

N321 Care Plan #1

Lakeview College of Nursing

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Demographics (3 points)

Date of Admission 1/21/22	Client Initials JC	Age 65	Gender Male
Race/Ethnicity Caucasian	Occupation Unemployed	Marital Status Married	Allergies Hydromorphone Cefazolin Gentamicin Codeine Penicillin
Code Status Full	Height 72"	Weight 295lbs	

Medical History (5 Points)

Past Medical History: Vascular Dementia with behaviors, Stroke, Hypertension, Cellulitis of right lower extremities, hyperlipemia

Past Surgical History: Lumbar discectomy, Foot debridement, Elbow surgery

Family History: Father: Hypertension, lung cancer, Mother: Hypotension, cancer, Maternal Grandfather: Leukemia, Maternal Grandmother: Leukemia, Paternal Grandfather: Colon Cancer

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use):

Former smoker quite 11 years ago

Assistive Devices: Walker

Living Situation: Nursing home (ECF)

Education Level: High School

Admission Assessment

Chief Complaint (2 points): post-operative infection

History of Present Illness – OLD CARTS (10 points): Onset-1/19/22, Location-Lumbar incision site, Duration-constant, Characteristic-pus appearing and redness surrounding incision, Aggravating-NA, Relieving-NA, Treatments-Antibiotic, Symptoms-pus and redness surrounding incision site

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Acute Metabolic Encephalopathy

Secondary Diagnosis (if applicable): Wound dehiscence

Pathophysiology of Acute Metabolic Encephalopathy

Acute metabolic encephalopathy is a condition in which brain function is disturbed either temporarily or permanently due to different diseases or toxins in the body (Kumar, 2020). Cerebral edema is an excess accumulation of fluid in the intracellular or extracellular space of the brain and found in various brain diseases (Jeon et al., 2021) With the brain swelling it puts pressure on the brain causing the function of the brain to decrease effecting the whole body. The number of patients with encephalopathy increases after the age of 65 years (Berisavac et al., 2017). The complete pathophysiology of encephalopathy is unknown; however, in encephalopathy associated with sepsis, several mechanisms have been proposed (Berisavac et al., 2017).

Signs and symptoms of acute metabolic encephalopathy are confusion, delirium, ataxia, decreased level of consciousness, agitation, and visual changes (Kumar, 2020). More serious symptoms of acute metabolic encephalopathy are seizures, decreased respirations and heart abnormalities (Kumar, 2020). Typically, the first sign of acute metabolic encephalopathy is decreased level of consciousness for the patient.

Diagnostic tests are preformed to diagnosis a person with acute metabolic encephalopathy. A CT, MRI or a EEG are preformed on the brain to see if there are any abnormalities that can be seen by physicians (Kumar, 2020). Not only do they are diagnostic test, but they also draw labs as well to see what the cause of metabolic encephalopathy may be. Atrial blood gases, CBC and CMP are preformed to see what may be cause of encephalopathy or who the encephalopathy is affecting the body (Berisavac et al., 2017). When a CT, MRI or EEG we are expecting to see abnormalities in them do to the effect that there is swelling of the brain. Atrial blood gases and a CMP is drawn to see how the body respiratory system is responding to

the inflammation of the brain. A CBC is performed to see if the cause of the encephalopathy was done to underlying infection that the patient may have. The treatment of metabolic encephalopathy implies the management of the underlying disease that emerged from the evaluation of the neurological symptoms and signs (Berisavac et al., 2017). Antipsychotics such as Haldol may be given in low doses; however, there may be limitations for this drug (Kumar, 2020). This drug helps calm the patient who may be agitated and causing more stress than necessary for the patient. The client should also be placed in a low stressed and low stimulating environment to prevent any aggravation of the encephalopathy (Kumar, 2020).

The client was placed on seizure medication to help prevent those from occurring. The client was also prescribed Haldol BID PRN to help when the patient becomes agitated. The client also had a CT done the result of the CT scan are pending release. The client was treated for the infection he had presented when he came to the hospital. The clients white blood cells have shown a normal status. The client has a follow up appointment with palliative care to help keep the client comfortable.

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

Pathophysiology References (2) (APA):

Berisavac, I. I., Jovanović, D. R., Padjen, V. V., Ercegovac, M. D., Stanarčević, P. D.,

Budimkić-Stefanović, M. S., & Beslač-Bumbaširević, L. G. (2017). How to recognize and treat metabolic encephalopathy in Neurology intensive care unit. *Neurology India*, 65(1), 123.

