N311 Care Plan 4

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Lakeview College of Nursing

N311: Foundations of Professional Practice

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Demographics

Date of Admission 9/29/2025	**Client Initials** KR	**Age** 84	**Biological Gender** Female
Race/Ethnicity White/Caucasian	**Occupation** Retired	**Marital Status** Widowed	**Allergies** (per patient) – several antibiotics per medical chart – cephalexin, levofloxacin, iodine, oxycodone
Code Status Full	**Height** 62 in	**Weight** 194 lb	

Medical History

Past Medical History: Cellulitis, essential hypertension (HTN), influenza B, lung cancer, rheumatoid arthritis (RA), history of (h/o) blood clots, mediastinal mass, hyperlipidemia.

Past Surgical History: appendectomy, cholecystectomy, lung biopsy, thoracotomy, skin cancer excision (malignant melanoma removed from upper back), total hip replacement (right)

Family History: The patient could not think of any specific medical history for her parents, but noted that her mother took medication “for her bones” which might indicate osteoporosis. She has one daughter with HTN and another daughter with obstructive sleep apnea (OSA).

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use): Alcohol – approximately 2.4 oz of spirits weekly, equivalent to ~1.5 standard alcoholic drinks. Drugs – never. Tobacco – former smoker, estimated 40 pack/year history.

Education: Attended high school but did not complete, then later attended junior college where she received a certificate in accounting.

Living Situation: Lives at home by herself or at one of her daughter’s house. At the time of her hospitalization she had been living with her daughter. Her and her daughter’s houses are both handicap accessible.

Assistive devices: She uses a standard walker 99% of the time, but has recently started using a wheelchair due to shortness of breath (SOB). In the hospital she was a 2-person assist and had her walker at her bedside.

Admission Assessment

Chief Complaint: Shortness of breath (SOB)

History of Present Illness (HPI) – OLD CARTS: The patient (pt) presented to the emergency department (ED) of her own volition on 9/29/2025 after experiencing difficulty breathing. She stated that she had been experiencing the dyspnea on exertion (DOE) for 3-4 days prior to her ED visit, and that the difficulty has been constant. She noted tightness in her chest and stated that it was especially bad upon exertion. She noted that resting helped alleviate the condition. Due to her SOB and DOE she has been sleeping in a recliner or an elevated hospital bed, but cannot tolerate sleeping in a flat position. She did not try any at-home remedies and instead opted to come to the ED. She states that her breathing was so severe that she felt unable to breathe at all on the day she presented to the ED. She also complained of nausea which she attributed to taking Bactrim for her cellulitis. She also notes that she has been taking a diuretic (furosemide) and had been drinking a lot of water that day.

Primary Diagnosis

Primary Diagnosis on Admission: Hypervolemic hyponatremia

Secondary Diagnosis (if applicable): Congestive heart failure (CHF)

Pathophysiology

Pathophysiology of the Disease, APA format:

Hyponatremia is a condition where the concentration of sodium, or “natrium”, in the blood is below the normal limits for proper physiologic function. Clinically, the picture of the body’s sodium level is usually centered around water (Capriotti, 20204). This is because sodium is one of the body’s most important electrolytes, and the disruption of sodium balance in the body can lead to catastrophic consequences. The balance of extracellular sodium and intracellular potassium is crucial for maintaining the Na+/K+ pump, which is part of the pathway of cellular respiration. Cellular respiration is the pathway by which the body converts its main sources of energy into ATP, the body’s main source of chemical energy, to be used for all of the metabolic and biologic functions necessary to sustain life. Note that some of the most necessary functions that require ATP include protein synthesis, DNA replication, muscle contraction, and neurotransmission (Capriotti, 2024).

It is important to note that sodium also plays a direct role in neurotransmission, specifically in depolarizing the neural cell membrane. This is described as an action potential, which is a rapid change in voltage across a cell’s membrane. “The membrane voltage, or potential, is determined at any time by the relative ratio of ions, extracellular to intracellular, and the permeability of each ion. (Grider, M.H., 2023). Sodium and potassium are two of the most important extracellular and intracellular ions involved in cellular physiology, and with the exception of calcium they may be the most important ions for bodily function.

