N321 Care Plan # 1

Lakeview College of Nursing

Name: Chloe Stalcup

Demographics (3 points)

Date of Admission	Patient Initials	Age	Gender
01/24/2021	A.M.	53	F
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
Caucasian	N/A	Single	Dilantin (Hives)
Code Status	**Height**	**Weight**	
Full Code	N/A	132 lbs.	

Medical History (5 Points)

Past Medical History: Cirrhosis of liver, drug abuse, alcoholism.

Past Surgical History: None recorded. Unable to assess, patient disoriented.

Family History: None recorded. Unable to assess, patient disoriented.

Social History (tobacco/alcohol/drugs): Patient admitted while under the influence of alcohol, amphetamines, barbiturates, benzodiazepines, and cocaine. Unable to assess details of use, patient disoriented.

Assistive Devices: Full lift.

Living Situation: Unable to assess, patient disoriented.

Education Level: Unable to assess, patient disoriented.

Admission Assessment

Chief Complaint (2 points): Altered mental status.

History of present Illness (10 points): Patient is 53-year-old-female that presented to the Iroquois Memorial Hospital ED at 22:12 on 01/24/2021. Patient appeared severely agitated and disoriented upon arrival. Patient was given Haldol after arriving to the ED to calm patient down and help with agitation. Upon admission patient tested positive for amphetamines, barbiturates, benzodiazepines, and cocaine. Patient unable to give information about her condition so the boyfriend did. Patients boyfriend stated that A.M. has been confused since 01/21/2021; also

stated that patient has not been eating or drinking. Boyfriend reports that similar incidents have happened before.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Hypernatremia, leukocytosis, drug intoxication.

Secondary Diagnosis (if applicable):.

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

Pathophysiology of Hypernatremia

Upon admission, patient A.M. received a CBC, chemistry panel, and CT scan. The chemistry panel showed elevated sodium levels, diagnosing the client with hypernatremia. Hypernatremia is related to sodium levels exceeding 145 mEq/L (A.M. has a Na+ level of 152); increased sodium levels are often related to excessive water or dehydration loss, which is the cause for patient A.M.. Other reasons for hypernatremia include diuretics, diarrhea, vomiting, low potassium levels, diabetes insipidus, excessive sodium, and Cushing's syndrome (Capriotti, 2020). Kidney dysfunction plays a role in some cases of hypernatremia, but this is not the case with client A.M. since the BUN levels are elevated, but creatinine levels are at a normal range. As stated prior, hypernatremia is associated with high levels of blood urea nitrogen levels (BUN); patient A.M. has elevated BUN levels of 45. Signs and symptoms of hypernatremia are divided into fluid retention/fluid volume excess (FVE) and fluid loss. The signs and symptoms of hypernatremia with FVE include edema, hypertension, and slight confusion (Capriotti, 2020). Signs and symptoms of hypernatremia without FVE (which relates to patient A.M.) is thirst, irritability, tachycardia, dry mucous membranes, and excessive urination (Capriotti, 2020).

The pathophysiology of hypernatremia is all based on cell dehydration. When sodium levels increase, our cells shrink from the high osmotic load (Capriotti, 2020). Cells become dehydrated from water being pulled from the cells, causing them to shrink. In most cases, hypernatremia is an easily fixed problem by drinking water. Complications occur when patients are unable to replenish themselves with water orally. This problem is common in critically ill patients. In severe hypernatremia, the body's brain cells also begin to shrink and compensate for the water loss with spinal fluid (Capriotti, 2020). Healthcare professionals must be very cautious in treating extremely hypernatremia patients. If hypotonic IV solutions are given too rapidly, patients can develop cerebral edema. The formation of cerebral edema is from a hypotonic solution moving into the hypertonic brain cells (Capriotti, 2020). Common vital sign changes in hypernatremia patients are tachycardia, hypertension (in hypernatremia patients with FVE), and orthostatic hypotension.

Additional tests that can diagnose a patient with hypernatremia include a chemical test that monitors levels of sodium and electrolytes and urine osmolarity tests. Treatment of hypernatremia includes the use of isotonic/hypotonic IV fluids, treatment of vomiting/diarrhea, and withholding diuretic use (Mona, 2015). Patient A.M. is being treated for hypernatremia with the use of D5W IV solution at 100mL/hr. D5W helps treat hypernatremia and allows the patient to receive some extra carbohydrates.