Kumar, K. (2020). What Is Metabolic Encephalopathy? *MedicineNet*.

https://www.medicinenet.com/what_is_metabolic_encephalopathy/article.htm

Jeon, S. J., Choi, S. S., Kim, H. Y., & Yu, I. K. (2021). Acute acquired metabolic encephalopathy based on diffusion MRI. *Korean Journal of Radiology*, 22(12), 2034.

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	4.10-5.7	2.80	2.91	Malnutrition can cause low levels of RBC. The client has a diagnosis of dementia which could impact the client's ability intake food.
Hgb	12-18	9.6	7.6	Malnutrition and dehydrates can cause low levels of hgb (Capriati, 2020). The client has a diagnosis of dementia which could impact the client's ability intake food.
Hct	37-51	31.5	26.6	Damage to the blood vessels from hypertension and diabetes (Capriati, 2020)
Platelets	140-400	146	248	This lab value is within normal limits
WBC	4-11	8.5	6.60	This lab value is within normal limits
Neutrophils	1.60-7.70	NA	3.67	This lab value is within normal limits
Lymphocytes	1-4.9	NA	1.26	This lab value is within normal limits
Monocytes	0-1.10	NA	1.03	This lab vale is within normal limits
Eosinophils	0-0.50	NA	0.56	This lab is slightly elevated to the client having an infection that was being treated.
Bands	NA	NA	NA	NA

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-	136-145	140	138	This lab value is within normal limits
K+	3.5-5.1	3.7	5.0	This lab value is within normal limits

Cl-	98-107	103	104	This lab value is within normal limits
CO2	22-30	28	24	This lab value is within normal limits
Glucose	60-99	56	185	This lab value would be elevated related to the client's diagnosis of diabetes not being controlled (Hinkle's and Cheever, 2022).
BUN	7-18	15	NA	This lab value is within normal limits
Creatinine	0.60-1.30	0.95	NA	This lab value is within normal limits
Albumin	3.4-4.8	3.0	2.7	This lab value may be low related to the client not intaking enough protein. This would be related to the diagnosis of dementia
Calcium	8.9-10.6	9.4	9.1	This lab value is within normal limits
Mag	1.6-2.6	1.8	Pending	This lab value is within normal limits
Phosphate	NA	NA	NA	NA
Bilirubin	0-5	0.7	0.3	This lab value is within normal limits
Alk Phos	40-150	148	99	This lab value is within normal limits
AST	5-34	18	21	This lab value is within normal limits
ALT	0-55	12	12	This lab value is within normal limits
Amylase	25-125	NA	NA	NA
Lipase	NA	NA	NA	NA
Lactic Acid	NA	NA	NA	NA

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

Lab Test	Normal	Value on	Today's	Reason for Abnormal
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	Range	Admission	Value	
INR	0.9-1.1	NA	1.1	This lab value is within normal limits
PT	11.7-13.5	NA	18	The PT could be elevated do to the medication of anticoagulant not being at the right does.
PTT	NA	NA	NA	NA
D-Dimer	NA	NA	NA	NA
BNP	NA	NA	NA	NA
HDL	NA	NA	NA	NA
LDL	NA	NA	NA	NA
Cholesterol	NA	NA	NA	NA
Triglycerides	NA	NA	NA	NA
Hgb A1c	NA	NA	NA	NA
TSH	NA	NA	NA	NA

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	NA	NA	NA	NA
pH	NA	NA	NA	NA
Specific Gravity	NA	NA	NA	NA
Glucose	NA	NA	NA	NA
Protein	NA	NA	NA	NA
Ketones	NA	NA	NA	NA
WBC	NA	NA	NA	NA
RBC	NA	NA	NA	NA
Leukoesterase	NA	NA	NA	NA

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	NA	NA	NA	NA
Blood Culture	NA	NA	NA	NA
Sputum Culture	NA	NA	NA	NA
Stool Culture	NA	NA	NA	NA

Lab Correlations Reference (1) (APA): Carle Database (2022)

Hinkle, J.L., & Cheever, K. H. (2022). Brunner & Suddath's textbook of medical-surgical nursing (15th ed.). *Wolters Kluwer Health Lippincott Williams & Wilkins*.

