N/A	N/A
Leukoesterase	Negative	Negative	N/A	N/A

Arterial Blood Gas Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
pH	7.35 - 7.45	7.24	7.42	This is a low reading as the patient is expected to be in metabolic acidosis (Capriotti, 2020).
PaO2	35.0 - 45.0	53.8	94.3	He was placed on O2 which is the reason that this is high (Capriotti, 2020).
PaCO2	75.0 - 85.0	47	33.3	This follows the belief that he is in metabolic acidosis (Capriotti, 2020).
HCO3	22.0 - 26.0	17.6	22.6	This follows the belief that he is metabolic acidosis (Capriotti, 2020).
SaO2	95.0 - 98.0	76.8	98.0	This follows the belief that he is

				metabolic acidosis (Capriotti, 2020).

These were form a VBG not an ABG.

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

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
Urine Culture	Negative	N/A	N/A	N/A
Blood Culture	Negative	N/A	N/A	N/A
Sputum Culture	Negative	N/A	N/A	N/A
Stool Culture	Negative	N/A	N/A	N/A
COVID 19	Negative	N/A	N/A	N/A

Lab Correlations Reference (1) (APA):

Capriotti, T. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed). F.A. Davis Company.

Sarah Bush Lincoln Health Center (2021). Cerner. https://www.sarahbush.org/

Diagnostic Imaging

All Other Diagnostic Tests (5 points): Diagnostic Test Correlation (5 points):

EKG. An EKG was placed as a precaution that most of the patients in the ICU get to monitor heart rhythms. This patient has a history of heart murmurs and on top of that no one fully knows the extent of his coming into the ED. He also has lower levels of both magnesium and potassium which can cause arrhythmias (Capriotti, 2020).

CXR. A chest x-ray was ordered and done as well. The results were insignificant. The chest XR was done to rule out infections such as pneumonia. In patients with DKA (which is what they believed it was at the time) there is a high chance of getting a pulmonary infection (Capriotti, 2020).

CT of head. A CT without contrast of the patient's head was done as well. The results were inconclusive as imaging stated that the patient would not remain still hindering the results of the CT scan. They recommended that he be scheduled another one. A CT has been ordered

this morning. A CT is being done to assess the head as he came into the ED with a possible seizure and altered mental status (Capriotti, 2020).

Diagnostic Test Reference (1) (APA):

Capriotti, T. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed). F.A. Davis Company.

Current Medications (10 points, 1 point per completed med)

10 <u>different</u> medications must be completed

Home Medications (5 required)

Brand/Generic	Glucophage/ metformin	Amaryl/ glimepiride	Ozempic/ semaglutide	Farxiga/ dapagliflozin	Gralise/ gabapentin
Dose	1000mg	4mg	14mg	5mg	800mg
Frequency	BID	BID	Daily	Daily	TID
Route	PO	PO	PO	PO	PO
Classification	Anti-diabetic/ biguanide	Anti-diabetic/ sulfonylureas	Anti-diabetic/ incretin mimetics	Anti-diabetic/ SGLT2 inhibitor	Anti-seizure/ anticonvulsant
Mechanism of Action	Metformin lowers glucose by inhibiting hepatic gluconeogenesis and opposing the action of glucagon.	Glimepiride lowers blood sugar by stimulating the release of insulin and inducing increased activity of intracellular insulin receptors.	Semaglutide works by stimulating insulin production and secretion while also lowering glucagon secretion.	Dapagliflozin works by inhibiting SGLT2 thereby reducing reabsorption of filtered glucose and promoting urinary glucose excretion.	Gabapentin works by inhibiting alpha 2-delta subunits of voltage-gated calcium channels.
Reason Client Taking	Client is taking to help control his DM.	Client is taking to help with control of his DM.	Client is taking to help control his DM.	Client is taking to help with control of his DM.	Help with diabetic neuropathy.
Contraindications (2)	Contraindicated in patients with impaired renal/hepatic function and acute/chronic	Contraindicated in patients that are hypoglycemic and if the person has Addison's disease.	Contraindicated in patients with diabetic retinopathy and medullary thyroid cancer.	Contraindicated in patients that have uncontrolled cholesterol levels and	Contraindicated in patients that have depression and suicidal thoughts. Also, in patients with