Pathophysiology References (2) (APA):

Capriotti, T. (2020). *Davis Advantage for Pathophysiology: Introductory Concepts and Clinical Perspectives* (2nd ed.). Philadelphia: F.A. Davis.

Mona, M., & Opening, V. (2020, December 16). Hypernatremia Disease with Causes, Sign and Nursing Intervention. Retrieved January 30, 2021, from http://nursingexercise.com/hypernatremia-disease-causes-sign-test/

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	4.20-5.40	4.26		
Hgb	12.0-16.0	13.1		
Hct	37.0-47.0	39.9		
Platelets	150-400	248		
WBC	4.3-11.0	20.7		Increased WBC count is related to patient's hypernatremia due to dehydration. This increased count can also be related to the overall stress of the patient's condition (Pagna, 2018).
Neutrophils	37.0-85.0%	91.3%		Elevated neutrophil count is related to the physical stress of hypernatremia and drug intoxication (Pagna, 2018).
Lymphocytes	20.0-45.0%	4.5%		Decreased lymphocyte count is related to drug intoxication (Pagna, 2018).
Monocytes	0.00-15.0%	3.9%		
Eosinophils	0.0-6.0%	0.0%		
Bands	0.0-2.0%	0.0%		

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-	135-145	152		Increased sodium levels are related to osmotic diuresis (Pagna, 2018).

K+	**3.5-5.5**	**3.6**		
Cl-	**95-110**	**114**		**Increased Chloride levels are due to patient's dehydration (Pagna, 2018).**
CO2	**23-31**	**17**		**Decreased CO2 levels are related to starvation and loss of fluids since patient had not been eating or drinking prior to admission (Pagna, 2018).**
Glucose	**70-110**	**130**		**Increase in glucose is related to the physical stress response of client's condition (Pagna, 2018).**
BUN	**8-25**	**45**		**Increased BUN levels are associated with dehydration of patient upon admission (Pagna, 2018)**
Creatinine	**0.70-1.50**	**0.91**		
Albumin	**3.5-5.0**	**4.7**		
Calcium	**8.4-10.3**	**10.3**		
Mag	**-**	**-**		
Phosphate	**6.0-8.2**	**7.9**		
Bilirubin	**0.2-1.2**	**0.8**		
Alk Phos	**40-150**	**102**		
AST	**16-40**	**76**		**Increased AST is related to patient's liver cirrhosis (Pagna, 2018).**
ALT	**7-52**	**29**		
Amylase	**-**	**-**		
Lipase	**-**	**-**		
Lactic Acid	**-**	**-**		

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 Admission	Today's Value	Reason for Abnormal
INR				
PT				
PTT				
D-Dimer				
BNP				
HDL				
LDL				
Cholesterol				
Triglycerides				
Hgb A1c				
TSH				

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				
pH				
Specific Gravity				
Glucose				
Protein				
Ketones				
WBC				

RBC				
Leukoesterase				

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				
Blood Culture				
Sputum Culture				
Stool Culture				

Lab Correlations Reference (1) (APA):

Pagana, K. D., & Pagana, T. J. (2018). *Mosby's manual of diagnostic and laboratory tests* (7th ed.). Elsevier.

Diagnostic Imaging

All Other Diagnostic Tests (5 points): CT of head.

Diagnostic Test Correlation (5 points):

CT of Head:

Results: no abnormal findings.

Patient presented with severe agitation, disorientation, and confusion. Due to this, a head CT scan was ordered to eliminate any other diagnoses.

Diagnostic Test Reference (1) (APA):

Pagana, K. D., & Pagana, T. J. (2018). *Mosby's manual of diagnostic and laboratory tests* (7th ed.). Elsevier.

Current Medications (10 points, 1 point per completed med)
10 <u>different</u> medications must be completed

Home Medications (5 required)