Diagnostic Imaging

All Other Diagnostic Tests (5 points): Head CT without contrast: Results are pending release

Diagnostic Test Correlation (5 points): Head CT without contrast: provides cross-sectional images of organs. The CT is an imaging that will show inflammation (Hinkle and Cheever, 2022). This would allow physicians to be able to see if the brain was inflamed.

Diagnostic Test Reference (1) (APA): Hinkle, J.L., & Cheever, K. H. (2022). Brunner & Suddath's textbook of medical-surgical nursing (15th ed.). *Wolters Kluwer Health Lippincott Williams & Wilkins*.

**Current Medications (10 points, 1 point per completed med)
*10 different medications must be completed***

Home Medications (5 required)

Brand/Generic	Apixaban Eliquis	Atorvastatin Lipitor	Furosemide Lasix	Insulin glargine Lantus	Insulin Lispro Humalog
Dose	5mg	40mg	20mg	18u	10U
Frequency	BID	Daily	Daily	BID	TID
Route	PO	PO	PO	Sub-Q	Sub-Q
Classification	Anticoagulants	Dyslipidemia	Diuretic	Insulin	Insulin
Mechanism of Action	Inhibits free and clot bound FXa	HMC-COA inhibitor	Decrease absorption of sodium, chloride and water	Controls blood sugar levels over long period of time	Fast acting controls blood sugar immediately
Reason Client Taking	History of CVA	History of hyperlipidemia	History of Hypertension	History of Diabetes	History of Diabetes
Contraindications (2)	Creatine is greater than 1.5 Spinal Puncture	Myopathy Patients 65 year older of age	Diabetes mellitus Urinary retention	Renal impairment Hepatic impairment	Hypokalemia Hepatic Impairment
Side Effects/Adverse Reactions (2)	Bleeding Nausea	Upper Respiratory infection Musculoskeletal Pain	Hypokalemia Dehydration	Hypoglycemia Lipodystrophy at injection site	Hypoglycemia Nasopharyngitis
Nursing Considerations (2)	Assess for bleeding Stop taken 24 hrs. before invasive procedures	Take in evening with meals Monitor liver function	Daily weight Monitor blood pressure and pulse	Assess blood sugar Rotation of injection sites	Assess blood sugar Rotation of injection sites

Hospital Medications (5 required)

Brand/Generic	Divalproex Depakote	Haloperidol Haldol	Lactobacillus Culturelle	Zinc Oxide Desitin	Oxycodone OxyContin
Dose	500 mg	2mg	10 billion cells	15/49%	2.5mg
Frequency	BID	BID PRN	Daily	As Need	Q8hrs PRN
Route	PO	IM	PO	Topical	PO
Classification	Seizure Disorder	Antipsychotic	Probiotic	Skin Protectant	Opioid
Mechanism of Action	Increases the concentration GABA in the brain	Blocks dopamine receptors	Production of protective mucins	Production of reactive oxygen species	Binging to receptors inbiting of adenylyl- cyclase
Reason Client Taking	Encephalopathy	Dementia with behaviors	Infection	Prevention of farther skin break down	Manage client's pain
Contraindications (2)	Hepatic Impairment	Congenital long QT Bradycardia	Allergies Weekend immune system	Hypersensitivity Radiation	MAO inhibitor within 14 days Asthma
Side Effects/Adverse Reactions (2)	Hepatotoxicity Pancreatitis	Hypotension Seizures	Stomach gas Bloating	Burning Itching	Constipation Confusion
Nursing Considerations (2)	Monitor for bleeding Do not open or crush capsules	Monitor for behaviors Monitor for respirations	Monitor for signs and symptoms Importance of taking it as directed	Apply to site of rash or break down as need Clean the are before application	Avoid activities after taking medication Monitor respirations

Medications Reference (1) (APA): Carle Database (2022)

Jones & Bartlett Learning. (2021). 2021 Nurse's Drug Handbook (20th ed.). *Jones & Bartlett Learning*

Assessment

Physical Exam (18 points) – **HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS**

