N431 Care Plan 1

Lakeview College of Nursing

Keiko Ripely

Demographics (5 points)

Date of Admission	**Patient Initial**	**Age**	**Gender**
9/28/2019	C.J.	75	Male
Race / Ethnicity	**Occupation**	**Marital Status**	**Allergies**
Caucasian	Retired	Married	Bata Blocker Gentamycin Risperidone Lamotrigine
Code Status	**Height**	**Wight**	
Full Code	177.8 cm	112.6 kg	

Medical History (5 points)

Past Medical History:

- Type II Diabetes Mellites
- Hyperlipidemia
- Hypertension
- Tourette's

Past Surgical History:

- N/A

Family History: Father side with hx of heart disease, mother side has diabetes.

Social History (Tobacco / Alcohol / Drugs, Patient Social Factors):

Patient is retired since 2008, living in a senior home with his wife in Albioni, Indiana. Patient states he currently does not drink, and smoke nor uses any illicit drugs. However, he smoked a pack a day for more than 40 years, and quit a month ago. He states used to drink occasionally before. Patient has a family history of heart disease in father's side, diabetes in mother's side. Patient had college level education, and worked in an insurance company for more than ten years before 2008.

Admission Assessment

Chief Complaint (2 points):

- Pt arrived ER via EMS with increasing in Shortness of breath

History of Present Illness (10 Points):

Patient present in ER via EMS in Sep, 28th complain of increasing in shortness of breath. VS: Temp 36.7C, BP 121/75, HR 100, RR 22, O2 Sats 88%, with wheezing auscultated in lungs. He states he having SOB for more than a week. He was hospitalized 10 days ago with SOB and non-productive cough near home in Fort Wayne, IN. Pt states he was discharged without any antibiotics and did well for several days. When he was visiting his family in Charleston this weekend, he again start experiencing in SOB and non-productive cough with yellowish secretion. He denies chest or abdominal pain, N/V, diarrhea or dysuria. No fever or chill, nor palpitation. Pt reports he was sleeping in licliner for last several months due to orthopnea when he lying down.

Primary Diagnosis

Primary Diagnosis on Admission (2 points):

- Acute Respiratory Failure with hypoxia

Secondary Diagnosis (if applicable):

- Severe pulmonary hypertension
- Severe mitral valve stenosis
- Bilateral Pleural Effusion

Pathophysiology of the Disease, APA Format (15 Poits):

The acute respiratory failure is a sudden life-threatening condition, it is a result of deterioration of the gas exchange function of the lungs to provide adequate oxygenation or ventilation for the blood. The acute respiratory failure defined as a decrease in arterial oxygen tension (PaO2) to less than 60mmHg (hypoxemia), and increasing in arterial carbon dioxide

tension (PaCO2) to greater than 50mmHg (hypercapnia), with an arterial pH of less than 7.35 (Hinkle & Cheever, 2018, P609). As of patient's result was 7.28 in pH, 46.7 in PaO2, and 50.2 in PaCO2.

The etiology of the hypoxemic respiratory failure may involves four physiologic mechanism: (1) the mismatch of ventilation and perfusion; (2) Shunt, when blood exits the heart without the having participated in gas exchange; (3) diffusion limitation, when gas exchange across the alveolar capillary membrane is compromised; (4) alveolar hypoventilation, generalized decrease in ventilation that result in increase in PaCO2 and decrease in PaO2 (Lewis, 2011). The predisposing factors for ARF are airway obstruction from lung injury, asthma, COPD, cystic fibrosis; CNS disruption such as opioid drugs, head injury, etc.; chest wall disruption such as flail chest, severe soft tissue injury, rib fracture, kyphoscoliosis, morbid obesity, etc.; neuromuscular disruptions, such as carvical spinal cord injury, phrenic nerve injury, ALS, toxin exposure, etc. (Lewis, 2011).