Sodium is one of the major electrolytes lost through the sweat and urine. In the case of this patient who is on diuretic medication to control her blood pressure (furosemide), she is at risk for hyponatremia from excess excretion. As she has been diagnosed with CHF, it will be important to monitor her fluid level and electrolyte balance between her fluid intake, output, and

medication effect. It is also important to note that she already has edema in her lower extremities, which is coincident with her new diagnosis of CHF.

Pathophysiology References (2) (APA):

Capriotti, T. (2024). *Davis Advantage for Pathophysiology: Introductory Concepts and Clinical Perspectives* (3rd ed.). F.A. Davis Company.

Grider, M. H. (2023, May 8). *Physiology, action potential*. StatPearls [Internet]. https://www.ncbi.nlm.nih.gov/books/NBK538143/

Laboratory/Diagnostic Data

Lab Name	Admission Value	Today's Value	Normal Range	Reasons for Abnormal
Comprehensive metabolic panel (CMP)				
Sodium	120	131	135-145 mEq/L	Excessive fluid intake, use of diuretics
Chloride	89	97	96-106 mEq/L	Use of diuretics, fluid loss due to diuretics
Complete Blood Count (CBC) w/ differential				
RBC	3.23	N/A	3.8-5.3 million/µL	Chronic inflammation due to RA, hemodilution due

				to CHF
Hgb	9.4	8.9	12.0-15.8 g/dL	Chronic inflammation due to RA, Hx of cancer
Hct	27.6	27.7	36.0-47.0%	Chronic inflammation due to RA
Neutrophils	90.2	78.9	47.0-73.0%	Bacterial infection (cellulitis)
Lymphocytes	2.6	8.5	18.0-42.0%	Bacterial infection (cellulitis)

Diagnostic Test& Purpose	**Clients Signs and Symptoms**	**Results**
Echocardiogram – transthoracic	SOB, edema of lower extremities	Images suggest acute on chronic heart failure with preserved ejection fraction
12-lead EKG	SOB	Normal sinus rhythm, normal EKG
Chest XR – 2 views	SOB	Suboptimal inspiration, opacity noted at right lateral

		lung base
Chest CT w/o contrast	SOB	Subsolid nodule in RLL lobe

Diagnostic Test Reference (1) (APA):

Pagana, K. D., & Pagana, T. J. (2017). *Mosby's manual of diagnostic and laboratory tests* (6th ed.). Mosby.

Current Medications

Brand/ Generic	Tylenol/ acetaminophen	ProAir HFA/albuterol	Xanax/ alprazolam	Lasix/ furosemide	Lipitor / atorvastatin
Dosage, Route, Frequency given	650 mg, oral, PRN every 4 hours	2.5 mg/3 mL, nebulization, PRN every 4 hours	0.25 mg, oral, PRN 3 times daily	40 mg, oral, once daily	40 mg, oral, once at night
Reason Client Taking	Mild to moderate pain	Wheezing, SOB	Anxiety	Edema of lower extremities	Hyperlipidemia

Assessment

Physical Exam – HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS

General, Psychosocial/Cultural, and TWO focused assessment specific to the client is required.

The student and instructor may complete these assessments together.

GENERAL: **Alertness:** **Orientation:**	Pt was alert and oriented x4, well groomed with no apparent signs of distress. She was sitting upright in bed, was receptive to conversation and

Distress: **Overall appearance:**	able to respond appropriately.
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y✓ N ☐** **Type:**	The pt's skin was a pale yellow color with noted exceptions below. It was dry, cracked in some areas, and scaling was noted on the lower extremities including the feet. It was warm to the touch. Upon skin turgor assessment, slight tenting was noted. There were no signs of a rash. Multiple ecchymoses noted on both legs. The skin on both lower extremities was raw and red due to an active cellulitis infection. Her Braden score was a 17. She had a peripheral placed in the anterior proximal left forearm, and a female external urinary catheter.
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	The head and neck are symmetrical, the trachea is midline with no deviation or deformity. The lymph nodes are not palpable and nontender. Bilateral carotid pulses are palpable +2. Bilateral sclera white, bilateral corneas clear, bilateral conjunctiva pink. No visible drainage from either eye. Bilateral eyelids moist and pink without lesions or discharge. PERRLA and EOMs intact bilateraly. Bilateral auricles have no visible or palpable deformities, lumps, or lesions. Canals are clean and clear with no drainage or wounds. Patient is able to hear clearly. Bilateral nares patent with no bleeding or drainage. Septum midline and straight with no deformity or deviance. Bilateral frontal and maxillary sinuses are nontender upon palpation. Posterior pharynx pink and moist upon inspection, with no exudate, lesions, or nodules. Uvula and tongue midline. Hard palate present and intact. Soft palate rises symmetrically upon swallowing. Dentition shows no signs of cavities, but there are two teeth missing on the lower left side. Oral mucosa is pink and moist without lesions. The pt does not