<p>GENERAL: Alertness: Orientation: Distress: Overall appearance:</p>	<p>Alert Person and place Calm no signs of distress Dressed appropriately for location</p>
<p>INTEGUMENTARY: Skin color: Character: Temperature: Turgor: Rashes: Bruises: Wounds: . Braden Score: Drains present: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Type:</p>	<p>Pink Dry Warm to touch Normal limits NA NA Lumbar puncture (infected), Right foot scabbed over 12</p>
<p>HEENT: Head/Neck: Ears: Eyes: Nose: Teeth:</p>	<p>Midline with body No abnormalities present PERLA Pink moist mucus membranes Missing teeth; Poor dentation</p>
<p>CARDIOVASCULAR: Heart sounds: S1, S2, S3, S4, murmur etc. Cardiac rhythm (if applicable): Peripheral Pulses: Capillary refill: Neck Vein Distention: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Edema Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Location of Edema:</p>	<p>. Normal no murmur present Normal sinus rhythm 2+ Less than 3 seconds Edema is present in both lower extremities, nonpitting edema, edema is currently 2+</p>
<p>RESPIRATORY: Accessory muscle use: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Breath Sounds: Location, character</p>	<p>. Lungs are clear bilaterally throughout posterior and anterior</p>
<p>GASTROINTESTINAL: Diet at home:</p>	<p>. Whatever I eat</p>

<p>Current Diet Height: Weight: Auscultation Bowel sounds: Last BM: Palpation: Pain, Mass etc.:</p> <p>Inspection: Distention: Incisions: Scars: Drains: Wounds: Ostomy: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Nasogastric: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Size: Feeding tubes/PEG tube Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Type:</p>	<p>Diabetic Diet 72inches 295lbs Active in all 4 quadrants 2/23/22 Soft and around, no abnormalities felt upon palpation Within normal Limits, no abnormalities saw upon inspection</p>
<p>GENITOURINARY: Color: Character: Quantity of urine: Pain with urination: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Dialysis: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Inspection of genitals: Catheter: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Type: Size:</p>	<p>Straw yellow No abnormal odor to the urine 600mL at last foley emptying</p> <p>Within normal limits no abnormalities saw</p> <p>Ureteral Catheter present 16 French with 10cc balloon present</p>
<p>MUSCULOSKELETAL: Neurovascular status: ROM: Supportive devices: Strength: ADL Assistance: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Fall Risk: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Fall Score: Activity/Mobility Status: Independent (up ad lib) <input type="checkbox"/> Needs assistance with equipment <input checked="" type="checkbox"/> Needs support to stand and walk <input checked="" type="checkbox"/></p>	<p>Within normal limits no abnormalities present Active range of motion Walker with a gait belt Normal strength 5/5 Related to dementia</p> <p>38 2 assist with transfer and walking</p>
<p>NEUROLOGICAL: MAEW: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> PERLA: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Strength Equal: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> if no -</p>	<p>.</p>

Legs <input type="checkbox"/> Arms <input type="checkbox"/> Both <input type="checkbox"/> Orientation: Mental Status: Speech: Sensory: LOC:	Person and place Confused related to dementia Garbled speech Intact Appropriate for dementia diagnosis
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):	. Medication administered during agitation Not appropriate for age related to dementia NA Client is married has a wife currently resides in a nursing home

Vital Signs, 2 sets (5 points) – HIGHLIGHT ALL ABNORMAL VITAL SIGNS

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
1200	77	100/60 (Right Arm)	19	97.7(F)	97% on room air
.1400	71	110/72 (Right Arm)	16	98.6(F)	97% on room air

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
1200	1-10	NA	0	NA	NA
1400	1-10	NA	0	NA	NA

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV:	22 gauge

Location of IV:	Left forearm
Date on IV:	2/19/22
Patency of IV:	Intact
Signs of erythema, drainage, etc.:	No signs of erythema, drainage, redness or warmth
IV dressing assessment:	Dressing is clean and intake

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
220mL	600mL

Nursing Care

Summary of Care (2 points)

Overview of care: Manage patient's symptoms related to Acute Metabolic Encephalopathy

Procedures/testing done: MRI without contrast and CT without contrast

Complaints/Issues: Post operative infection

Vital signs (stable/unstable): Vital signs are stable

Tolerating diet, activity, etc.: Diabetic diet; 2 assist with transfer and walking

Physician notifications: Notify physician if patient's condition decreases

Future for client: Return to nursing home

Discharge Planning (2 points)

Discharge location: Pending return to nursing home

Home health needs (if applicable): NA

Equipment needs (if applicable): Walker

Follow up plan: Palliative care

Education needs: Following a proper diabetic diet to better control blood sugar and help with wound healing process. How to properly care for wound to prevent infection. The need for the patient to be placed on palliative care.

