N311 Care Plan 3

Lakeview College of Nursing

Ben Geisler

Demographics (5 points)

Date of Admission	Patient Initials	Age	Gender
8/24/2021	N.C.	79	Female
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
Caucasian	Retired	Unknown	Rofecoxib, Pollen, Codeine (Nausea)
Code Status	**Height**	**Weight**	
DNR	5'3"	197.4 lbs.	

Medical History (5 Points)

Past Medical History: Benign essential hypertension, chronic gastric ulcer, chronic kidney disease stage 3, community acquired pneumonia, degenerative joint disease and osteoarthritis of the hand and right hip, hemiparesis, hyperlipidemia, hypothyroidism, lumber stenosis, nocturia, left leg weakness

Past Surgical History: N/A

Family History: N/A

Social History (tobacco/alcohol/drugs): patient denies use of tobacco, alcohol, and drugs

Admission Assessment

Chief Complaint (2 points): Metabolic Encephalopathy due to community acquired pneumonia

History of present Illness (10 points): The patient is 79-year-old white female who was hospitalized for community acquired pneumonia which then caused the patient to develop metabolic encephalopathy. The patient was sent to Rebekah-Odd Fellow nursing home for

rehabilitation. The patient received computed tomography of the brain and head as well as magnetic resonance imaging of the brain. These showed no acute intracranial abnormalities. The patient also had an electroencephalography performed and it showed background slowing with no epileptiform discharges. (No history and physical provided for this sections)

<div align="center">**Primary Diagnosis**</div>

Primary Diagnosis on Admission (3 points): Community acquired pneumonia

Secondary Diagnosis (if applicable): Metabolic Encephalopathy

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

For pneumonia to occur the harmful pathogens must reach the alveoli and the multiply which will induce a host response (Mandell, 2015). The pathogen reaching the lower airways can occur a few different ways (Mandell, 2015). First off is inhalation. This is simply inhaling the pathogen which could cause a pneumonia. Next is aspiration. This involves fluid or other material going into your lungs when that material belongs in your stomach. This would induce coughing and possibly choking. Lastly is direct inoculation. Direct inoculation is very rare but would involve a traumatic injury that allowed access for a pathogen to get to the alveoli (Mandell, 2015). Clinically, a patient with community acquired pneumonia would generally present as febrile and with tachycardia which are typical and nonspecific signs of infection (Mandell, 2015). When auscultating the lungs, the listener might hear crackles, rhonchi, bronchial breath sounds and possibly a pleural friction rub and what the listener hears would depend on the severity of the pneumonia (Capriotti, 2020). Ultimately, diagnosis is generally made easy with a simple chest Xray (Capriotti, 2020). The patient would have opacities in the lung that the radiologist or provider reading the scan would note to be consistent with pneumonia (Capriotti, 2020).

It is unnoted if my patient had a chest Xray or what kind of symptoms they had related to the pneumonia because the assessment done by the physician was done at the nursing home and not in the hospital.

Metabolic encephalopathy is a disorder in the brain (Learning, 2021). Metabolic encephalopathy is caused by a chemical imbalance in the blood (Leaning, 2021). Generally, the chemical imbalance is caused by illness and unlike some other encephalopathies, it is not caused by a brain injury (Learning, 2021). This chemical imbalance in the brain can cause a variety of symptoms such as: personality changes, foggy or disconnected thinking, as well as short-term and long-term memory problems (Learning, 2021). This illness can last a short or long period of time. The length of the illness generally depends on how bad the illness was that caused the metabolic encephalopathy (Learning, 2021). Treatment for metabolic encephalopathy is treating the underlying chemical imbalance and the illness that caused it (Learning, 2021).

My patient had metabolic encephalopathy related to community acquired pneumonia. My patient experienced an altered mental status due to the metabolic encephalopathy and because of the altered mental status, she received computed tomography (CT) of the brain and head, magnetic resonance imaging (MRI) of the brain, and an electroencephalography (EEG). Generally, with metabolic encephalopathy, all the CT and MRI showed no acute intracranial abnormalities and the EEG showed background slowing with no epileptiform discharges. My patient recovered from the metabolic encephalopathy as evidence by being alert and oriented times 4 and recovering from the pneumonia as evidence by clear breathing sounds.

Pathophysiology References

Capriotti, T. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical*

     perspectives. Philadelphia: F.A. Davis.

Mandell, L. (2015). *Community-acquired pneumonia: An overview*. Postgraduate Medicine.