	use dentures. .
CARDIOVASCULAR: **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:** **Neck Vein Distention: Y ☐ N ☐ Edema Y ☐ N ☐** **Location of Edema:**	.
RESPIRATORY: **Accessory muscle use: Y☐ N ☐** **Breath Sounds: Location, character**	.
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 ☐** **Nasogastric: Y ☐ N ☐** **Size:** **Feeding tubes/PEG tube Y ☐ N ☐** **Type:**	
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☐** **Dialysis: Y ☐ N ☐** **Inspection of genitals:** **Catheter: Y ☐ N ☐** **Type:** **Size:**	
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N ☐** **Fall Risk: Y ☐ N☐** **Fall Score:** **Activity/Mobility Status:** **Independent (up ad lib) ☐** **Needs assistance with equipment ☐** **Needs support to stand and walk ☐**	.

NEUROLOGICAL: **MAEW: Y ☐ N☐** **PERLA: Y ☐ N☐** **Strength Equal: Y ☐ N ☐ if no - Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	.
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):**	.The pt appeared to be in good spirits and very accepting of her current state of health. Her developmental level is that of a competent and fully developed adult. She is a devout and practicing Catholic, and uses her faith as a source of strength and inspiration. She prays with a priest daily before dinner if possible. She also relies on her two daughters for support at home and transportation. As noted above, she sometimes lives with one of her daughters as her house is handicap accessible.

Vital Signs, 1 set – HIGHLIGHT ALL ABNORMAL VITAL SIGNS

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
1323	75	119/37	16	96.7	97%

Pain Assessment, 1 set

Time	Scale	Location	Severity	Characteristics	Interventions
1330	0-10	Knees bilaterally	8	Sharp and pulsating, with sudden onset	Tylenol and Norco PRN daily, usually

					both are necessary if she is going to be active that day.

Intake and Output

Intake (in mL)	**Output (in mL)**
240 - water	2400 - urine

Nursing Diagnosis
Must be NANDA approved nursing diagnosis

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.
1. Electrolyte imbalance related to use of diuretic medication and overhydration as evidenced by lab results	The patient presented with symptoms consistent with CHF, specifically SOB, edema in the lower extremities, and dyspnea. She noted	**1.** Fluid restriction **2.** Encourage intake of electrolytic beverages if tolerated and permissible per the provider's orders	**1.** The pt will balance their electrolytes and their fluid compartment volumes, while adjusting to an appropriate bodily fluid volume.	The pt was already on fluid restriction when I spoke with her, and understood the necessity for it. She also understood that keeping the ions in her blood was essential for proper bodily

(hypervolemic hyponatremia)	that she had been taking furosemide and consuming a large quantity of water.			function.
2. Impaired gas exchange due to fluid buildup in the lungs as evidenced by DOE	In addition to the pt's SOB, she noted DOE which is consistent with impaired gas exchange. In pt's with CHF, fluid buildup around the lungs can impair gas exchange and exacerbate their SOB.	**1.** Encourage proper body positioning to open airway and maximize ventilation **2.** Educate the pt about breathing, gas exchange, and possible emergency situations	**1.** The pt will understand the cause of her SOB, be able to implement some basic remedial steps on her own, and recognize when to call for help should an emergency arise.	The pt was receptive to learning, although she stated that her daughter was already knowledgeable of basic CPR maneuvers. She states that when she returns home she is not worried because her daughter is a trained responder.

Other References (APA):