N321 Care Plan 1

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N321: Adult Health I

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Demographics (3 points)

Date of Admission	Client Initials	Age	Gender
02/24/2024	RW	92 years	Female
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
Caucasian	Retired	Widowed	Gabapentin – lethargy Barbiturates – unknown reaction Darvon - unknown reaction Levaquin – rash
Code Status	**Height**	**Weight**	
DNR	157 cm (5'2")	49.9 kg (110lbs)	

Medical History (5 Points)

Past Medical History: Alzheimer's Dementia, Anemia, Ductal Carcinoma, Asthma, Urinary Tract Infection, Knee Pain, Chronic Obstructive Pulmonary Disease (COPD), Cardiomegaly

Past Surgical History: Bilateral Mastectomy, Hysterectomy, Lithotripsy with Stent Placement x 2 (3/3/31, 3/9/21)

Family History: Diabetes in son; Myocardial Infarction in father

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

No tobacco, alcohol, or drug use is noted, the client is unable to be assessed due to being nonverbal. Family denies use.

Assistive Devices: The client uses a wheelchair.

Living Situation: The client resides at Hawthorne Inn, an assisted living facility.

Education Level: Unable to assess due to the client being nonverbal and family being unsure of her highest level of education.

Admission Assessment

Chief Complaint (2 points): Altered Mental Status

History of Present Illness – OLD CARTS (10 points): RW presented to the Emergency Room (ER) on 02/24/24 due to altered mental status. Her family states that they noticed she was confused on the 24th, which prompted them to bring her in. They state that at baseline she is alert and oriented to person, but that she is now completely disoriented and lethargic. Since noted by the family, her altered mental status has remained ongoing. In addition to the confusion, her family states that she has stopped eating or drinking and is noticeably more fatigued. She also presented to the ER with a fever, which the family had not noticed before admission. Her daughter states that nothing has seemed to help with her symptoms and no treatment was attempted prior to presenting to the ER. Her disorientation was noted to be severe, and she was unable to verbalize understanding or communicate with others.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Urinary Tract Infection (UTI)

Secondary Diagnosis (if applicable): Acute Kidney Injury (AKI)

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

Urinary tract infections (UTIs) are infections of the urethra, bladder, or ureters. They are most commonly caused by *Escherichia coli*, which is a bacterium that is located in the bowel, entering the sterile urinary tract environment (Capriotti, 2020). Bacterial growth can occur when urine remains in the urethra for too long or when immune functions are diminished (Capriotti, 2020) (Capriotti, 2020). As the bacteria continue to grow and form more colonies, symptoms occur. UTIs are typically caused by improper hygiene and urinary stasis or are hospital-acquired

from catheterization (Capriotti, 2020). Women are more prone to UTIs than men due to the

proximity of the urethra to the rectum. While UTIs typically do not cause serious health

consequences, they may lead to kidney infections or infections in the bloodstream or patients

who are unable to properly fight off infections, such as elderly or immunocompromised people

(Capriotti, 2020).

Patients with a UTI will often first present with pain or burning with urination. They may

feel the need to go shortly after urinating due to inflammation causing urinary retention

(Capriotti, 2020). Their urine may be dark or even blood-tinged. Some patients may experience

spasms of their bladder or urethra (Capriotti, 2020). While the rest of the body systems will

typically be unaffected, in some cases clients will have a fever if the infection has spread to the

kidneys (Capriotti, 2020). In elderly patients, delirium or an altered mental status has been

reported (Hinkle et al., 2022).

UTIs are diagnosed with a urine test. A urinalysis and urine culture and sensitivity will be

performed, which must be collected in a sterile container after the patient wipes with a sterile

wipe. The urinalysis looks for blood cells in the urine, which if present may indicate an infection

(Capriotti, 2020). Urine cultures are used to see if bacteria grow from the sample, and the

sensitivity allows clinicians to assess which antibiotics are best used to fight the specific bacteria

(Capriotti, 2020). Urine cultures take two to three days to grow urine, which can slow proper

treatment.

Antibiotics are the preferred treatment method for UTIs. When a UTI is suspected or

when blood cells are noted in a urinalysis, broad-spectrum antibiotics are the first line of

treatment (Capriotti, 2020). Once the culture and sensitivity are present, a new antibiotic may be

prescribed that the bacteria are susceptible to (Capriotti, 2020). Phenazopyridine may also be

prescribed. This medication helps to relieve the symptoms caused by the infections but does not

treat the infection itself (Capriotti, 2020). Patients are recommended to increase their water

intake to help flush their urinary tract out (Hinkle et al., 2022).

In the case of RW, no symptoms were initially noticed. She had not complained of pain

with urination or increased urgency. Her first symptom was confusion, and while being

evaluated it was noticed that her urine was dark and turbid. A urinalysis and a urine culture were

performed, which showed large amounts of white blood cells in her urine and *E. coli* grew from

her culture. She was started on ceftriaxone, which is an antibiotic given intravenously.