Brand/Generic	**Gabapentin**	**Escitalopram oxalate**	**Lisinopril**	**Omeprazole**	
Dose	**400mg**	**20 mg**	**40 mg**	**20 mg**	
Frequency	**1 x daily**	**1 x daily**	**1 x daily**	**1 x daily**	
Route	**Oral**	**Oral**	**Oral**	**Oral**	
Classification	**Anticonvulsant**	**Antidepressant**	**Antihypertensive**	**Antiulcer**	
Mechanism of Action	**Inhibits rapid firing of neurons associated with seizures and nerve pain.**	**Serotonin reuptake inhibitor. Increases amount of serotonin available in synapses; elevating mood and reducing anxiety.**	**Lowers blood pressure by converting angiotensin 1 to angiotensin 2; creating vasoconstriction and reducing salt and water reabsorption with the release of aldosterone.**	**Inhibiting H+, K+, -ATPase enzymes, preventing excessive HCl from forming in the stomach.**	
Reason Client Taking	**Patient has nerve pain.**	**Depression**	**Patient has hypertension.**	**Treatment of GERD.**	
Contraindications (2)	**Hydrocodone** **Antacids**	**Sumatriptan** **Alcohol use**	**Angioedema** **ACE inhibitors**	**Rilpirvirine containing products.** **Alprazolam**	
Side Effects/Adverse Reactions (2)	**Intracranial hemorrhage**	**GI bleeding or hemorrhage**	**Acute renal failure**	**Hypoglycemia**	

	Hypoglycemia	**Rhabdomyolysis**	**Arrhythmias**	**C-Diff associated diarrhea.**	
Nursing Considerations (2)	**Monitor kidney function.** **Give drug at least two hours after antacid.**	**Inform patient alcohol use isn't recommended with the use of this drug.** **Warn patient not to abruptly stop the use of escitalopram oxalate.**	**Use with caution in patients with fluid volume deficit.** **Monitor blood pressure often.**	**Instruct patient to take drug before eating breakfast.** **Encourage patient to avoid use with alcohol, aspirin, ibuprofen, and foods that increase gastric secretions.**	

Hospital Medications (5 required)

Brand/ Generic	**Acetaminophen**	**D5W IV**	**Hydralazine**	**Lorazepam**	**Ondansetron**
Dose	**650 mg**	**100 mL/hr.**	**20 mg**	**2 mg**	**4 mg**
Frequency	**Every 8 hrs.**	**Every 8 hrs.**	**Every 8 hrs.**	**Every 2 hrs.**	**Every 6 hrs.**
Route	**Oral**	**Intravenous**	**Intravenous**	**Intravenous**	**Intravenous**
Classification	**Nonopioid analgesic**	**Glucose elevating**	**Antihypertensive**	**Benzodiazepine**	**Antiemetic**

		agent			
Mechanism of Action	**Blocks prostaglandin production; interfering with pain impulses.**	**Promotes glycogen deposits. Readily metabolized.**	**Has a vasodilating effect in smooth muscle; dilates arteries not veins.**	**Inhibits excitatory stimulation; helps control emotional behavior causing an antianxiety effect.**	**Blocks serotonin receptors at the vagal nerve; reducing nausea and vomiting.**
Reason Client Taking	**Pain**	**To provide nutrition.**	**Has hypertension.**	**To treat anxiety.**	**To treat nausea and vomiting.**
Contraindications (2)	**Severe hepatic impairment** **Liver disease**	**Not compatible with blood products.**	**Coronary artery disease** **Mitral valve disease.**	**Glaucoma** **Psychosis**	**Cisplatin** **Alcohol use**
Side Effects/Adverse Reactions (2)	**Stridor** **Atelectasis**	**Cirrhosis** **Cyanosis**	**Fever** **Constipation**	**Coma** **Seizures**	**Hypotension** **Serotonin syndrome**
Nursing Considerations (2)	**Use with caution in patients with hepatic disease.** **Monitor renal function.**	**Monitor patient's liver function.** **Assess patients blood glucose levels.**	**Give medication with food.** **Check blood pressure often.**	**Use with caution in elderly patients.** **Use with caution in patients with substance abuse disorder.**	**Be aware of electrolyte imbalance.** **Monitor patients ECG especially in patients with bradyarrhythmia's CHF, hypokalemia, or hypomagnesemia.**

Medications Reference (1) (APA):