     127:6, 607-615, DOI: 10.1080/00325481.2015.1074030

Learning about metabolic encephalopathy. (2021). MyHealth.Alberta.ca Government of Alberta

     Personal Health Portal. (n.d.). Retrieved October 26, 2021, from

     https://myhealth.alberta.ca/health/AfterCareInformation/pages/conditions.aspx?hwid=abo

     4850&.

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	4.0-5.8x10^6/mcL	N/A	N/A	N/A
Hgb	12.0-15.8g/dL	N/A	N/A	N/A
Hct	36.0-47.0%	N/A	N/A	N/A
Platelets	140-440K/mcL	N/A	N/A	N/A
WBC	4.0-12.0K/mcL	N/A	N/A	N/A

Neutrophils	**40-60%**	**N/A**	**N/A**	**N/A**
Lymphocytes	**19-49%**	**N/A**	**N/A**	**N/A**
Monocytes	**3.0-13.0%**	**N/A**	**N/A**	**N/A**
Eosinophils	**0.0-8.0%**	**N/A**	**N/A**	**N/A**
Bands	**0.0-10.0%**	**N/A**	**N/A**	**N/A**

Chemistry <mark>**Highlight All Abnormal Labs**</mark>**—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-	**134-144mmol/L**	N/A	N/A	N/A
K+	**3.5-5.1mmol/L**	N/A	N/A	N/A
Cl-	**98-107mmol/L**	N/A	N/A	N/A
CO2	**21-31mmol/L**	N/A	N/A	N/A
Glucose	**70-99mg/dL**	N/A	N/A	N/A
BUN	**7-25 mg/dL**	N/A	N/A	N/A
Creatinine	**0.50-1.20mg/dL**	N/A	N/A	N/A
Albumin	**3.5-5.7 g/dL**	N/A	N/A	N/A
Calcium	**8.6-10.3 mg/dL**	N/A	N/A	N/A
Mag	**1.6-2.6 mg/dL**	N/A	N/A	N/A
Phosphate	**2.4-4.5 units/L**	N/A	N/A	N/A

Bilirubin	0.3-1.0 mg/dL	N/A	N/A	N/A
Alk Phos	20-140 units/L	N/A	N/A	N/A

Urinalysis <mark>Highlight All Abnormal Labs</mark>—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	yellow, clear	N/A	N/A	N/A
pH	5.0-9.0	N/A	N/A	N/A
Specific Gravity	1.001-1.030	N/A	N/A	N/A
Glucose	Negative	N/A	N/A	N/A
Protein	Negative or Trace	N/A	N/A	N/A
Ketones	Negative	N/A	N/A	N/A
WBC	0.0-0.5	N/A	N/A	N/A
RBC	0.0-3.0	N/A	N/A	N/A
Leukoesterase	Negative	N/A	N/A	N/A

Cultures <mark>**Highlight All Abnormal Labs**</mark>**—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	Negative	N/A	N/A
Sputum Culture	Negative	N/A	N/A	N/A
Stool Culture	Negative	N/A	N/A	N/A

Lab Correlations Reference (APA):

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

Computed Tomography (CT) Brain and Head without contrast

- **FINDINGS: No acute intracranial abnormalities**
    - **The CT of the brain and head was done due to the patient's altered mental status (Capriotti, 2020)**

Magnetic Resonance Imaging (MRI) of the brain without contrast

- **FINDINGS: No acute intracranial pathology identified, suspected chronic small vessel ischemic changes**
    - **The MRI of the brain was done due to the patient's altered mental status (Capriotti, 2020)**

Electroencephalography (EEG)

- **Background slowing with no epileptiform discharges**

- o **The EEG was done due to the patient's altered mental status (Capriotti,**

  2020)

Capriotti, T. (2020). Davis advantage for pathophysiology: Introductory concepts and clinical

perspectives. Philadelphia: F.A. Davis.

