N311 Care Plan 3

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N311: Foundations of Professional Practice

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Demographics (5 points)

Date of Admission 3/1/24	**Client Initials** V.N	**Age** 90	**Gender** F
Race/Ethnicity Caucasian	**Occupation** Not on file	**Marital Status** Widowed	**Allergies** Lisinopril, Tramadol, Vicodin
Code Status DNR	**Height** 5'0	**Weight** 100 lbs.	

Medical History (5 Points)

Past Medical History: Chronic obstructive pulmonary disease, Hyperlipidemia, Hypertension, Hypothyroidism

Past Surgical History: Appendectomy, Colonoscopy (5/28/19) (3/4/24) (3/5/24), Coronary angioplasty with stent placement, Tonsillectomy

Family History: mother- leukemia (deceased), father- cancer, CHF, heart attack, stroke, hypertension (deceased), brother- parkinsonism

Social History (tobacco/alcohol/drugs including frequency, quantity, and duration of use): used to smoke a pack of cigarettes a day for 40 years (10/28/1950 – 1/1/2003)

Admission Assessment

Chief Complaint (2 points): fall per report of caregiver

History of Present Illness – OLD CARTS (10 points): Patient was unable to give information about the fall she experienced. She was very confused. The onset most likely was present the day before she was admitted which was when the patient fell. Patient is experiencing pain in her right hip. It is unable to determine the characteristics of the pain. When the patient turns, this seems to

increase the pain. Patient is unable to state if anything makes it better. She has not done anything to help this pain.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): urinary tract infection

Secondary Diagnosis (if applicable): n/a

Pathophysiology

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

Lower Urinary Tract Infections are the reason for 6 to 7 million primary care visits per year (Capriotti & Frizzell, 2020, p.551). For all 75% - 90% cases of UTIs, *Escherichia coli* is the most common organism that causes urinary tract infections along with a few other organisms (Capriotti & Frizzell, 2020). According to Capriotti's explanation in the Davis Advantage for Pathophysiology textbook, the bacteria involved may have an outer coating that makes them resistant to the acid in the urine. They may also emit cytotoxic necrotizing factor and hemolysins, which raises the possibility of migration up to the bladder (Capriotti & Frizzell, 2020).

Proteus mirabilis is an additional gut bacterium that has the capacity to release urease, which lessens the urine's high acidity and increases the bacteria's ability to enter the bladder. (Capriotti & Frizzell, 2020). Capriotti continues with “The bacteria are flagellated and swarm in large groups when migrating to the bladder.” You would commonly know that urinary tract infections occur when bacteria is entered through the urethra and to the bladder (Mayo Clinic, 2022, para. 7).

There are different signs and symptoms that may present you with a UTI. Mayo Clinic, (2022), displays signs and symptoms that include, a strong urge to urinate, a burning feeling when urinating, cloudiness and dark colored urine, and strong-smelling urine (para 4). There is not a lot to a urinary tract infection when it comes to the signs and symptoms.

Urinalysis and urine culture are used to diagnose a UTI (Capriotti & Frizzell, 2020, p. 552). In the *Davis Advantage for Pathophysiology* textbook, Capriotti explains what would be seen in these tests. When a dipstick urinalysis is performed, red blood cells are often visible along with positive leukocyte esterase, which indicates white blood cells, and nitrates, which indicate bacteria. A clean-catch midstream urine specimen microscopic urinalysis reveals the presence of bacteria, RBCs, and neutrophils. When the number of bacteria in a urine culture is more than 10^5/mL, it is considered an infection (Capriotti &Frizzell, 2020).

Pathophysiology References (2) (APA):

Capriotti, T. & Frizzell, J.P. (2020). *Pathophysiology: Introductory concepts and clinical perspectives.* (2nd ed.). F.A. Davis Company

Mayo Clinic. (2022, September 14). *Urinary tract infection (UTI) - Diagnosis and treatment - Mayo Clinic*. Mayoclinic.org. https://www.mayoclinic.org/diseases-conditions/urinary-tract-infection/diagnosis-treatment/drc-20353453

Mayo Clinic . (2022, September 14). *Urinary Tract Infection (UTI) - Symptoms and Causes*. Mayo Clinic. https://www.mayoclinic.org/diseases-conditions/urinary-tract-infection/symptoms-causes/syc-20353447

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	4.2-5.4 million/mm3	2.23 million/mm 3 (low)	2.92 million/mm3 (low)	A urinary tract infection can cause the RBC to be high (Johns Hopkins Medicine, 2019, para. 3).
Hgb	12.0-16.0 g/dL	7.3 g/dL (low)	8.8 g/dL (low)	This patient may have a low Hgb due to the low count of RBC since those two go hand in hand. This patient is 90 years old and being put on hospice so her body may not be producing the proper amount of RBC since her body is shutting down.
Hct	35-47%	21.77% (low)	26.1 (low)	Cleveland Clinic gives information about how anemia is the most common reason for a hematocrit level to be low (Cleveland Clinic, 2022). Although this patient hasn't been diagnosed with anemia, it is clear this patient has it due to the RBC being low as well as their Hbg count.
Platelets	140-440	277	240	normal value