Pathophysiology References (2) (APA):

Capriotti, T. (2020, February 4). Chapter 20. In *Davis Advantage for pathophysiology:*

Introductory Concepts and Clinical Perspectives (Second Edition, pp. 483-485). F.A.

Davis Company

Hinkle, J. L., Cheever, K. H., & Overbaugh, K. (2022). Chapter 49: Management of Patients

with Urinary Disorders. In *Brunner & Suddarth's Textbook of Medical-Surgical Nursing*

(15th ed., pp. 1605-1609). Wolters Kluwer.

Laboratory Data (15 points)

**CBC <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 Value
RBC	3.8 – 5.30 10(6)/mcL	5.30 10(6)/mcL	4.69 10(6)/mcL	N/A
Hgb	12.0 – 15.8 g/dL	15.2 g/dL	13.3 g/dL	N/A
Hct	36.0 – 47.0%	<mark>49.2%</mark>	43.9%	An elevated hematocrit can be linked to dehydration due to the ratio of

				blood cells and volume being disrupted (Pagana et al., 2023). RW has not been drinking fluids for multiple days, which may cause dehydration.
Platelets	140 – 440 10(3)/mcL	236 10(3)/mcL	134 10(3)/mcL	Low platelet levels may be related to infection (Pagana et al., 2023). This patient has a urinary tract infection, which may be related.
WBC	4.00 – 12.00 10(3)/mcL	16.70 10(3)/mcL	13.40 10(3)/mcL	An elevated white blood cell count levels can indicate an infection (Pagana et al., 2023). This patient has a urinary tract infection, which may be related.
Neutrophils	47.0 – 73.0%	74.1%	66.4%	Elevated neutrophils indicate stress on the body, which can be due to infection (Pagana et al., 2023). This patient has a urinary tract infection, which may be related.
Lymphocytes	18.0 – 42.0%	19.1%	26.3%	N/A
Monocytes	4.0 – 12.0%	6.3%	3.6%	Infection is linked to decreased monocyte levels (Pagana et al., 2023). This patient's urinary tract infection may be related.
Eosinophils	0.0 – 5.0%	0.1%	2.6%	N/A
Bands	0% - 3%	N/A	N/A	N/A

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 mmol/L	178 mmol/L	165 mmol/L	Elevated sodium levels may be related to dehydration and kidney problems (Pagana et al., 2023). This patient has not been drinking fluids, leading to dehydration, and was diagnosed with AKI, which could be related to her sodium levels.
K+	3.5 – 5.1 mmol/L	4.2 mmol/L	3.7 mmol/L	N/A
Cl-	98 – 107 mmol/L	141 mmol/L	130 mmol/L	Increased chloride levels are linked to dehydration and kidney issues

				(Pagana et al., 2023). This patient has not been drinking fluids, leading to dehydration, and was diagnosed with AKI, which could be related to her elevated chloride.
CO2	22 – 30 mmol/L	20 mmol/L	23 mmol/L	Decreased CO_2 levels can be indicative of metabolic acidosis, which may be caused by kidney disease (Pagana et al., 2023). RW has an acute kidney injury, which could be related.
Glucose	70 – 99 mg/dL	153 mg/dL	124 mg/dL	Increased glucose levels can be due to stress to the body from injury or infection (Pagana et al., 2023). This patient has a urinary tract infection that has put stress on the body, which may be related.
BUN	10 – 20 mg/dL	79 mg/dL	60 mg/dL	Elevated BUN levels are related to dehydration and kidney problems (Pagana et al., 2023). This patient has not been drinking fluids, leading to dehydration, and was diagnosed with AKI, which could be related to her BUN levels.
Creatinine	0.60 – 1.00 mg/dL	2.10 mg/dL	1.45 mg/dL	Creatinine levels that are elevated are typically indicative of kidney issues, including infection or injury, as well as dehydration (Pagana et al., 2023). This patient has an acute kidney injury, a urinary tract infection, and is dehydrated, all of which may be related to elevated creatinine levels.
Albumin	3.5 – 5.0 g/dL	3.6	N/A	N/A
Calcium	8.7 – 10.5 mg/dL	9.6 mg/dL	8.6 mg/dL	Low calcium levels are related to kidney disease and poor nutrition (Pagana et al., 2023). This patient was diagnosed with AKI and has not eaten in many days, which may be related.
Mag	1.6 – 2.3 mg/dL	N/A	N/A	N/A
Phosphate	2.8 to 4.5 mg/dL	N/A	N/A	N/A

Bilirubin	0.2 – 1.2 mg/dL	0.4 mg/dL	N/A	N/A
Alk Phos	40 – 150 U/L	102 U/L	N/A	N/A
AST	5 – 34 U/L	<mark>43U/L</mark>	N/A	Increased AST levels can be related to acetaminophen usage due to its effects on the liver (Pagana et al., 2023).
ALT	0 – 55 U/L	43 U/L	N/A	N/A
Amylase	53 – 123 U/L	N/A	N/A	N/A
Lipase	0 – 160 U/L	N/A	N/A	N/A
Lactic Acid	0.5 – 2.2 mg/dL	<mark>2.3 mg/dL</mark>	N/A	Elevated lactic acid levels are linked to infections (Pagana et al., 2023). This patient has a urinary tract infection, which may be related.