	metabolic acidosis.			pregnancy.	decreased lung function.
Side Effects/Adverse Reactions (2)	Side effects include heartburn and GI symptoms such as N/V/D.	Side effects include hypoglycemia, unexplained weight gain, and headaches.	Side effects include GI symptoms such as N/V/D and a loss in appetite.	Side effects include yeast infections, urinary changes, and a sore throat.	Side effects include mood shifts and drowsiness (this side effect should go away as the body adapts to the drug).
Nursing Considerations (2)	GI complaints can be seen in more abundance when taken in higher doses, also be sure to store in a tight container within a cool place.	While on this medication watching for signs of hyponatremia and you will also need to watch their blood sugars.	If this is given to a patient with diabetic retinopathy pay close attention to worsening of the problem. There is a chance of pancreatitis while on this medication so be looking for the S/S of pancreatitis.	Assess for hypoglycemic signs and symptoms. May also need to evaluate renal function once started.	This drug increases the risk of depression and suicidal thoughts so vigilant monitoring should be done. It may also depress breathing.
Key Nursing Assessment(s)/ Lab(s) Prior to Administration	Try to identify how well the diabetes is controlled and you may also need to take blood pressures.	Blood sugars and blood pressures should be monitored.	Blood sugars and renal function tests should be monitored.	Blood sugars and blood pressures should be checked as this can cause both to drop.	Mental status to trend any depression/suicidal ideation.
Client Teaching needs (2)	It is best to take with food if GI symptoms occur and take daily without discontinuing abruptly.	Take with the first meal of the day and exercise daily.	Read and follow all directions on the prescription/Dr ordered and take with food to reduce the effects of GI symptoms.	Take this medication at the same time everyday and if a dose is missed take it as soon as remembered.	Take the capsule/tablet whole. Do not crush, chew, break, or open it. Do not discontinue abruptly.

Hospital Medications (5 required)

Brand/Generic	Novolog/ insulin aspart	Protonix/ pantoprazole	Magnesium Sulfate/ magnesium sulfate	Haldol/ haloperidol	Precedex/ dexmedetomidine
Dose	5units/hour	40mg	2G	5mg	0.4mcg/kg/hour
Frequency	Continuous	Daily	Once	Once	Continuous
Route	IV Drip	PO	IV Piggyback	IV Push	IV Drip
Pharmacological Classification **Therapeutic classification**	Insulin/ glycemic control	PPI/ acid reduceer	Antidysrhythmic/ mineral and electrolytes	Antipsychotics/ CYP3A4 inhibitor	Sedative/ selective alpha 2 agonist
Mechanism of Action	Insulin aspart works by replacing/adding insulin into the body which helps regulates the metabolism of glucose throughout the body.	Pantoprazole works by inhibiting the final step of gastric acid production thereby reducing the amount of acid within the stomach.	Magnesium sulfate works by competitively blocking intracellular calcium channels, decreasing calcium availability thus inhibiting smooth muscle contractions.	Haloperidol works by blocking the postsynaptic dopamine receptors in the brain.	Dexmedetomidine's mechanism of action is not fully understood, however, it is believed that it inhibits the transmission of pain.
Reason Client Taking	Client was thought to be in DKA and had a blood glucose reading of over 900.	Client is taking to assist in the prevention of stomach ulcers.	Client is taking due to a low magnesium level.	This was pushed stat as the patient was very combative.	The client was prescribed this as a medication restraint as he continued being combative.
Contraindications (2)	Contraindicated in	Contraindicated	Contraindicated	Contraindic	Contraindicated in