The early signa and symptoms of ARF including restlessness, fatigue, headache, dyspnea, air hunger, tachycardia, and increasing in blood pressure. As hypoxemia progresses, may present confusion, lethargy, tachycardia, tachypnea, central cyanosis, diaphoresis, and respiratory arrest. The physical finding including acute respiratory distress, accessory muscle use, decrease in breath sound (Hinkle & Cheever, 2018).

Reference:

Hinkle, J. L., & Cheever, K. H. (2018). *Brunner & Suddarths textbook of medical-surgical nursing*. Philadelphia: Wolters Kluwer.

Lewis, S. M. (2011). *Medical-surgical nursing: assessment and management of clinical problems*. St. Louis, MO: Elsevier/Mosby.

Laboratory Data (15 points)

CBC: Highlight all abnormal labs, explanation must contain in-text citation in APA format.

Lab Test	Nomal Range	Adm Value9/28	Today Value	Reason for Abnormality
RBC	3.8-5.41	4.96		
Hgb	11.3-15.2	14.7		
Hct	33.2-45.3%	43.3		
Pletlet	149-493K	179		
WBC	4-11.7K	11.7		
Neutrophil	45.3-79%	82.7		Increased neutrophils accompany with decreased lymphocytes indicate bacterial infection, inflammatory response, tissue necrosis, and severe physical stress (Corbett, 2008).
Lymphocyte	11.8-45.9	9.7		
Monocyte	4.4-12	6.2		
Eosinophil	0-6.3	0.7		
Bands				
Chemistry: Highlight the Abnormal				
Na	135-145	135		
K	3.5-5	4.4		
Cl	98-107	102		
CO2	22-26	22		
Glucose	70-99	234		Elevated glucose level can be seen in Pt with liver disease, but in this case indicates Pt has type II Diabetes Mellitus. However, it also can be seen with Pt after meal unless it was taken for fasting (Corbett, 2008).
BUN	6-20	18		
Creatine	0.5-0.9	1.12		
Albumin	3.5-5.2	4.3		
Ca	8.6-10.4	9.2		
Mg	1.6-2.4	1.8		
Phosphate				

Bilirubin	0-1.2	0.4		
Alk Phos	35-105	74		
TSH	0.4-4.5			
AST	0-32	21		
ALT	0-33	18		
Amylase				
Lipase				
Lactic Acid		2.7		
Cholesterol	200>			
HDL	45<			
LDL	130>			
Triglycerol	35-160			
Lactic Acid	0.5-2.4			
Other Test: Highlight Abnormals				
INR	1			
PT	9.5-11.8			
PTT	30-40			
D-Dimer	250>		0.35	
BNP	500>		258	
A1C	5.7>		7.1	A1C level is increased due to Pt's uncontrolled type II Diabetes Mellites for last three months. The average glucose level for last three months is 157.
Urinalysis:				
C & C	Clear/Yellow			
pH	4.5-8			
S. Gravity	1.005-1.035			
Glucose	0			
Protein	0			
Ketones	0			
WBC	5>			
RBC	0-3			
Leukoesterase	Negative			
Arterial Blood Gas:				
pH	7.35-7.45	7.28		Decreased pH indicates state of acidosis (Corbett, 2008).
PaO2	80-100	46.7		Decreased PaO2 indicates state of hypoxia, which defined as less than 60 of PaO2 (Corbett, 2008).
PaCO2	35-45	50.2		Increased PaCO2 indicates the normal amount of CO2 is not being expired. Causes include hypoventilation, respiratory depression, etc, (Corbett, 2008).
HCO3	22-26	20.9		Decreased HCO3 indicates the state of metabolic acidosis, however, in this case, it serve as state of compensation. It utilizes the HCO3 to buffer acids (Corbett, 2008).