Current Medications (10 points, 2 points per completed med)

5 different medications must be completed

Medications (5 required)

Brand/ Generic	Furosemide /LASIX	Levothyroxine / ELTROXIN	Atorvastatin /LIPITOR	Acetaminophen /TYLENOL	Naproxen /ALEVE
Dose	40 mg	88 mcg	20 mg	325 mg	220 mg
Frequency	Daily	Daily	Daily	2 tabs every 4 hours as needed	2 tabs, twice a day as needed
Route	PO	PO	PO	PO	PO

Classificatio n	Antihyperte nsive, Diuretic (Jones, 2021)	Thyroid hormone replacement (Jones, 2021)	Antihyperlip idemic (Jones, 2021)	Antipyretic, nonopioid analgesic (Jones, 2021)	Analgesic (Jones, 2021)
Mechanism of Action	Inhibits sodium and water reabsorption in the loop of Henle and increases urine formation. (Jones, 2021)	Replaces endogenous thyroid hormone, which may exert its physiological effects by controlling DNA transcriptio n and protein synthesis. (Jones,2021)	Reduces plasma cholesterol in lipoprotein levels by inhibiting HMG-CoA reductase and cholesterol synthesis in the liver and by increasing the number of LDL receptors on liver cells to	Inhibits the enzyme cyclooxygen ase, blocking prostaglandi n production and interfering with pain impulse generation in the peripheral nervous system (Jones, 2021)	Blocks cyclooxygen ase, the enzyme needed to synthesize prostaglandi ns, which mediate the inflammator y response and cause local pain, swelling, and vasodilation (Jones, 2021)

			enhance LDL uptake and breakdown (Jones, 2021)		
Reason Client Taking	**Hypertension**	**Hypothyroidism**	**Hyperlipidemia**	**Pain**	**Pain**
Contraindications (2)	**Anuria, hypersensitivity to furosemide (Jones, 2021)**	**Hypersensitivity to levothyroxine; uncorrected adrenal insufficiency (Jones, 2021)**	**Active hepatic disease, breastfeeding (Jones, 2021)**	**Severe active liver disease, hypersensitivity to acetaminophen (Jones, 2021)**	**History of asthma, urticaria (Jones, 2021)**
Side Effects/ Adverse Reactions (2)	**Arrythmias, thromboembolism (Jones, 2021)**	**Seizures, arrhythmias (Jones, 2021)**	**Arrhythmias, hypoglycemia (Jones, 2021)**	**Hypotension, stridor (Jones, 2021)**	**Seizures, heart failure (Jones, 2021)**

Medications Reference (APA):

Jones, D.W. (2021). Nurse's drug handbook. (A. Bartlett, Ed.) (20th ed.). Jones & Bartlett

Learning.

Assessment

Physical Exam (18 points)

GENERAL: Alertness: Orientation: Distress: Overall appearance:	The patient was alert and oriented to person, place, time, and situation (A & O x4). The patient showed no signs of distress. The patient's overall appearance was clean, neat, and well groomed.
INTEGUMENTARY: Skin color: Character: Temperature: Turgor: Rashes: Bruises: Wounds: . Braden Score:	The patient's skin color was appropriate for her ethnicity and the skin was warm, dry, and intact. The turgor was loose. There were no rashes, bruises, or wounds present. The patient's Braden score was 14 and they had no drains present.

Drains present: Y☐ N ☒ **Type:**	
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	**Patient's head appeared normocephalic and the neck appeared symmetrical with a midline trachea. The ears had no visible drainage and were not tender to touch. The patient did not have difficulty hearing or seeing. The patient's eyes exhibited PERLA and displayed good movement ability when fields of gaze were tested. Eyes appeared to by symmetrical with no drainage present, conjunctive was pink and not inflamed. Patient's nose was midline and straight. Patient has good oral hygiene, tongue appeared pink and midline with no sores. Buccal mucosa was pink and moist. The patient did have dentures.**
CARDIOVASCULAR: **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:** **Neck Vein Distention: Y ☐ N ☒**	**S1 and S2 were heard. S3 and S4 not heard. When auscultated, the patient appeared to be in normal sinus rhythm. The radial pulse was 3+ bilaterally. The pedal pulse was not assessed due to edema. The posterior tibial pulses were 2+ bilaterally. The capillary refill was intact and less than 3 seconds. No neck**

Edema Y ☒ N ☐ **Location of Edema: Left Lower** **Extremity**	**vein distention was noted. The patient had** **pitting edema in left lower extremity.**
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	**There was no accessory muscle use noted** **when assessing the breathing. When** **auscultating both anterior and posterior the** **breath sounds were bilateral and clear.**

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 ☒
	The patient has a mechanically soft diet at the
	
	nursing home and a regular diet at home. The
	
	patient is standing at 63 inches tall and weighs
	
	197.4 lbs. The patient's bowel sounds were
	
	active in all 4 quadrants and the last bowel
	
	movement was in the morning of 10/19
	
	(assessment on 10/19) and the bowel
	
	movement was regular for the patient. The
	
	patient felt no pain or tenderness upon
	
	palpation. The abdomen had no distention,
	
	incisions, scars, wounds, or drains. The patient
	
	did not have an ostomy, nasogastric tube, or a
	
	feeding tube.