Nursing Diagnosis (15 points)

Must be NANDA approved nursing diagnosis and listed in order of priority

<p>Nursing Diagnosis</p> <ul style="list-style-type: none"> • 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 	<p>Rationale</p> <ul style="list-style-type: none"> • Explain why the nursing diagnosis was chosen 	<p>Interventions (2 per dx)</p>	<p>Outcome Goal (1 per dx)</p>	<p>Evaluation</p> <ul style="list-style-type: none"> • How did the client/family respond to the nurse’s actions? • Client response, status of goals and outcomes, modifications to plan.
<p>Confusion related to swelling of the brain as evidenced by imaging preformed on the brain.</p>	<p>The client is at risk for increased confusion related to the swelling of the brain.</p>	<ol style="list-style-type: none"> 1. Assess vital and preformed a neurological system signs every hour until stable. 2. Monitor inter cranial pressure continuously. 	<ol style="list-style-type: none"> 1. The patient will not show evidence of decrease neurologic compromise 	<p>The client’s neurological status returned to an appropriate level for the clients diagnoses of dementia.</p>
<p>Infection related to wound dehiscence as evidenced by purulent discharge on lumbar puncture site.</p>	<p>The client is at increased risk for sepsis related to already present infection within the wound.</p>	<ol style="list-style-type: none"> 1. Use sterile technique for dressing changes to prevent contamination of dressing. 2. Assist the client in appropriate diets to help with wound healing process. 	<ol style="list-style-type: none"> 1. The Patient will remain free of signs and symptoms of infection. 	<p>The clients present infection has improved shown by lab values. The client understands the importance of maintain a clean area to wound and maintain sterile dressing while changing the bandage.</p>
<p>Increased risk for a fall related to confusion as evidenced by high fall risk score.</p>	<p>The client is at risk for falls related to the diagnosis of dementia.</p>	<ol style="list-style-type: none"> 1. Assess the room for environmental hazards and adequate lighting 	<ol style="list-style-type: none"> 1. The patient and family will make changes to environment to ensure the safety of the patient. 	<p>The client understands that making sure the environment is a safe place to be mobile decreases the risk of a fall to</p>

		2. Teach the patient the proper way to use their assistive device.		occur.
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Other References (APA): Phelps, L.L. (2020). Sparks and Taylor's Nursing Diagnosis Reference Manual (4th ed.). *Wolters Kluwer*.

Concept Map (20 Points):

Subjective Data

The client was taking following medications prior to hospital stay: Apixaban, atorvastatin, Furosemide, Lantus, Humalog.
Client has denied any pain.
Client appears to be calm
Client came from a nursing home do to concerns about is lumbar insertion site

Nursing Diagnosis/Outcomes

Confusion related to swelling of the brain as evidenced by imaging preformed on the brain.
The client's neurological status returned to an appropriate level for the clients diagnoses of dementia.
Infection related to wound dehiscence as evidenced by purulent discharge on lumbar puncture site.
The clients present infection has improved shown by lab values.
The Client understands importance of keeping wounds clean.
Increased risk for a fall related to confusion as evidenced by high fall risk score.
The client has not yet fallen during stay
The client understands that making sure the environment is a safe place to be mobile decreases the risk of a fall to occur.

Objective Data

Vital signs are the following: B/P 100/60, P 77, R 19, T97.8 (F), O2 97% on room air.
Foley catheter in urethra
Size 16Fr
Fall Score: 38
Braden Score: 12
Lumbar dressing was dry and intact

Client Information

A 65-year-old male admitted for acute metabolic encephalopathy.
PMH: Vascular Dementia with behaviors, Diabetes Mellitus, CVA, hyperlipidemia, Hypertension
PSH: Lumbar discectomy, Elbow surgery, debridement of right foot
Patient is confused and is orientated to person and place.
Client has seizure precautions in place

Nursing Interventions

Medication to help with agitation Haldol 2mg BID PRN
Assess vital and preformed a neurological system signs every hour until stable
Use sterile technique for dressing changes to prevent contamination of dressing
Monitor inter cranial pressure continuously
Assist the client in appropriate diets to help with wound healing process
Assess the room for environmental hazards and adequate lighting
Teach the patient the proper way to use their assistive device.
Orientate patient to reality each time care is performed with the patient.