2020 Nurse's Drug Handbook. (2020). Burlington, MA: Jones & Bartlett Learning.

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness: Patient not alert.** **Orientation: Patient disoriented to person, place, time and situation.** **Distress: Patient shows distress when being moved.** **Overall appearance: Patient looks thin, not well groomed.**	
INTEGUMENTARY (2 points): **Skin color: Normal for race.** **Character: Dry** **Temperature: Warm** **Turgor: Intact** **Rashes: No rashes** **Bruises: Bruises on arms and chest.** **Wounds: No wounds** **Braden Score: 11** **Drains present: Y☐ N ☒** **Type:**	
HEENT (1 point): **Head/Neck: Normal cephalic, atraumatic, no lymphadenopathy, thyroid not palpable without lesions.** **Ears: No lesions, drainage, or redness to outer ear. Tympanic membrane pearly-** **Eyes: PERRLA, eyelids without lesions, conjunctiva pink and moist, sclera is white.** **Nose: Septum midline, turbinate's moist and pink, no visible distress with sinus palpation.** **Teeth: Dentition poor. Buccal mucosa pink lesions noted. Uvula midline.**	.
CARDIOVASCULAR (2 points): **Heart sounds: S1S2 noted. No gallops, murmurs, or rubs.** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable): Normal sinus rhythm, sometimes tachycardiac.** **Peripheral Pulses: Pulses +2 bilaterally.** **Capillary refill: less than 3 seconds.** **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☐ N ☒**	.

Location of Edema:	
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character** **Breath sounds clear throughout, breathing equal and unlabored. Chest symmetrical.**	.
GASTROINTESTINAL (2 points): **Diet at home: Unable to asses; patient disoriented.** **Current Diet: Fed through NG tube at left nares.** **Height: Unable to assess.** **Weight: 132** **Auscultation Bowel sounds: Hypoactive bowel sounds.** **Last BM: Before admission.** **Palpation: Pain, Mass etc.: No distress noted with palpation on abdomen.** **Inspection: Abdomen flat, no lesions.** **Distention: No distension.** **Incisions: No incisions.** **Scars: No scars.** **Drains: No drains.** **Wounds: No wounds.** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☒ N ☐** **Size: 16 Left nares.** **Feeding tubes/PEG tube Y ☒ N ☐** **Type: Nasogastric.**	.
GENITOURINARY (2 Points): **Color: Amber** **Character: Clear** **Quantity of urine: 150 mL** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals: No lesions, wounds, scars. 18 foley catheter in place.** **Catheter: Y ☒ N ☐** **Type: French** **Size: 18**	
MUSCULOSKELETAL (2 points): **Neurovascular status: Patient disoriented**	.

to person, time, and place. **ROM: Passive ROM bilaterally.** **Supportive devices: Full lift** **Strength: Patient unconscious, unable to assess.** **ADL Assistance: Y☒ N ☐** **Fall Risk: Y ☒ N☐** **Fall Score: 15** **Activity/Mobility Status: Patient bed bound.** **Independent (up ad lib) ☐** **Needs assistance with equipment ☐x** **Needs support to stand and walk☐x**	
NEUROLOGICAL (2 points): **MAEW: Y ☐ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Unable to assess, patient unconscious. Y ☐ N ☐ if no - Legs ☐ Arms ☐ Both ☐** **Orientation: Not oriented.** **Mental Status: Unable to assess. Patient unconscious.** **Speech: Unable to assess.** **Sensory: Patient responds to painful stimuli.** **LOC: Unconscious.**	.
PSYCHOSOCIAL/CULTURAL (2 points): UNABLE TO ASSESS; PATIENT UNCONCIOUS. **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	.

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
1330	73	127/64	19	98.8 (oral)	98 (room air)
1600	88	178/107	20	98.8 (oral)	99 (room air)

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
1330	Patient unable to report pain.	Unable to assess.	Patient unable to report pain.	Unable to assess.	N/A
1600	Patient unable to report pain.	Unable to assess.	Patient unable to report pain.	Unable to assess.	N/A

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: 20 G **Location of IV: Left antecubital.** **Date on IV: 01/24/2021** **Patency of IV: Patent.** **Signs of erythema, drainage, etc.: No erythema, drainage, swelling, or tenderness.** **IV dressing assessment: Clean, dry, and intact.**	Dextrose 5% -0.45% NaCl IV 100mL/hr.

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
600mL Dextrose 5% -0.45% NaCl	**Urine- 300 mL**

Nursing Care

Summary of Care (2 points)

Overview of care: Patient was admitted on 01/24/2021 due to altered mental status (agitation and confusion). Patient was given Haldol in ED to calm agitation, along with ondansetron to prevent nausea and vomiting. Labs report a presence of amphetamines, barbiturates, benzodiazepines, and cocaine. The primary diagnosis of patient is hypernatremia, leukocytosis, and drug intoxication. Patient has not been alert and oriented, therefore cannot give

a history of present illness. Since being admitted, patient has been unconscious and only reacts to painful stimuli.