Other Tests <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
INR	0.8 – 1.1 sec	N/A	N/A	N/A
PT	11.0 – 13.5 sec	N/A	N/A	N/A
PTT	30 – 40 sec	N/A	N/A	N/A
D-Dimer	< 500 ng/mL	N/A	N/A	N/A
BNP	0 – 100 pg/mL	N/A	N/A	N/A
HDL	>60 mg/dL	N/A	N/A	N/A
LDL	< 100 mg/dL	N/A	N/A	N/A
Cholesterol	< 200 mg/dL	N/A	N/A	N/A
Triglycerides	40 – 150 mg/dL	N/A	N/A	N/A
Hgb A1c	4.0 – 6.0	N/A	N/A	N/A

	mmol/mol			
TSH	0.5 – 5.0 uIU/mL	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	Clear, yellow	<mark>Dark yellow, turbid</mark>	N/A	A dark yellow color and turbidity of urine can be indicative of dehydration and infection (Pagana et al., 2023). This patient has a urinary tract infection and has not been drinking for many days which may relate.
pH	5.0 – 9.0	5.0	N/A	N/A
Specific Gravity	1.003 – 1.030	1.023	N/A	N/A
Glucose	Negative	Negative	N/A	N/A
Protein	Negative	<mark>3+</mark>	N/A	Dehydration is linked to large amounts of protein being found in urine (Pagana et al., 2023). RW has not been drinking for many days which may be related.
Ketones	Negative	<mark>Trace</mark>	N/A	Ketones being found in urine can be related to starvation (Pagana et al., 2023). This patient has not eaten in several days, which could cause ketones in her urine.
WBC	Negative, 0 – 5 npf	<mark>Packed</mark>	N/A	White blood cells in a urinalysis can be linked to infection of the urinary tract as well as kidney injuries (Pagana et al., 2023). RW was diagnosed with a urinary tract infection and AKI, which may be the cause.
RBC	Negative, 0 – 2 npf	<mark>3-5</mark>	N/A	Red blood cells in urine can be linked to infection of the urinary tract as well as kidney injuries (Pagana et al., 2023).
Leukoesterase	Negative	<mark>3+</mark>	N/A	Infection of the urinary tract is related to leukoesterase being found in urine samples (Pagana et al.,

				2023).

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	<mark>Positive – Escherichia coli, Enterococcus faecalis, and other mixed growth</mark>	N/A	A positive urine culture is indicative of an infection in the urinary tract (Pagana et al., 2023). This patient was diagnosed with a UTI, which is related to her positive culture.
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 (1) (APA):

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2023). *Mosby's Diagnostic and Laboratory Test*

Reference (16th ed.). Elsevier.

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

2/24/24: Chest X-ray (XR) 2 views – No acute disease noted. All fields are clear.

2/26/24: Chest XR 2 views – No acute cardiopulmonary disease was noted. All fields are clear.

Diagnostic Test Correlation (5 points):

Chest X-rays (XR) are performed to view the structures located in the thoracic portion of

the body. This includes the heart, respiratory system, aorta, and the bones of the chest and

thoracic spine (Pagana et al., 2023). In this patient, a chest XR was performed to check for

possible infection of the lungs due to her elevated white blood count, as well as to rule out

cardiac or respiratory conditions that could be related to her confusion and fatigue (Pagana et al.,

2023). Both of her chest XRs were normal and did not show any infection, cardiac issues, or

other respiratory problems.

Diagnostic Test Reference (1) (APA):

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2023). *Mosby's Diagnostic and Laboratory Test*

      Reference (16th ed.). Elsevier.

Current Medications (10 points, 1 point per completed med)
10 <u>different</u> medications must be completed

Home Medications (5 required)

Brand/Generic	Hydrocodone bitartrate and acetaminophen (Norco)	Acetaminophen (Tylenol)	Acetylsalicylic acid (Aspirin)	Budesonide (Pulmicort)	Sertraline (Zoloft)
Dose	5-325 mg	650 mg	81 mg	0.5 mg/2 mL	50 mg
Frequency	Once daily	As needed every 4 hours	Once daily	Once daily	Once daily
Route	Oral	Oral	Oral	Suspension for inhalation	Oral
Classification	Pharmacologic class: Opioid/acetaminophen combination (Jones & Bartlett Learning, 2023). Therapeutic class: Opioid analgesic (Jones & Bartlett Learning, 2023).	Pharmacologic class: Nonsalicylate, para-aminophenol derivative (Jones & Bartlett Learning, 2023). Therapeutic class: Antipyretic, nonopioid analgesic (Jones & Bartlett Learning, 2023).	Pharmacologic class: Salicylate (Jones & Bartlett Learning, 2023) Therapeutic class: NSAID (Jones & Bartlett Learning, 2023).	Pharmacologic class: Corticosteroid (Jones & Bartlett Learning, 2023). Therapeutic class: Antiasthmatic, anti-inflammatory (Jones & Bartlett Learning, 2023).	Pharmacologic class: Selective serotonin reuptake inhibitor (SSRI) (Jones & Bartlett Learning, 2023). Therapeutic class: Antianxiety, antidepressant (Jones & Bartlett Learning, 2023).
Mechanism of Action	Hydrocodone bitartrate binds to opioid receptors in the	Acetaminophen blocks certain enzymes from	Aspirin prevents enzymes from producing	Budesonide decreases inflammation	Sertraline prevent certain forms