	patients that are hypoglycemic and if they are allergic to insulins.	in patients that have a current Clostridium difficile and/or a vitamin B12 deficiency.	in patients that have a disease known as myasthenia gravis and heart blocks/cardiac ischemia.	ated in patients that have breast cancer and low magnesium levels.	patients with hypersensitivity and a low blood pressure/heart rate.
Side Effects/Adverse Reactions (2)	Side effects include weight gain and constipation.	Side effects include GI symptoms such as N/V/D and headaches.	Side effects include heart disturbances and hypotension.	Side effects include vision problems and dry mouth.	Side effects include hypotension and bradycardia.
Nursing Considerations (2)	Rotate the insulin bottle rather than shake the bottle to mix contents. Rotate injection site locations.	Monitoring for GERD and PUD is vital for care.	Patient should be placed on an EKG machine and be monitored throughout treatment.	Monitorizati on of hypersensiti vity reactions such as respiratory and skin, also regular BPs.	Start with a loading dose of 1mcg/kg then down to a maintenance infusion as prescribed. Pay close attention to EKG and BPs while infusing.
Key Nursing Assessment(s)/Lab(s) Prior to Administration	A blood glucose reading should be obtained prior to administration.	Baseline vitals.	Magnesium levels should be drawn prior to infusions.	Magnesium levels and blood pressures should be checked.	EKG, blood pressure, heart sounds, and heart rate should all be monitored.
Client Teaching needs (2)	It is recommended to eat something within 15 minutes and always keep insulin on hand.	Take 30 minutes prior to a meal and do not crush, chew, or break.	Inform you doctor if you smoke and/ or drink alcohol regularly.	Report if your breathing becomes hindered or you have heart abnormalitie s.	Report if you have any nervousness, agitation, and/or headaches. Start

Medications Reference (1) (APA):

Jones & Bartlett Learning. (2021). *2021 Nurse's drug handbook* (19th ed.). Jones & Bartlett Learning

Assessment

Physical Exam (18 points) – HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	The patient was very lethargic as he had just been weaned off his sedative. Anytime he was awoken he would acknowledge my presence and fall back to sleep. The patient did not show any signs of distress. The patient's overall appearance was appropriate.
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** **Braden Score:** **Drains present: Y☐ N X** **Type:**	The patient's skin color was appropriate for ethnicity. The patient's skin was warm and dry. The patient's skin turgor was elastic. The patient had no rashes. The patient had bruises on his lower extremities bilaterally. The patient had no wounds. The patient has a Braden score of 8 making him a high risk for skin break down.
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Patient's head and neck were symmetrical. Patient's trachea was without deviation and midline. Thyroid rises and falls with swallowing. Tympanic membrane pearly grey. Ears are bilateral on the head. No auditory impairment as he did hear me, he would just fall right back to sleep. Patient unable to do a visual acuity assessment due to sedation and inability to stay awake. Pupils are PERLLA. Patient sclera white with no redness or discharge. No deviated septum, no polyps, nasal airway patent, no drainage noted. Mucous membranes moist, pink, and firm. Rise and fall of the soft palate were observed. Teeth are yellowing.
CARDIOVASCULAR: **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):**	Heart rhythm is normal sinus. S1 and S2 heard. Peripheral pulses 3+ radial bilaterally. 3+ bilateral dorsalis pedal pulses noted.

Peripheral Pulses: **Capillary refill:** **Neck Vein Distention: Y ☐ N** X **Edema Y N** X **Location of Edema:**	Capillary refill less than two seconds both upper and lower extremities.
RESPIRATORY: **Accessory muscle use: Y☐ N** X **Breath Sounds: Location, character** **ET Tube:** **Size of tube:** **Placement (cm to lip):** **Respiration rate:** **FiO2:** **Total volume (TV):** **PEEP:** **VAP prevention measures:**	Breath sounds clear in both lungs bilaterally. Patient respiratory pattern is regular. Lung aeration is equal. Patient has a respiration rate of 15 breaths per minute.
GASTROINTESTINAL: **Diet at home:** **Current Diet** **Height:** **Weight:** **Auscultation Bowel sounds:** **Last BM:** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N** X **Nasogastric: Y N** X **Size:** **Feeding tubes/PEG tube Y ☐ N X** **Type:**	Patient can have a regular diet at home. At the hospital he went form NPO over night to medium calorie diet in the morning. Patient height is 183 cm. Patient weighs 98 kg. Bowel sounds active in all four quadrants. Last bowel movement 04/05/2022. No pain or tenderness noted with palpation. No abdominal masses were detected. No distention, no incisions, no scars, no drains, no wounds present on patient's abdomen.
GENITOURINARY: **Color:** **Character:**	Patient's urine is colorless and clear. Patient had a urine output of 140 mL during clinical