Procedures/testing done: Patient had a head CT scan, CBC, comprehensive chem profile, ammonia lab, and drug panel.

Complaints/Issues: No issues or complaints.

Vital signs (stable/unstable): BP high, other vitals stable.

Tolerating diet, activity, etc.: Patient is unable to feed, dress, or assist with any ADL's due to incapacitation. Patient has NG tube placed in left nares and is awaiting orders for nutritional supplement.

Physician notifications: Notify primary care provider of new diagnosis.

Future plans for patient: Patient has no plans of discharge.

Discharge Planning (2 points)

Discharge location: Not yet identified.

Home health needs (if applicable): Not yet identified.

Equipment needs (if applicable): Not yet identified.

Follow up plan: Not yet identified.

Education needs: Patient is disoriented and cannot be educated.

Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis and listed in order of priority

Nursing Diagnosis	Rational	Intervention (2 per dx)	Evaluation
• Include full nursing diagnosis with "related to" and "as evidenced by"	• Explain why the nursing diagnosis was chosen		• How did the patient/ family respond to the nurse's actions? • Client response,

components			status of goals and outcomes, modifications to plan.
1. Risk for electrolyte imbalance related to hypernatremia as evidenced by a sodium level of 152 mEq/L	-Chemical test showed patient A.M. has a sodium level of 152 mEq/L.	1. Supply D5W IV fluid as ordered and directed. 2. Reduce sodium intake by decreasing table salt and other dietary sodium.	-Patients levels of sodium decreased with the administration of D5W, and the reduction in dietary salt. -Client responded well to treatment.
2. Fluid volume deficit related to dehydration as evidence by increased sodium levels.	-Patients boyfriend reported patient had not been eating or drinking for multiple days prior to admission. -Sodium levels elevated.	1. Supply patient with D5W IV fluid as ordered and directed. 2. Educate patient on importance of drinking water and staying hydrated.	- Patients signs and symptoms of dehydration have subsided. - Patient was not responsive to education.
3. Ineffective health maintenance related to substance abuse as evidence by positive drug screen for amphetamines, benzodiazepines, barbiturates, and cocaine.	- Past medical history of substance abuse. - Positive drug test for multiple illegal substances.	1. The nurse will supply the client with a list of local substance abuse programs and NA meetings. 2. The nurse will educate the client of the side effects of drug abuse and benefits of cessation.	- Patient was not responsive to education about drug cessation. - Patient was not engaging in conversation and information given about substance abuse programs.

Other References (APA):

Vera, M. (2020, January 11). Nursing Diagnosis for Substance Abuse: 8 Care Plans. Retrieved January 30, 2021, from https://nurseslabs.com/substance-abuse-nursing-diagnosis-care-plan/

Concept Map (20 Points):

Subjective Data

-Patient responds to painful stimuli.
-Unable to assess subjective data; patient unable to respond.

Nursing Diagnosis/Outcomes

Risk for electrolyte imbalance related to hypernatremia as evidenced by a sodium level of 152 mEq/L
Patient will decrease sodium levels to 145 mEq/L before discharge by decreasing sodium intake and through D5W IV solution.
Fluid volume deficit related to dehydration as evidence by increased sodium levels.
Patient will drink 60 fl. ounces in water and have a decreased BUN level before discharge.
Ineffective health maintenance related to substance abuse as evidence by positive drug screen for amphetamines, benzodiazepines, barbiturates, and cocaine.
Patient will decrease levels of drugs in system and have a plan of action for substance abuse disorder before discharge.

Objective Data

Increased sodium level of 152; hypernatremia.
Increased BUN of 45 due to dehydration.
Patient has normal sinus rhythm, sometimes tachy.
Patient presented to ED positive for amphetamines, benzodiazepines, barbiturates, and cocaine.
Primary diagnosis of leukocytosis, hypernatremia, and substance abuse.

Patient Information

A.M., 53-year-old female
Patient has a PMH of alcoholism, substance abuse, liver cirrhosis.

Nursing Interventions

Advanced patients NG tub 10 cm.
Urine output of 150 mL
Supplied patient with D5W IV fluid.
Assessed patient's IV site.
Provided oral care to patient.
Turned patient every two hours.
Assessed patients' vitals.
Placed patient on telemonitor.