SaO2	95%<	78.7		Decreased SaO2 indicates severely low amount of O2 in blood due to hypoventilation (Corbett, 2008).
Culture:				
Urine	Negative			
Blood	Negative			
Sputum	Negative			
Stool	Negative			

Lab Correlations Reference (APA):

Corbett, J. V. (2008). *Laboratory tests and diagnostic procedures: with nursing diagnoses*. Harlow: Prentice Hall.

Other Diagnostic Tests (EKG, Echocardiogram, Xrays, CT scan, etc) (5 points)

- **ECG**

  The electrocardiography is a graphic image of electrical currents of the heart. The 12-lead ECG is used to diagnose dysrhythmia, conduction abnormalities, and chamber enlargement, as well as myocardial ischemia, injury, or infarction (Hinkle & Cheever, 2018). Patient's ECG indicates sinus tachycardia @120 with fusion complex & atrial enlargement.

- **Chest X-Ray**

  Chest X-Ray is obtained to determine the size, contour, and position of the heart and lungs. It reveals cardiac and pericardial calcification and demonstrate physiologic alteration in the pulmonary circulation (Hinkle & Cheever, 2018). The patient's chest X-Ray indicates pulmonary vascular congestion. Small bilateral effusion, and pulmonary edema.

- **Echocardiogram**

Echocardiogram is ultrasound guided visualization of the heart. It is used to diagnose valve disorder and cardiomyopathy (Hinkle & Cheever, 2018). The patient's result indicates mitral stenosis, left ventricular hypertrophy, and biatrial enlargement.

Diagnostic Test Correation, APA format Reference (5 points):

Hinkle, J. L., & Cheever, K. H. (2018). *Brunner & Suddarths textbook of medical-surgical nursing*. Philadelphia: Wolters Kluwer.

Current Medication (10 points, 1 per completed med)

Home Medication					
Brand/Generic	ASA -Aspirin	atorvastatin -Lipitor	metformin -Glucophage	docusate sodium -Colace	lisinopril -Zestril
Dose	81mg	10mg	1000mg	100mg	2.5mg
Route	PO	PO	PO	PO	PO
Classification	Non-opioid Analgesic	Antilipidemic	Antidiabetic	Stool softener	Antihypertensive ACE Inhibitor
Action	Block prostaglandin synthesis	Inhibits HMG-CoA Reductase production	Increase storage of glucose in liver and reduce glucose production	Decreasinng surface tention between oil and water in feces.	Block RAAS
Reason	Low dose used for blood thinner. Prevention of blood clots.	Pt has hyperlipidemia, to reduce cholesterol level.	Manage and control blood glucose level for diabetic Pt	To prevent constipation that may cause excessive cardiac work load	Lower blood pressure
Contra-indication	Pregnancy No children use Hemophilia Bleeding d/o	Liver d/o Antibiotics use Pregnancy/ Lactation Grapefruits	Hypersensitivity RF	Pregnancy Hypersensitivity	No w/ NSAID Lithium
S/E, A/R	GI bleeding Ulceration	Hepatotoxic Myopathy	Hypoglycemia Abd distention N/V/D	Syncope Palpitation Abd cramp distention	Hpotension Dry cough Angioedema Hyperkalemia

