N311 Care Plan #3

Lakeview College of Nursing

Kelsey Reed

Demographics (5 points)

Date of Admission 8/1/2020	**Patient Initials** J.J.	**Age** 78 years old	**Gender** Female
Race/Ethnicity Caucasian	**Occupation** Retired elementary teacher	**Marital Status** Widowed	**Allergies** NKA
Code Status DNR	**Height** 5’7”	**Weight** 156lb	

Medical History (5 Points)

Past Medical History: congestive heart failure, diabetes

Past Surgical History: no surgical history

Family History: Father died of pancreatic cancer in his 50’s, mother had breast cancer, multiple sclerosis, no history for grandparents

Social History (tobacco/alcohol/drugs): No history of drug use. Pt drinks light beer twice a week and has smoked 1ppd for the past 60 years.

Admission Assessment

Chief Complaint (2 points): Urosepsis

History of present Illness (10 points): Pt came to ER on 8/1 due to concerns about UTI. She was agitated and slightly confused upon being admitted. She has been noticing dark, cloudy urine for the past several days. No pain or discomfort with urination reported. A urinalysis indicated the presence of a urinary tract infection (UTI). She was admitted for urosepsis and has been started on IV antibiotics. A neighbor brought over pt’s drugs including Furosemide and Digoxin indicating a cardiac issue.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Congestive Heart Failure

Secondary Diagnosis (if applicable): Diabetes

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

Heart failure occurs when the heart weakens and is unable to pump sufficient blood (Capriotti & Frizzell, 2016). It is most commonly seen when the left ventricle weakens and is unable to pump sufficient blood to meet the oxygen requirements of the body (Capriotti & Frizzell, 2016). It is considered to be congestive heart failure when there is fluid retention associated with the heart failure (Capriotti & Frizzell, 2016). The left ventricle is responsible for pumping oxygen rich blood to body tissues. When it begins to fail, the body does not receive proper oxygenation and fluid can back up into the pulmonary circulation affecting gas perfusion in the lungs (Capriotti & Frizzell, 2016).

In order for a diagnosis of congestive heart failure to be made, one major and two minor criteria from the Framingham Criteria for Diagnosis of Congestive Heart Failure must be met (Capriotti & Frizzell, 2016). This patient has the major criteria of pulmonary crackles, jugular vein distention, and cardiomegaly. Minor criteria for this patient include bilateral extremity edema and dyspnea on exertion. Congestive heart failure can cause not only pulmonary edema, but also peripheral edema (Wright & Thomas, 2018). Peripheral edema occurs as the right side of the heart fails and is unable to adequately return blood back from the body (Capriotti & Frizzell, 2016).

Wright and Thomas (2018) discuss how reduced cardiac output leads to reduced kidney perfusion causing the kidney to release renin which activates the RAAS (renin-angiotensin-aldosterone system). Angiotensin causes vasoconstriction raising the blood pressure and aldosterone causes water and salt to be retained at the kidney increasing the amount of fluid in the body (Capriotti & Frizzell, 2016). The RAAS is ultimately supposed to lead to increased blood pressure, but in patients with congestive heart failure, the retained fluid often causes edema due to inadequate circulation (Wright & Thomas, 2018). Treatments to reduce fluid load include reducing fluid intake and using diuretics (Wright & Thomas, 2018).

There are several risk factors for developing congestive heart failure. This patient had an increased risk due to her smoking history, hypertension, and diabetes (Dunlay et al., 2009; Rosano et al., 2017). Diabetes is a major risk factor for developing congestive heart failure because of “the abnormal cardiac handling of glucose and free fatty acids (FFAs), and because of the effect of the metabolic derangements of diabetes on the cardiovascular system” (Rosano et al., 2017). Furthermore, anti-diabetic medications (such as the Glyburide this pt takes) increase the risk of mortality and hospitalization for heart failure (Rosano et al, 2017).

Congestive heart failure can have an effect on many other body systems. One study by Hsiao et al. (2015) identified congestive heart failure as a major risk factor for developing urosepsis following a urinary tract infection, which this patient did develop. This study also observed that

patients older than 65 (such as this pt) are even more at risk of developing septic shock following a urinary tract infection.

Pathophysiology References (2) (APA):

Capriotti, T., & Frizzell, J.P. (2016). *Pathophysiology: Introductory concepts and*

clinical perspectives. F.A. Davis Company.

Dunlay, S.M., Weston, S.A., Jacobsen, S.J., & Roger, V.L. (2009). Risk factors for heart failure:

A population-based case-control study. *The American Journal of Medicine,* 122(11),

1023-1028. https://doi.org/10.1016/j.amjmed.2009.04.022

Hsiao, C.Y., Yang, H.Y., Chang, C.H., Lin, H.L., Wu, C.Y., Hsiao, M.C., Hung, P.H., Liu, W.H.,

Weng, C.H., Lee, C.C., Yen, T.H., & Chen, Y.C. (2015). Risk factors for development of

septic shock in patients with urinary tract infection. *Biomed Research International.*

https://doi.org/10.1155/2015/717094

Rosano, G.M.C., Vitale, C., & Seferovic, P. (2017). Heart failure in patients with diabetes

mellitus. *Cardiac Failure Review*, 3(1), 52-55. https://doi.org/10.15420/cfr.2016:20:2

Wright P., & Thomas, M. (2018). Pathophysiology and management of heart failure. *Clinical Pharmacist*, 10(12).