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:
	The patient's urine was not observed therefore color, character, and quantity were not noted. The patient reported no pain with urination and is not doing dialysis. The patient's genitals were not inspected at this time and the patient does not have an indwelling catheter.

MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N ☐** **Fall Risk: Y ☐ N☐** **Fall Score:** **Activity/Mobility Status:**	**The patient's neurovascular status was intact and the passive and active range of motion were intact. The patient used a wheelchair as a supportive device. The patient's upper extremities were strong bilaterally, but the lower left extremity showed weakness with the lower right extremity showing strength. The patient had a tremor in the left hand. The patient does need assistance with her activities**

Independent (up ad lib) ☐ **Needs assistance with equipment** ☐ **Needs support to stand and walk** ☐	**of daily living and the patient is a fall risk with a fall score of 90. The patient cannot move independently, and she does need assistance with equipment and needs support when standing and walking.**
NEUROLOGICAL: **MAEW: Y** ☒ **N** ☐ **PERLA: Y** ☒ **N** ☐ **Strength Equal: Y** ☐ **N** ☒ **if no -** **Legs** ☒ **Arms** ☐ **Both** ☐ **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	**The patient does move all extremities well despite having unilateral weakness in the left lower extremity. The patient's pupils are equal, round, reactive to light and accommodate. The left lower extremity is weakened. The patient is alert and oriented times 4. Her speech is slurred but understandable.**
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 patient uses does puzzles and cryptograms as a coping mechanism. Her developmental level is appropriate for her age. The patient is a Baptist but has never gone to church. The patient graduated from college with an associate's degree. Before the nursing home, the patient lived in the Odd Fellows fellowship center by herself.**

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0930 (10/19)	81	120/74	20	98.4°F	94% on room air

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
1100 (10/19)	numeric	Left lower extremity	1.5/10	dull	Patient states, "nothing helps I just hope it goes away"

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
N/A	N/A

Nursing Diagnosis (15 points)

Must be NANDA approved nursing diagnosis

Nursing Diagnosis	Rational	Intervention (2 per dx)	Evaluation
• Include full nursing diagnosis with "related to" and "as evidenced by" components	• Explain why the nursing diagnosis was chosen		• How did the patient/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
1. **Ineffective airway clearance related to community acquired pneumonia as evidence by chest Xray**	**This was chosen because if the patient cannot get proper airway clearance they cannot breathe sufficiently.**	1. **Teach the patient how to cough and breathe effectively** 2. **Keep the patient as upright as possible**	**The patient responded well to these interventions and maintained a patent airway**
2. **Impaired gas exchange related to community acquired pneumonia as evidence by a**	**This was chosen because impaired gas exchange puts the patient at risk for hypoxia and respiratory**	1. **Ambulate in accordance with the physician's orders** 2. **Put head of bead in semi-**	**The patient responded well to these interventions and can properly breath with bilateral clear lung sounds.**

chest Xray.	acidosis.	fowlers position	

Overall APA format (5 points):

Concept Map (20 Points):

Subjective Data

Nursing Diagnosis/Outcomes

- **Ineffective airway clearance related to community acquired pneumonia as evidence by chest Xray**
- **Impaired gas exchange related to community acquired pneumonia as evidence by a chest Xray**

- Pain is 1.5/10 in the left lower extremity. The pain is dull and does not go away
- Patient has no history of drugs, tobacco, or alcohol use.

Objective Data

Patient Information

Nursing Interventions

1. **Teach the patient how to cough and breathe effectively**
2. **Keep the patient as upright as possible**

1. **Ambulate in accordance with the physician's orders**
2. **Put head of bed in fowler's position**

- 81 beats per minute, 120/74, 20 respiratory rate, 98.4°F, 94% on room air
- Metabolic encephalopathy due to community acquired pneumonia
- History of hypertension and hyperlipidemia putting patient at risk for stroke or myocardial infarction
- Stage 3 chronic kidney disease

- Metabolic encephalopathy due to community acquired pneumonia
- DO NOT RESUSCITATE
- Allergic to Rofecoxib, pollen and codeine