	brain to reduce the perception of pain (Jones & Bartlett Learning, 2023).	producing prostaglandins, which prevent pain impulses from being created. By inhibiting prostaglandin production, the hypothalamus is stimulated to lower body temperature (Jones & Bartlett Learning, 2023).	prostaglandins that produce inflammation and block the generation of pain impulses. It also prevents platelets from sticking together and forming blood clots (Jones & Bartlett Learning, 2023).	of the airway by blocking inflammatory cells from entering the respiratory system (Jones & Bartlett Learning, 2023).	or serotonin from being taken in by neurons which causes increased levels in the synapses, leading to mood boosting effects (Jones & Bartlett Learning, 2023).
Reason Client Taking	Pain control (Jones & Bartlett Learning, 2023).	Fever and pain control (Jones & Bartlett Learning, 2023).	Prophylactic against myocardial infarction (MI) or stroke due to cardiomegaly and family history of MI (Jones & Bartlett Learning, 2023).	Asthma and COPD (Jones & Bartlett Learning, 2023).	Anxiety/ depression from Alzheimer's dementia due to allergy to benzodiazepines (Jones & Bartlett Learning, 2023).
Contraindications (2)	Patients with asthma or respiratory depression should not taken hydrocodone bitartrate (Jones & Bartlett Learning, 2023). Patients who are suspected to have a bowel obstruction should not take hydrocodone (Jones & Bartlett Learning, 2023).	Patients with liver disease should avoid acetaminophen (Jones & Bartlett Learning, 2023). Those who have severe renal impairment should also not take the medication (Jones & Bartlett Learning, 2023).	Patients with a history of GI bleeds and those with clotting disorders should not take aspirin (Jones & Bartlett Learning, 2023).	Patients who recently experience an acute asthmatic episode should not immediately use budesonide (Jones & Bartlett Learning, 2023). Those with severe infections should also not use it due to further immunosuppression (Jones & Bartlett Learning, 2023).	Patients with a history of heart problems or arrythmias and those with glaucoma should not take sertraline (Jones & Bartlett Learning, 2023).
Side Effects/Adverse Reactions (2)	Hydrocodone bitartrate can lead to severe hypotension or respiratory depression, so vital signs should be	Acetaminophen can cause toxicity to the liver, as well as pulmonary edema (Jones & Bartlett Learning,	Stomach ulcers or GI bleeds may be caused by aspirin (Jones & Bartlett Learning, 2023). Aspirin can also lead to	Budesonide can cause pancreatitis or respiratory tract	Sertraline can lead to atrial arrhythmias and serotonin

	monitored while using the medication (Jones & Bartlett Learning, 2023). It may also lead to low potassium levels (Jones & Bartlett Learning, 2023).	2023).	depression of the central nervous system (Jones & Bartlett Learning, 2023).	infections (Jones & Bartlett Learning, 2023).	syndrome (Jones & Bartlett Learning, 2023).
Nursing Considerations (2)	Due to this client's history of COPD and the risk of respiratory depression from hydrocodone bitartrate, respiratory status should be closely monitored (Jones & Bartlett Learning, 2023). Additionally, it should not be given to patients who are disoriented (Jones & Bartlett Learning, 2023).	Liver and kidney function should be assessed prior to administration (Jones & Bartlett Learning, 2023). Care should be taken not to exceed the maximum daily dose to prevent liver toxicity and overdose (Jones & Bartlett Learning, 2023).	Aspirin should be taken with food to prevent GI issues (Jones & Bartlett Learning, 2023). This patient should not take ibuprofen or naproxen with Aspirin as they may interfere with the prophylactic effects to prevent blood clots (Jones & Bartlett Learning, 2023).	Assess patients for an allergy to milk (Jones & Bartlett Learning, 2023). Monitor for signs and symptoms of infection as their immune system can be suppressed (Jones & Bartlett Learning, 2023).	Liver and kidney function should be assessed before giving sertraline (Jones & Bartlett Learning, 2023). This patient should be monitored for GI bleeding due to concurrent treatment with an NSAID (Jones & Bartlett Learning, 2023).