Nursing Intervention	Monitor s/s of bleeding tendency	Monitor: AST / ALT CK level	Monitor: s/s of Renal function CBC, CMP Take w/ food	Monitor: abuse F/E imbalance	Monitor: s/s of VS, BMP, CBC, I&O, ECG, Facial edema
Patient Teaching	Not w/ alcohol Take w/ food (Nurse's, P1287)	Take w/ meal @ night time (Nurse's, P629)	Follow schedule Scheduled Acu check Limit carbohydrate intake (Nurse's, P793)	Increasing fiber fluid intake, encourage exercise (Nurse's, P442)	d/c NSAID Avoid K rich foods d/c/slowly (Nurse's, P170)
Hospital Medications					
Brand/Generic	Vancomycin- Vancocin	haloperidol - Haldol	Albuterol sulfate	Furosemide - Lasix	Insulin aspart - Novolog
Dose	1250mg	2mg BID	1.25mg Q4h	40mg/4ml	Low Dose
Route	IV Pig	PO	Inhalation	IV push	SC
Classification	Antibiotics	Antipsychotic	Bronchodilator	Diuretics	Antidiabetic
Action	Binds to bacterial cell wall, result in cell death	Alters effects of dopamine in CNS, anticholinergic effects	Binds to beta2 adrenergic receptor in airway, relaxes smooth muscle	Inhibits reabsorption Na and water from loop of henle	Stimulate glucose uptake in muscle, fat, inhibit glucose production
Reason	Preventative measure for pulmonary edema until rule out the infection	Pt having Tourette's since he was young	Relax the airway obstruction to promote normal breathing pattern	Management of rid of excess fluid in lungs	Manage and control blood glucose level for diabetic Pt
Contra-indication	Hypersensitivity, liver or renal impairment	Hypersensitivity, bone marrow depression, CNS depressant, Alcohol	Hypersensitivity heart, liver disease, hyperthyroidism	Hypersensitivity of thiazide or sulfonamide	Hypersensitivity Hypoglycemia
S/E, A/R	Anaphylaxis, nephrotoxicity, phlebitis, ototoxicity	Seizure, neuroleptic malignant syndrome, drowsiness	Dysrhythmia Confusion Palpitation, chest pain,	Dehydration, aplastic anemia, agrauerocytosis	Hypoglycemia N/V/D, Anaphylaxis
Nursing Intervention	Monitor: S/S of infection, IV sites, obtain culture, I & O, liver panel, renal function	Monitor: VS Fever, resp distress, tachycardia, seizure, diaphoresis, pallor, LOC change, muscle stiffness, Urin incontinence	Monitor: lung sound, sputum production, HR, BP, before and after Obtain labs: K level	Monitor: K, Na, Cl, Mg, daily weight, Creatine, skin turgor, BP, hypotension	Monitor: s/s of hypoglycemia CBC, take before food

Patient Teaching	Instruct Pt to report: hearing loss, N/V, tinnitis, vertigo, jundice... (Nurse's, P1215)	Take as directed, S/S/of extrapyramidal symptoms, avoid driving or activities, avoid alcohol and CNS depressant (Nurse's, P613)	Avoid alcohol, CNS depressants. Caution for ambulation or position change (Nurse's, P120)	Change position slowly, diet high in K, (Nurse's, P587)	Report: Shaky, dizziness, confusion, diaphoresis occurs (Nurse's, P671)

Lab Refenrence (APA Format):

2018 Nurses drug handbook. (2018). Burlington, MA: Jones & Bartlett Learning.

Assessment

Vital Signs, 2 sets (5 points)

Time	Pulse	BP	RR	Temp	O2
0700	78	132/80	16	35.8 C	97%
1300	72	95/59	18	36.8 C	96%

Physical Assessment (18 Points)

GENERAL(1 points): **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	Patient is present sitting in a chair watching TV. He is A&O x5, very cooperative with no s/s of distress. Pt appears to have good mood as evidenced by Pt smiled and states "I feel good today." Pt's allover appearance is clean and relaxed.
INTEGUMENTARY (2 points): **Skin color:** **character, turgor, rashes, bruises:** **wounds:** **Braden scale :** **Drains present: Y N** **Type**	Pt is Caucasian male and present with fair skin tone. Skin has normal elasticity and texture, warm to touch. No rashes, lesions, or scars present. Pt has normal skin turgor, no s/s of dehydration. Pt has bruises on left and right arms due to unsuccessful IV insertion. Pt has puncture site for thoracentesis in left upper waist. No S/S of infection.
HEENT (2 points): **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth**	Head is midline with no deviation. Hair is short, grey in color. Ears shows no drainage, tympanic membrane intact and pearly grey. PERRLA is noted, Pt use glasses regularly. Nose shows no deviated septum, turbinate equal bilaterally. Oral mucosa is pink and moist with no notable abnormalities. Pt wears full denture.