Laboratory Data (20 points)
If laboratory data is unavailable, values will be assigned by the clinical instructor

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	**3.90-4.98 mill/cumm**	4.8 mill/cumm		
Hgb	**12.0-15.5 gm/dL**	11.3 gm/dL		Low Hgb is due to UTI
Hct	**35-45%**	33%		Low Hct is due to UTI
Platelets	**140-400 1000/mm3**	220 1000/mm3		
WBC	**4.0-9.0 10 x 3/uL**	13 10 x 3/uL		WBC is high due to UTI
Neutrophils	**40-70%**	No lab results		
Lymphocytes	**10-20%**	No lab results		
Monocytes	**2-8%**	No lab results		
Eosinophils	**2-4%**	No lab results		
Bands		No lab results		

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 mEq/L**	135 mEq/L		
K+	**3.5-5.1 mEq/L**	4.4 mEq/L		
Cl-	**98-107 mEq/L**	100 mEq/L		
CO2	**22-29 mEq/L**	No lab results		
Glucose	**70-99 mg/dL**	92 mg/dL		
BUN	**6-20 mg/dL**	21 mg/dL		High BUN due to UTI
Creatinine	**0.5-1.0 mg/dL**	1.0 mg/dL		
Albumin	**3.5-5.2 mg/dL**	3.2 mg/dL		Low albumin due to UTI
Calcium	**8.4-10.5 gm/dL**	9 mg/dL		
Mag	**1.5-2.5 mEq/L**	No lab results		
Phosphate	**2.5-4.5 mg/dL**	3.7 mg/dL		
Bilirubin	**0.0-1.2 gm/dL**	No lab results		
Alk Phos	**35-105 U/L**	No lab results		

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

Lab Test	Normal Range	Admission Value	Today's Value	Reason for Abnormal
Color & Clarity	**Yellow and clear**	Slightly amber and cloudy		Abnormal clarity due to UTI
pH	**6.5-7.5**	5.6		pH is low due to UTI
Specific Gravity	**1.001-1.03**	1.039		High specific gravity due to UTI
Glucose	**negative**	negative		
Protein	**negative**	2 mg/dL		Protein present due to UTI
Ketones	**negative**	negative		
WBC	**negative**	10		WBC present due to UTI
RBC	**negative**	4-6		RBC present due to UTI
Leukoesterase	**negative**	positive		Leukoesterase positive due to UTI

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

Test	Normal Range	Admission Value	Today's Value	Explanation of Findings
Urine Culture	**Negative**	No culture results		
Blood Culture	**Negative**	No culture results		
Sputum Culture	**Negative**	No culture results		

Stool Culture	**Negative**	No culture results		

Lab Correlations Reference (APA):

Capriotti, T., & Frizzell, J.P. (2016). *Pathophysiology: Introductory concepts and clinical perspectives.* F.A. Davis Company.

Current Medications (10 points, 2 points per completed med)
5 <u>different</u> medications must be completed

Brand/ Generic	DiaBeta/ Glyburide	Levaquin/ Levofloxacin	Tylenol/ Acetaminophen	Altivan/ Lorazepam	Lanoxin/ Digoxin
Dose	2.5 mg	250 mg	325 mg	2 mg	0.25mg
Frequency	Daily	BID	Every 4 hours PRN	Every 6 hours PRN	daily
Route	Oral	IV	Oral	Oral	Oral
Classification	Antidiabetic	Antibiotic	Antipyretic, nonopioid analgesic	Anxiolytic	Antiarrhythmic, cardiotonic
Mechanism of Action	Stimulates release of insulin from pancreas and increases tissue sensitivity to insulin	Interferes with bacterial cell replication	Blocks prostaglandin production interfering with pain impulse generation and act on temperature-regulating center in hypothala	Potentiate effects of GABA, which inhibits excitatory stimulation helping to control emotions	Increases force and velocity of heart contractions, decreases conduction rate to produce antiarrhy

			mus		thmic effects
Reason Client Taking	Manage diabetes	Treat bacterial infection	For fever greater than 100F	For agitation and restlessness	Treat heart failure
Contraindications (2)	hypersensitivity to glyburide, sulfonylureas, or their components	Hypersensitivity to levofloxacin, other fluoroquinolones, or their components	Hypersensitivity to acetaminophen or its components	psychosis, hypersensitivity to lorazepam, its components, or benzodiazepines	Ventricular fibrillation, hypersensitivity to digoxin or its components
Side Effects/Adverse Reactions (2)	Arrhythmias, dyspnea, angioedema	Agitation, arrhythmias, angioedema	Agitation, pulmonary edema, angioedema,	Apnea, respiratory depression, anxiety	Arrhythmias, electrolyte imbalances,confusion

Medications Reference (APA):

Jones & Bartlett Learning. (2020). *2020 Nurse's Drug Handbook* (19th ed.).