Hospital Medications (5 required)

Brand/Generic	Ceftriaxone (Rocephin)	Artificial tears mineral oil ointment (Lubrifresh)	Furosemide (Lasix)	Insulin lispro (Humalog)	Insulin lispro (Humalog)
Dose	1g	1 eye length ribbon	20 mg	2-12 units per sliding scale	2-6 units per sliding scale
Frequency	Once daily at 2200	Twice daily, morning and night	Twice daily, 0800 and 2000	Three times daily after meals	Once nightly before bed
Route	Intravenous	Topical	Intravenous	Subcutaneous	Subcutaneous

Classification	Pharmacologic class: Third-generation cephalosporin (Jones & Bartlett Learning, 2023). Therapeutic class: Antibiotic (Jones & Bartlett Learning, 2023).	Ophthalmic lubricants and irrigations (Jones & Bartlett Learning, 2023).	Pharmacologic class: Loop diuretic (Jones & Bartlett Learning, 2023). Therapeutic class: Antihypertensive, diuretic (Jones & Bartlett Learning, 2023).	Pharmacologic class: Human insulin (Jones & Bartlett Learning, 2023). Therapeutic class: Antidiabetic (Jones & Bartlett Learning, 2023).	Pharmacologic class: Human insulin (Jones & Bartlett Learning, 2023). Therapeutic class: Antidiabetic (Jones & Bartlett Learning, 2023).
Mechanism of Action	Causes cell walls of bacteria to break down, leading to cell death (Jones & Bartlett Learning, 2023).	Increases the retention of tears (Jones & Bartlett Learning, 2023).	Furosemide prevents water and sodium from being absorbed in the kidneys and therefore reduces fluid volume in the body (Jones & Bartlett Learning, 2023).	Allows for glucose to be used by the body for energy and prevents the liver from producing more glucose (Jones & Bartlett Learning, 2023).	Allows for glucose to be used by the body for energy and prevents the liver from producing more glucose (Jones & Bartlett Learning, 2023).
Reason Client Taking	Urinary tract infection (Jones & Bartlett Learning, 2023)	Right eye irritation (Jones & Bartlett Learning, 2023)	Edema and high levels of sodium in the blood (Jones & Bartlett Learning, 2023).	History of elevated glucose levels (Jones & Bartlett Learning, 2023). She does not have a current diagnosis of diabetes on file but does have trouble regulating her blood glucose levels.	History of elevated glucose levels (Jones & Bartlett Learning, 2023). She does not have a current diagnosis of diabetes on file but does have trouble regulating her blood glucose levels.
Contraindications (2)	Ceftriaxone should not be used concurrently with IV solutions that	Those with trauma to the eye and those allergic to	Patients who cannot produce urine and those with low potassium	Patients with low blood sugar levels should not take insulin until sugar	Patients with low blood sugar levels should not take insulin until sugar

	contain calcium (Jones & Bartlett Learning, 2023). It should also not be given to those allergic to cephalosporins or penicillin (Jones & Bartlett Learning, 2023).	any of the ingredient should not use artificial tears (Jones & Bartlett Learning, 2023).	levels should not take furosemide (Jones & Bartlett Learning, 2023).	levels rise, and it should not be used when patients are allergic (Jones & Bartlett Learning, 2023).	levels rise, and it should not be used when patients are allergic (Jones & Bartlett Learning, 2023).
Side Effects/Adverse Reactions (2)	Toxicity to the kidneys and aplastic anemia may occur (Jones & Bartlett Learning, 2023).	Artificial tears may cause changes in vision or eye pain (Jones & Bartlett Learning, 2023).	Heart arrhythmias and low electrolyte levels may be caused by furosemide (Jones & Bartlett Learning, 2023).	Insulin can cause confusion and hypoglycemia (Jones & Bartlett Learning, 2023).	Insulin can cause confusion and hypoglycemia (Jones & Bartlett Learning, 2023).
Nursing Considerations (2)	Kidney function levels should be monitored to look for nephrotoxicity (Jones & Bartlett Learning, 2023). Bowel movements should be monitored, and diarrhea should be reported due to the risk of *C. difficile* infection (Jones & Bartlett Learning, 2023).	The patient's eye should be assessed for trauma or open wounds (Jones & Bartlett Learning, 2023). Contact lenses should be removed before use and use should be avoided while on this medication (Jones & Bartlett Learning,	Electrolyte levels should be monitored to prevent too much potassium from being excreted, which may cause fatal heart arrythmias (Jones & Bartlett Learning, 2023). Blood pressure should be assessed prior to administration, and furosemide should be withheld if hypotension is noted (Jones	Blood glucose levels should be checked prior to administration to determine how many units should be given (Jones & Bartlett Learning, 2023). Injection sites should be rotated (Jones & Bartlett Learning, 2023).	Blood glucose levels should be checked prior to administration to determine how many units should be given (Jones & Bartlett Learning, 2023). Injection sites should be rotated (Jones & Bartlett Learning, 2023).

		2023).	& Bartlett Learning, 2023).		

Medications Reference (1) (APA):

Jones & Bartlett Learning (2023). *NDH: Nurse's Drug Handbook*. Jones & Bartlett Learning.