CARDIOVASCULAR (2 points): Heart sounds: **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable)** **Peripheral Pulses: Radial, pedal** **Capillary refill:** 3> **Neck Vein Distention: Y N** **Edema: Y N** **Location of Edema:** +1 pitting edema in both lower extremities.	Pt currently not being monitored by ECG, Pt was noted to be normal sinus rhythm. Heart sound auscultated x5, no abnormality noted. Pt denies chest pain. Pedal pulse was equal bilaterally, +1of pitting edema noted. Pt states he had the edema for many years, not a new finding for him. Negative for neck vein distension.
RESPIRATORY (2 points): **Accessory muscle use: Y N** **Breath Sounds: Location, character**	No accessory muscles use when breathing. Trachea in midline, no deviation. Pt denies SOB and denies sputum production. Lung sound auscultated, clear throughout bilaterally, no crackle, rhonchi, wheezes noted. Pt breathing in room air.
GASTROINTESTINAL (2 points): **Diet at home:** Regular diet **Current Diet:** Regular **Height:** 177.8 cm **Weight:** 112.6 kg **Auscultation Bowel sounds:** x4 quadrants **Last BM:** Yesterday **Palpation:** **Inspection:** **Ostomy: Y N** **Nasogastric: Y N** **Feeding tubes/PEG tube Y N** **Type:**	Pt eat regular diet at home, although Pt is obese as evidenced by his BMI 35. He states his wife cooks and prepares the meal every day, and they go out eat the restaurant occasionally. He tries to eat more vegetables and fruits. Pt denies alcohol but he is a former smoker for more than 40 years, and recently quit month ago. Pt's abdominal inspection is completed, skin is intact and warm to touch, with no lesion or rash, BS auscultated x 4 quadrants, soft to touch. No mass or tenderness, distension upon palpation. Pt had small BM yesterday. Pt states it looks normal.
GENITOURINARY (2 Points): **Color, character, quantity of urine, pain,** **Dialysis Y N** **Inspection of genitals** **Catheter: Y N** **Type**	Pt is able to ambulate to the bathroom by himself, he denies difficulty, urgency, pain upon urination. No dialysis or catheters. No genital abnormality noted. No abnormal odor noted.
MUSCULOSKELETAL (2 points): **Neurovascular status:** **ROM:** **Supportive devices/strength:** **ADL Assistance: Y N** **Fall Risk: Y N** **Fall score:** **Activity/Mobility Status:**	Pt's has good motility with no S/S of difficulty. He is able to done ADL independently. He states he may be slow but he can do everything himself.

Independent (up ad lib) **Needs assistance with equipment Y N** **Needs support to stand and walk**	
NEUROLOGICAL (2 points): **MAEW: Y N** **PERLA: Y N** **Strength Equal: Y N** **if no - Legs Arms Both** **Orientation, Mental Status, Speech, Sensory,** **LOC:**	Patient is present sitting in a chair watching TV. Just done lunch with 90% completion. He is A&O x5, very cooperative with no s/s of distress. Pt appears to have good mood as evidenced by Pt smiled and states "I feel good today." Pt's strength is equal and bilateral
PSYCHOSOCIAL/CULTURAL (2 points): **Coping methods,** **Educational level** **Developmental level,** **Ethnicity,** **Religion & what it means to pt.** **Occupation (previous if retired)** **Personal/Family Data (Think about home environment, family structure, and available family support)**	Pt is 75 years old Caucasian male, married and retired, living in a senior home in Indiana. He states his wife cooks and prepare meals everyday, they have good social life together. They do go to church occasionally. Recently their daughter has the same exact health problems just like him and he is concerned about that. He was a former smoker for more than 40 years, and just quit a month ago. He drinks occasionally and denies illicit drug use.