Quantity of urine: **Pain with urination: Not applicable** **Dialysis: Y ☐ N** X **Inspection of genitals:** **Catheter: Y** X **N ☐** **Type:** **Size:** **CAUTI prevention measures:**	period. Pain with urination was not answered when asked. No redness or swelling noted in genitals. Patient had a Coude indwelling foley catheter in place. The catheter was size 16. It was removed early into the clinical duration. CAUTI prevention measures include sterile placement, ensuring the catheter is draining appropriately and not backing up into the bladder, placing collection bag lower than the patient's bladder, and providing catheter and genital sanitation.
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y** X **N ☐** **Fall Risk: Y** X **N☐** **Fall Score:** **Activity/Mobility Status:** **Independent (up ad lib)** **Needs assistance with equipment** **Needs support to stand and walk**	Nail beds smooth with a capillary refill of <3 seconds. Extremities warm and their color is usual for ethnicity. Passive range of motion completed. Patient needs assistance with ADLs at least until he fully becomes aware and awake. He is currently a fall risk with a fall risk score of 70.
NEUROLOGICAL: **MAEW: Y** X **N** **PERLA: Y** X **N☐** **Strength Equal: Y** X **N if no - Legs ☐** **Arms ☐ Both X** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	Unable to assess if patient is oriented to person, place, situation, and time because patient is intubated and sedated and there is no family at bedside. Patient pupils are PERLLA. Cognition and mental status are unable to be assessed. Speech unable to be assessed as he only answered with head shakes/nods. LOC is rated at a score of 10. Patient RASS score is –2. The night prior he was at a +4.
PSYCHOSOCIAL/CULTURAL: **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	Patient lives at home with his wife and child. There are no notes on friends or additional family noted within his chart. Coping methods unable to be assessed. Patient has a high school education with some college courses noted in chart. Further developmental assessment unable to be obtained at this time. Religious association unable to be assessed either.

Vital Signs, 2 sets (5 points) – HIGHLIGHT ALL ABNORMAL VITAL SIGNS

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0700	58 bpm	107/63 mmHg	15 br/min	36.1 °C	97%
1100	65 bpm	112/64 mmHg	17 br/min	36.2 °C	97%

Vital Sign Trends/Correlation:

The patient's vital signs were very stable, and all were within or very close to being within normal limits. The lowered pulse may be insignificant and may just be his normal.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0730	Critical care pain observation tool	N/A	0/10	N/A	Comfort care
1100	Critical care pain observation tool	N/A	0/10	N/A	Comfort care

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: **Location of IV:** **Date on IV:** **Patency of IV:** **Signs of erythema, drainage, etc.:** **IV dressing assessment:**	Saline Lock 2-20 gauge Peripheral – right and left antecubital 4/05/22 No phlebitis No infiltration

	No signs of erythema or drainage IV patent Transparent dressing is clear, dry, intact
Other Lines (PICC, Port, central line, etc.)	N/A
Type: **Size:** **Location:** **Date of insertion:** **Patency:** **Signs of erythema, drainage, etc.:** **Dressing assessment:** **Date on dressing:** **CUROS caps in place: Y** X **N** ☐ **CLABSI prevention measures:**	N/A

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
180mL of apple juice	Urine output – 140 mL

Nursing Care

Summary of Care (2 points)

Overview of care: The student nurse did a full head to toe assessment, pain assessment, and IV assessment. They then assisted with changing the client's diet from NPO to a medium calorie-regular diet and assist with ordering the patient food. The prescribed medications were given at the prescribed time. Other than that, all that was done was basic care such making sure that he remained warm and comfortable looking.