Jones &

Bartlett Learning.

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

Chest x-ray - indicates enlarged heart and COPD

Left hip and femur x-ray - indicates basi-cervical femoral neck fracture

Left elbow x-ray - no fracture indicated

Assessment

Physical Exam (18 points)

GENERAL: **Alertness:** Alert, but agitated **Orientation:** Oriented to person, place, and time **Distress:** Respiratory distress apparent **Overall appearance:** Distressed, agitated, disheveled	
INTEGUMENTARY: **Skin color:** White, normal for race **Character:** Dry, thin **Temperature:** Warm **Turgor:** Delayed recoil **Rashes:** none noted **Bruises:** none noted **Wounds:** none noted **Braden Score:** 12 **Drains present: Y☐ N ☒** **Type:**	
HEENT: **Head/Neck:** Head and neck symmetrical **Ears:** Auricle is pink, moist, no lesions notes **Eyes:** Sclera was white, cornea was clear, conjunctiva was pink, with no discharge noted. EOMs intact. **Nose:** Septum is midline with no drainage or bleeding noted. **Teeth:** Top and bottom dentures	.
CARDIOVASCULAR: **Heart sounds:** S1 and S2 sounds present with S4 gallop **Cardiac rhythm (if applicable):** **Peripheral Pulses:** 1+ symmetric	.

Capillary refill: 3-5 seconds **Neck Vein Distention: Y ☒ N ☐ Edema: Y ☒ N ☐** **Location of Edema:** pitting edema in both ankles	
RESPIRATORY: **Accessory muscle use: Y☒ N ☐** **Breath Sounds:** Raspy, even breathing. Some crackles in lungs	.
GASTROINTESTINAL: **Diet at home:** Mediterranean diet **Current Diet:** No restrictions **Height:** 5'7" **Weight:** 156 lbs **Auscultation Bowel sounds:** present in all four quadrants **Last BM:** Yesterday afternoon **Palpation: Pain, Mass etc.:** No pain or masses noted **Inspection:** No lesions or rashes noted **Distention:** No distention noted. **Incisions:** No incisions noted **Scars:** No scars noted. **Drains:** No drains noted. **Wounds:** No wounds noted. **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	.

GENITOURINARY: **Color:** Light amber **Character:** Cloudy **Quantity of urine:** Minimal output **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☒ N ☐** **Type:** Foley **Size:** information not provided	
MUSCULOSKELETAL: **Neurovascular status:** No obvious deficits **ROM:** No obvious deficits **Supportive devices:** None needed **ADL Assistance: Y ☐ N ☒** **Fall Risk: Y ☒ N☐** **Fall Score:** 75 - high risk **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:** Oriented to person, place, and time. **Mental Status:** Agitated, slightly confused **Speech:** Good **Sensory:** Good **LOC:** Alert	.
PSYCHOSOCIAL/CULTURAL: **Coping method(s):** Church and prayer **Developmental level:** No deficits	.

noted **Religion & what it means to pt.:** Pt is Methodist **Personal/Family Data (Think about home environment, family structure, and available family support):** Patient is widowed with no children. Her neighbor visits with her regularly	

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0700	88 brachial	128/84 Left arm	22	99.0F Oral	91% receiving 2L O_2 via nasal cannula

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
2000	0-10	n/a	4	n/a	Provide acetaminophen as prescribed

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
2300 IV 60 IVPB 100 oral liquid 2460 total	100 total via catheter

Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis

Nursing Diagnosis ● Include full nursing diagnosis with "related to" and "as evidenced by" components	**Rational** ● Explain why the nursing diagnosis was chosen	**Intervention (2 per dx)**	**Evaluation** ● How did the patient/family respond to the nurse's actions? ● Client response, status of goals and outcomes, modifications to plan.
1. Pressure ulcer	Related to impaired skin integrity as evidenced by stage 2 pressure ulcer on coccyx and immobility	1. Apply barrier cream and transparent skin barrier to prevent further exposure 2. Monitor patient every two hours and treat as needed	1. Goal met: barrier was applied 2. Goal met - ulcer site was monitored every two hours and treatment was provided as needed
2. Impaired gas exchange	Related to congestive heart failure as evidenced by crackles in the lungs, oxygen saturation below 90%, and dyspnea.	1. Raise head of bed to position patient in high-Fowlers 2. Provide oxygen via nasal cannula at 2L increasing by 2L as needed	1. Goal met: Pt said it was easier to breathe after raising head of the bed 2. Goal met: Pt said she felt better and oxygen saturation increased above 90% as oxygen was increased.

Other References (APA):

Herdman, T.H. & Kamistsuru, S. (Eds.). (2014). Nursing diagnoses definitions and

classification 2015-2017. NANDA International, Inc.

Concept Map (20 Points):