Pain Assessment, 2 sets (2 Points)

Time	Scale	Location	Severity	Characteristic	Intervention
1140	0/10				
1455	0/10				

IV Assessment

Site location, Patency / Condition & Date	Fluid Type / Rate or Saline Lock
Left Upper Arm IV Midline Date established: 9/30/2019 IV site is stable and patent. No s/s of infiltration, phlebitis, or other complications. Pt denies pain or numbness, tingling. No evidence of erythema, drainage or swelling noted.	Saline Lock

Input & Output

Input	Output
810 ml	500 ml

Nursing Care

Summary of care (2 points):

Overview of care:

Pt appears to be relaxed and in normal breathing patterns. Patient appeared to be breathing smoothly without any SOB or respiratory distress. Pt denied pain, dyspnea, SOB, or other respiratory related symptoms, his lung sounds was clear throughout bilaterally upon assessment.

Procedure / testing done:

Thoracentesis done in 9/30, and drained 900ml of yellowish fluids from left plural space.

Complain / issues: Pt does not have any complains

Vital signs (stable/ unstable): Pt's VS was stable upon discharge

Tolerating diet, activities, etc.: Pt complete 90% of lunch, and waiting for discharge.

Physician notification: N/A

Future plans for patient: Pt needs to contact his primary doctor for further evaluation in Indiana.

Discharge Planning (2 points)

Discharge location: at hospital

Home health needs (if applicable): N/A

Equipment needs (if applicable): N/A

Follow up plan: Pt needs to contact his primary doctor in Indiana for further evaluation.

Education needs:

Upon discharge, patient will be going back to his home in state of Indiana with his wife. Patient would benefit from a diet high in protein and fiber, low in carbohydrate, sodium, and fat. Patient need to be educated in measuring blood pressure and blood glucose level every day, so he would able to self-aware and monitoring of his condition. He needs to follow the schedule medication every day and stick with it. Patient would follow the scheduled check-up for long-term management of his medical condition. His home environment needs to be assessed as well to minimized the risk of fall.

***The following must be listed in order for priority and must be NANDA approved Diagnosis (18 Points total, 3 Points for each complete diagnosis with 2 interventions & rationales, 3 Points for correct priortization.)**

Nursing Diagnosis	Rationale	Intervention (2 per dx)	Evaluation
1. Ineffective breathing pattern RT respiratory failure AEB Pt's RR was 24 upon arrival (Lewis, 2011)	This is related to Pt's chief complain of shortness of breath	1. O2 supplementation with 5L, in nasal canula 2. Albuterol administration, breathing treatment	Pt's breathing pattern became normal upon discharge
2. Ineffective tissue perfusion RT plural effusion AEB Pt's O2 was 88% upon arrival	This is related to Pt's chief complain of SOB and decreased tissue perfusion	1. Monitor O2 sats for effectiveness of therapy 2. Encourage slow deep breathing, turning, and coughing to	Pt's O2 sats went back to 97% within the normal range upon discharge

(Lewis, 2011)		promote effective breathing technique and change.	
3. Anxiety RT dyspnea and SOB AEB Pt was appears to anxious upon arrival of the hospital (Lewis, 2011)	This is related to Pt's SOB and decreased O2 perfusion	1. Respiratory therapy to treat underlying cause of SOB 2. Encourage use of relaxation techniques	Pt no longer shows S/S of anxiety due to normal breathing patterns
3. 4. Risk for infection RT Pt's puncture wound due to treatment of thoracentesis (Lewis, 2011)	This is related to Pt's diagnosis of diabetes mellitus, put him increased risk for infection and difficulty of wound healing.	1. Monitor Pt's S/S of infection for early detection such as redness, warmth, and swelling 2. Monitor VS especially temp for systemic reaction	Pt shows no S/S of infection, his puncture site is normal in appearrance

Reference:

Lewis, S. M. (2011). *Medical-surgical nursing. assessment and management of clinical problems*. St. Louis, MO: Elsevier/Mosby.