Assessment

Physical Exam (18 points) – <mark>**HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS**</mark>

GENERAL: **Alertness:** <mark>Lethargic</mark> **Orientation:** <mark>Disoriented to person, place, time, and situation</mark> **Distress:** No acute distress **Overall appearance:** Well-groomed	<mark>RW is A/o x 0. She responds slowly to verbal stimuli by opening her eyes or smiling but is unable to verbally respond. She is disoriented to person, place, time, and situation</mark>. She shows no signs of acute distress, her appearance is appropriate, and she is well-groomed.
INTEGUMENTARY: **Skin color:** Fair, appropriate for ethnicity **Character:** <mark>Flaky extremities, moist torso</mark> **Temperature:** <mark>Cool</mark> **Turgor:** <mark>Tenting, edema</mark> **Rashes:** None **Bruises:** None **Wounds:** <mark>Frontal scalp, 3cm x 3cm</mark> **Braden Score:** <mark>10</mark> **Drains present: Y ☐ N ☒** **Type:** N/A	Skin is fair, which is appropriate for her ethnicity and she is without pallor, cyanosis, jaundice, or redness. <mark>Her extremities are cool and flaky. Her torso is cool and moist. She has tenting noted and nonpitting edema present throughout her extremities.</mark> No rashes or bruises are noted. <mark>She has a wound on her frontal scalp that measures 3cm x 3cm. Her Braden score is 10</mark>. No drains are present.
HEENT: **Head/Neck:** WDL **Ears:** Hearing diminished **Eyes:** <mark>L eye vision diminished; R eye vision diminished, remains closed, appears red with exudate</mark> **Nose:** WDL **Teeth:** <mark>Poor dentition; missing most teeth</mark>	Head and neck are symmetrical, trachea is midline without deviation. Her thyroid and lymph nodes are nonpalpable and nontender. <mark>She has diminished vision bilaterally, and her right eye is noted to have exudate.</mark> Septum is midline without deviation. <mark>She has poor dentition, with multiple missing teeth. Her oral mucous membranes are dry and cracked.</mark> .
CARDIOVASCULAR: **Heart sounds:** S1 and S2 present **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** WDL **Peripheral Pulses:** <mark>2+ throughout</mark> **Capillary refill:** <3 seconds **Neck Vein Distention: Y ☐ N ☒** **Edema: <mark>Y ☒</mark> N ☐** **Location of Edema:** <mark>all extremities, non-</mark>	Heart rhythm and rate are normal, with S1 and S2 present. <mark>Her pulses are slightly diminished throughout.</mark> Capillary refill is less than 3 in her fingers and toes. No jugular vein distention is noted. <mark>She has non-pitting edema in all extremities.</mark>

==pitting==	
RESPIRATORY: **Accessory muscle use:** Y☐ N☒ **Breath Sounds (location, character):** clear, equal bilaterally posterior and anterior	Rate and rhythm of respirations is equal and nonlabored. No accessory muscle use or retractions are noted. She has clear and equal breath sounds bilaterally, posterior and anteriorly.

GASTROINTESTINAL:
Diet at home: ==Soft mechanical==
Current Diet: ==Full liquid==
Height: 157 cm
Weight: 49.9 kg
Auscultation Bowel sounds: Normoactive
Last BM: 2/26/24
Palpation: Pain, Mass etc.: Nontender, no masses
Inspection:
    Distention: None
    Incisions: None
    Scars: None
    Drains: None
    Wounds: None
Ostomy: Y ☐ N ☒
Nasogastric: Y ☐ N ☒
    Size: N/A
Feeding tubes/PEG tube Y ☐ N ☒
    Type: N/A
	Bowel sounds were normoactive in all four quadrants. Her last bowel movement was on 2/26/24. Her abdomen in nontender on palpation and no organ enlargement or masses were noted. No wounds, drains, distention, or scars were noted.

GENITOURINARY:
Color: ==Amber==
Character: ==Cloudy==
Quantity of urine: 550 mL from 0700-1200
Pain with urination: Y ☐ N ☒
Dialysis: Y ☐ N ☒
Inspection of genitals: WDL
Catheter: ==Y ☒== N ☐
    Type: ==Female purewick external catheter==
    Size: N/A
	==Urine is amber is color and cloudy.== Urine output is a total of 550mL during the time this nursing student was present. ==A female external catheter is present due to incontinence.==

MUSCULOSKELETAL: **Neurovascular status:** ==Decreased sensation== **ROM:** ==Diminished== **Supportive devices:** ==Wheelchair== **Strength:** ==Diminished== **ADL Assistance:** ==Y ☒== N ☐ **Fall Risk:** ==Y ☒== N ☐	Decreased sensation is noted in her feet and legs. She has decreased range of motion and is unable to move her extremities without support. She uses a wheelchair and needs assistance with her ADLs. She is a high fall risk with a score of 95. She is unable to stand or walk.