Procedures/testing done: The patient had a CT of the head done but there was too much artifact. He is scheduled for another. He is on an EKG and had a chest XR that did not show anything significant.

Complaints/Issues: The patient is coming off sedation, so with the limited ability to communicate he did not voice any concerns.

Vital signs (stable/unstable): Patient is stable during the clinical period.

Tolerating diet, activity, etc.: Patient had a catheter that was removed early into the clinical period. He is super sluggish and is not fully coherent yet.

Physician notifications: Physician changed the diagnosis form DKA to HHS.

Future plans for client: Current plans are to keep patient stable. Insulin drip has been canceled and insulin on a sliding scale has been initiated. Plan to see what the head CT and go from there. Expected transfer to a med/surg floor and then to home.

Discharge Planning (2 points)

Discharge location: Home is the most likely place for this patient to be discharged.

Home health needs (if applicable): No home health needs besides medication.

Equipment needs (if applicable): N/A

Follow up plan: He needs to follow up with his PCP and have a reevaluation of medications as he has claimed to be non-compliant.

Education needs: Further medication education needs to be instilled so that there is a better compliance to his medication regimen. Especially when it comes to his diabetes management as

it is obvious, he does not take good care of the disease.

Nursing Diagnosis (15 points)

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

Nursing Diagnosis • Include full nursing diagnosis with "related to" and "as evidenced by" components • Listed in order by priority – highest priority to lowest priority pertinent to this client	**Rationale** • Explain why the nursing diagnosis was chosen	**Interventions (2 per dx)**	**Outcome Goal (1 per dx)**	**Evaluation** • How did the client/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
Fluid and electrolyte imbalance related to HHS as evidenced by blood glucose reading of over 900, confusion, low sodium levels, and altered potassium levels.	This nursing diagnosis was chosen and prioritized first as this is the most pertinent and problematic manifestation of HHS that could lead to further problems.	1. Fluids were running during the night. 2. Electrolyte replacement such as magnesium sulfate were also run over night.	**The goal with these interventions is to maintain fluids and correct electrolyte levels as the patient fights the acute problem.**	The client and family were supportive of the choices and understood the necessity.
Risk for fluid volume deficit related to HHS as evidenced by blood glucose reading of	This nursing diagnosis was chosen and prioritized second because	1. Strict I&Os to trend how much he intakes vs. how much he outtakes.	**The goal of these interventions is to quickly recognize**	The client's family were supportive of these interventions

over 900 and low sodium levels indicating dehydration.	the basis of the body maintaining homeostasis is correct fluid control.	2. Vitals taken Q4H for early recognition of worsening condition.	**worsening fluid volume deficit and to be able to further intervene early.**	and had no problems with them.
Risk for infection related to elevated glucose levels as evidenced by the last lab draws and lack of diabetes control.	This diagnosis was chosen and prioritized third because there is a high prevalence of infection in patients with HHS.	1. Asepsis technique and PPE strictly used while doing client care. 2. Hand washing before and after client care is also implemented.	**The goal of these interventions is to prevent/reduce the likelihood that the patient develops an infection such as pneumonia.**	The client and family were again very supportive of these interventions and practiced them themselves.
Acute confusion related to HHS as evidenced by the patient being highly agitated and combative when being brought in.	This diagnosis was chosen and prioritized fourth as confusion can be a scary/harmful experience for not only the client but also those attempting to care for him.	1. Restraints were used to end the combativeness. Started with physical and then was sedated so that care could be done. 2. Reorientation was done when he was removed from sedation, and he began to wake.	**The goal of these interventions to reduce confusion and likelihood of the patient harming medical staff and to reorientate to what is happening.**	The client and family seemed to understand the necessity of the chosen interventions.
Risk for ineffective therapeutic regimen management related to diabetes as evidenced by his last medication rec and his lack of diabetic care/medication compliance.	This diagnosis was chosen and prioritized fifth as an ineffective therapeutic regimen will just lead him back to the hospital in the same or possibly worse state than he is in now.	1. Medication education will be done in hopes of him better understanding the consequences if not taken care of. 2. Better practices for diabetic control to reduce the symptoms and risk of further degeneration due to diabetes.	**These interventions were chosen to hopefully increase his knowledge if there are any deficits or to help him better understand the consequences involved.**	Hopefully the patient and family will take it to heart and make the necessary changes to their life to reduce the chances of further hospitalization.

Other References (APA):

Capriotti, T. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed). F.A. Davis Company.

Concept Map (20 Points):

The patient is a 64 y/o male that presented to the emergency room with an altered mental status and very combative having swung at EMS and crew. The patient's wife called 911 around 2100 on the night of April 4, 2022. When EMS arrived on scene wife claimed that she believes that the patient had had a seizure. EMS state the patient was very stuporous until they got going in the ambulance. While en route to the hospital patient became very combative and began striking EMS crew. EMS initiated restraints and arrived at the emergency department. While there the patient continued being combative and screaming "help me". Medication restraints were used to sedate the patient (Precedex) which did alleviate much of the combativeness. Patient does not appear in pain, just highly confused and agitated. Wife has not shown up to give more information at this time. Transferred to the ICU for more long term and intensive care.

1. Fluid and electrolyte imbalance related to HHS as evidenced by blood glucose reading of over 900, confusion, low sodium levels, and altered potassium levels.
The goal with these interventions is to maintain fluids and correct electrolyte levels as the patient fights the acute problem.
2. Risk for fluid volume deficit related to HHS as evidenced by blood glucose reading of over 900 and low sodium levels indicating dehydration.
The goal of these interventions is to quickly recognize worsening fluid volume deficit and to be able to further intervene early.
3. Risk for infection related to elevated glucose levels as evidenced by the last lab draws and lack of diabetes control.
The goal of these interventions is to prevent/reduce the likelihood that the patient develops an infection such as pneumonia.
4. Acute confusion related to HHS as evidenced by the patient being highly agitated and combative when being brought in.
The goal of these interventions to reduce confusion and likelihood of the patient harming medical staff and to reorientate to what is happening.
5. Risk for ineffective therapeutic regimen management related to diabetes as evidenced by his last medication rec and his lack of diabetic care/medication compliance.
These interventions were chosen to hopefully increase his knowledge if there are any deficits or to help him better understand the consequences involved.

Vitals:
BP-107/63 mm Hg
HR-58 (slightly low)
Resp-15 breaths/min
Temp-36.1C
O2-97%
Patient has high glucose, BUN, creatinine ALT, and Lactic acid levels. Patient ha low RBC, Hgb, Hct, Na, Cl, mag, and calcium levels. He also appears to be in metabolic acidosis per a VBG.

64 y/o male with a history of hypertension, chronic-kidney disease, chronic neck pain, diabetic neuropathy, anemia, diabetes mellitus II, erectile dysfunction, heart murmur, hyperlipidemia, and obesity are admitted for mental alteration, agitation, and a possible seizure. Patient also has a history of non-compliance.

1. Fluids were running during the night.
2. Electrolyte replacement such as magnesium sulfate were also run over night.
3. Strict I&Os to trend how much he intakes vs. how much he outtakes.
4. Vitals taken Q4H for early recognition of worsening condition.
5. Asepsis technique and PPE strictly used while doing client care.
6. Hand washing before and after client care is also implemented.
7. Restraints were used to end the combativeness. Started with physical and then was sedated so that care could be done.
8. Reorientation was done when he was removed from sedation, and he began to wake.
9. Medication education will be done in hopes of him better understanding the consequences if not taken care of.
10. Better practices for diabetic control to reduce the symptoms and risk of further degeneration due to diabetes.