Fall Score: <mark>95</mark> **Activity/Mobility Status:** <mark>Bedrest</mark> **Independent (up ad lib): Y** ☐ **N**<mark>☒</mark> **Needs assistance with equipment:** <mark>**Y** ☒</mark> **N**☐ **Needs support to stand and walk:** <mark>**Y** ☒</mark> **N**☐	
NEUROLOGICAL: **MAEW: Y** ☐ <mark>**N**☒</mark> **PERLA: Y** ☐ <mark>**N**☒</mark> **Strength Equal: Y** ☒ **N** ☐ **if no -** **Legs** ☐ **Arms** ☐ **Both** ☐ **Orientation:** <mark>Disoriented</mark> **Mental Status:** <mark>Altered</mark> **Speech:** <mark>Unable to form sentences, tries to form words</mark> **Sensory:** <mark>Diminished</mark> **LOC:** <mark>Lethargic</mark>	She is unable to move her extremities without assistance. All extremities move with equal strength. Right eye is unable to open well, so this nursing student in unable to assess both pupils. She in lethargic and disoriented to person, place, time, and situation. She has an altered mental status, as her baseline is A/O x1 and is typically alert. She is unable to speak but is able to yell or moan when she is experiencing pain.
PSYCHOSOCIAL/CULTURAL: **Coping method(s):** Unable to assess **Developmental level:** Ego integrity vs. despair **Religion & what it means to pt.:** Christian **Personal/Family Data (Think about home environment, family structure, and available family support):** Daughters, son, and extended family.	RW is 92 years old and in her ego integrity vs. despair stage of development. Due to her Alzheimer's dementia and nonverbal status, coping mechanisms and what religion means to the client were unable to be assessed. She resides in an assisted living facility and has two daughters, a son, and multiple grandchildren that provide emotional and physical support to her.

Vital Signs, 2 sets (5 points) – <mark>HIGHLIGHT ALL ABNORMAL VITAL SIGNS</mark>

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0730	69 bpm	<mark>105/55</mark>	18 bpm	97.9 F temporal	96% room air
1130	72 bpm	<mark>125/50</mark>	16 bpm	97.2 F temporal	99% room air

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0730	Faces	N/A	0/10	N/A	N/A
1130	Faces	N/A	0/10	N/A	N/A

The client is nonverbal and therefore cannot self-report pain. The faces scale was used by this nursing student. The client was smiling and without any indications of pain upon both pain assessments.

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: 20 gauge **Location of IV:** Right arm accessory cephalic **Date on IV:** 02/26/24 **Patency of IV:** Normal **Signs of erythema, drainage, etc.:** None **IV dressing assessment:** Clean, dry, and intact	Dextrose 5% in water (D5W) at 100 mL/hr

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
0730-1230: D5W at 100 mL/hr, 500 mL	0755: 250mL; purewick external catheter 1145: 300 mL; purewick external catheter 1145: incontinent of stool x1 bowel movement

Nursing Care

Summary of Care (2 points)

Overview of care: This student nurse arrived on the unit and introduced herself to the client and the client's family who was present at the bedside. This student nurse evaluated the patient's suction canister and noted 250 mLs or amber colored urine. The canister was disposed of and replaced with a clean canister. The client's external catheter was evaluated for cleanliness and proper placement. This student nurse evaluated the client's vital signs and assessed the room for cleanliness. The family was asked about the client's eating habits due to her nonverbal status, and they informed this nursing student that the patient was not eating or drinking. This nursing student was then pulled into a different client's room due to assist with post-mortem care, which caused this nursing student and the nurse preceptor to be unable to attend to this client for a period of time. During this time, a chest X-ray was performed to evaluate the client's lungs. This nursing student then performed a head-to-toe assessment on the client and assisted the nurse preceptor in gathering medications. This nursing student administered furosemide as ordered to the client. The client's glucose level was assessed, and it was noted that no insulin was to be given at the time. This student nurse then evaluated the client's vital signs. This student nurse then noted the suction canister had 300mL of urine noted. The urine was collected for lab testing. The patient was given a bed bath, perineal care was performed, and a new external catheter was placed. This nursing student then thanked the client and the client's family for allowing her to participate in their care and reported to the nurse preceptor prior to leaving the facility.

Procedures/testing done: The client had a chest X-ray with 2 views performed in the room via portable machine at 1045.

Complaints/Issues: The client did not verbalize any issues or show any signs of distress.

Vital signs (stable/unstable): The client's vital signs remained stable.

Tolerating diet, activity, etc.: The client did not tolerate any food or activity.

Physician notifications: The physician was notified when the chest X-ray results were available.

Future plans for client: The physician recommended a urine sodium level to ensure the furosemide was working appropriately, and close monitoring of kidney function levels. They recommended the client remain admitted while the infection cleared. Orders for urinalysis and urine sodium were placed. Speech is to be consulted for a swallow test to ensure the client is able to eat properly. Hospice is to be consulted to see if this client qualifies.

Discharge Planning (2 points)

Discharge location: Hawthorne assisted living.

Home health needs (if applicable): Hospice care if indicated.

Equipment needs (if applicable): Wheelchair.

Follow up plan: The patient is to follow up with her Urologist, unless she is placed on hospice for care.

Education needs: Education should be provided to the family to ensure proper perineal care is being given. Education on hydration and nutrition is needed to prevent dehydration and malnutrition. Education on hospice care may be needed after a consultation from hospice.

Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis and listed in order of priority

Nursing Diagnosis	Rationale	Interventions (2 per dx)	Outcome Goal (1 per dx)	Evaluation
• Include full nursing	• Explain why the			• How did the client/family

diagnosis with "related to" and "as evidenced by" components • Listed in order by priority – highest priority to lowest priority pertinent to this client	nursing diagnosis was chosen			respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
1. Excess fluid volume related to elevated blood sodium levels as evidenced by edema, serum sodium level of 165 mmol/L and altered mental status (Phelps, 2023).	This nursing diagnosis was chosen due to the assessment of the patient which noted edema and elevated sodium levels (Phelps, 2023).	1.Monitor kidney function, sodium, and blood count levels (Phelps, 2023). 2.Give IV fluids as ordered with care not to fluid overload the client (Phelps, 2023).	1. The client's sodium level will continue to improve during the treatment plan (Phelps, 2023).	The client's family understood the need for proper fluid volume. D5W was given to decrease sodium levels, which were noticeably lower than upon admission.
2. Acute confusion related to dehydration as evidenced by A/O x 0, altered mental status, alteration in speech, and decreased fluid intake (Phelps, 2023).	This nursing diagnosis was chosen due to the patient's baseline mental status being altered. The patient presents very confused and is lethargic and disoriented (Phelps, 2023).	1. Monitor mental status and level of consciousness regularly for any changes (Phelps, 2023). 2. Involve family in the client's care to help reorient the patient (Phelps, 2023).	1. The patient will remain calm and cooperative with her care (Phelps, 2023).	The client's family was agreeable with the plan. Th client remained calm and cooperative during her care.
3. Risk for impaired	This nursing diagnosis	1. Turn the client every 2	1. The patient will remain	The client's family understood

skin integrity related to decreased physical mobility as evidenced by Braden score of 10, altered skin turgor, urinary and bowel incontinence, age, decreased ROM, nutritional status, and altered mental status (Phelps, 2023).	was chosen due to the patient's inability to move without help and her urinary and bowel incontinence. These factors greatly impact the patient's risk of developing pressure ulcers (Phelps, 2023).	hours of more if needed (Phelps, 2023). **2**Maintain proper perineal care and cleanliness (Phelps, 2023).	without any pressure injuries during their admission (Phelps, 2023).	the need for proper skin care and pressure ulcer prevention. The client has remained free from pressure injuries thus far.

Other References (APA):

Phelps, L. L. (2023). *Nursing diagnosis reference manual* (12th ed.). Wolters Kluwer.

Concept Map (20 Points):

Subjective Data

The client has an altered mental status and seems to be severely confused. She does not currently appear to be in any pain.

Nursing Diagnosis/Outcomes

Diagnosis 1: Excess fluid volume related to elevated blood sodium levels as evidenced by edema, serum sodium level of 165 mmol/L and altered mental status (Phelps, 2023).
Outcome 1: The client's sodium level will continue to improve during the treatment plan (Phelps, 2023).
Diagnosis 2: Acute confusion related to dehydration as evidenced by A/O x 0, altered mental status, alteration in speech, and decreased fluid intake (Phelps, 2023).
Outcome 2: The patient will remain calm and cooperative with her care (Phelps, 2023).
Diagnosis 3: Risk for impaired skin integrity related to decreased physical mobility as evidenced by Braden score of 10, altered skin turgor, urinary and bowel incontinence, age, decreased ROM, nutritional status, and altered mental status (Phelps, 2023).
Outcome 3: The patient will remain without any pressure injuries during their admission (Phelps, 2023).

Objective Data

The client was diagnosed with a urinary tract infection and subsequently an acute kidney injury. Her medical history includes Alzheimer's Dementia, Anemia, Ductal Carcinoma, Asthma, Urinary Tract Infection, Knee Pain, Chronic Obstructive Pulmonary Disease (COPD), Cardiomegaly. Twenty one of her lab tests were abnormal. Her urine culture showed E. coli, leading to her UTI diagnosis. She has an elevated sodium level, which is being treated with D5W IV fluids. Her vitals were stable, with her most recent being: B/P – 125/50; HR – 72; RR – 16; temp – 97.2F temporal; and SpO_2 – 99% on room air.

Client Information

RW is a 92 year old female who resides at Hawthorne assisted living. She is 49.9 kg and 157 cm. She is widowed and has multiple children, all present at bedside.

Nursing Interventions

Intervention 1A: Monitor kidney function, sodium, and blood count levels (Phelps, 2023).
Intervention 1B: Give IV fluids as ordered with care not to fluid overload the client (Phelps, 2023).
Intervention 2A: Monitor mental status and level of consciousness regularly for any changes (Phelps, 2023).
Intervention 2B: Involve family in the client's care to help reorient the patient (Phelps, 2023).
Intervention 3A: Turn the client every 2 hours of more if needed (Phelps, 2023).
Intervention 3B: Maintain proper perineal care and cleanliness (Phelps, 2023).