WBC	4.00-12.00	14.80 (high)	8.10 (high)	Medicine Clinic (2021) states, "when you get sick, your body makes more white blood cells" (para. 2). This patient's body immune system is very weak and shutting down so that can cause an increase of white blood cells. Along with that, the client has a large mass in her colon and a cyst on her kidney, so the body may be producing more WBC to help try to fight that. She also has a UTI which can affect the WBC. According to Memorial Sloan Kettering Cancer Center (2022), they state "a UTI can cause an increase of white blood cells in the urine" (para. 6).
Neutrophils	47-73%	94.2% high	85.9% (high)	An increase of neutrophils be due to an infection going on (Storrs, 2024, para. 8). Since the patient is medically diagnosed with a urinary tract infection, the infection can be causing a spike in neutrophils.
Lymphocytes	18-42%	1.7% (low)	7.6% (low)	According to Cleveland Clinic (2023), "Lymphopenia has many causes. The most common causes are infections and nutritional deficiencies" (para. 10). This patient has both an infection in their urine and weighing on the lower side since her body is shutting down. This patient was ranging on the weight scale of 97-100 pounds. These both may play a role in why the lymphocyte count is low**.**
Monocytes	4.0-12.0%	4.0%	6.4%	normal value
Eosinophils	0.0-5.0%	0	0.1%	normal value
Bands	n/a	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	136 mmol/L	137	normal value
K+	3.5-5.0 mmol/L	4.4 mmol/L	4.5	normal value
Cl-	97-107 mmol/L	102 mmol/L	106	normal value
CO2	22-30 mmol/L	22 mmol/L	23	normal value
Glucose	60-110 mmol/L	128 mmol/L	126 high	High glucose levels can be from diabetes but not always. It can also be related to family history or certain lifestyle factors like diet (Gasnick, 2023). This patient has some malnutrition going on so this could be a cause.
BUN	12-20 mg/dL	17 mg/dL	24 high	"Urea nitrogen levels tend to increase with age" (Mayo Clinic, 2021). This patient is 90 years old so this is a great possibility of why the levels can be high. It could also be present in this patient due to her medical diagnosis of a urinary tract infection.
Creatinine	0.7-1.3 mg/dL	1.3 mg/dL	0.83	normal value
Albumin	3.5-5.0 g/dL	2.8 g/dL (low	n/a	"Hypoalbuminemia happens when your body doesn't produce enough of the albumin protein" (Cleveland Clinic, 2022). Cleveland Clinic describes that hypoalbuminemia can occur if there is dark colored urine or weak muscle tone. This is most likely present in this patient because of their dark-colored urine and malnutrition due to only being around 100 pounds.
Calcium	8.7-10.5 mg/dL	8.7 mg/dL	8.7	normal value
Mag	1.7-2.2 mg/dL	n/a	n/a	n/a

Phosphate	2.5- 4.5 mg/dL	n/a	n/a	n/a
Bilirubin	0.2-1.2 mg/dL	1.1 mg/dL	n/a	normal value
Alk Phos	40-150 U/L	70 U/L	n/a	normal value

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	Yellow/clear	dark yellow and cloudy	n/a	The dark yellow and cloudy urine could be present due to the patient being diagnosed with a urinary tract infection. Urine should be yellow and clear
pH	4.5-8	n/a	n/a	n/a
Specific Gravity	1.005-1.025	1.020	n/a	normal value
Glucose	negative	negative	n/a	n/a
Protein	negative	n/a	n/a	n/a
Ketones	negative	n/a	n/a	n/a
WBC	0-5/hpf	6-10	n/a	n/a
RBC	0-5/hpf	6-10	n/a	n/a
Leukoesterase	negative	n/a	n/a	n/a

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	<10,000	n/a	n/a	n/a
Blood Culture	10-30	n/a	n/a	n/a
Sputum Culture	>leukocytes <10	n/a	n/a	n/a

	epithelial			
Stool Culture	7-7.5	n/a	n/a	n/a

Lab Correlations Reference (1) (APA):

Cleveland Clinic. (2022a). *Hypoalbuminemia: Causes, Symptoms, Treatment & Outlook*. Cleveland Clinic. https://my.clevelandclinic.org/health/diseases/22529-hypoalbuminemia

Cleveland Clinic. (2022b, July 18). *Hematocrit (Red Blood Cells) Test*. Cleveland Clinic. https://my.clevelandclinic.org/health/diagnostics/17683-hematocrit

Cleveland Clinic. (2023, March 15). *Lymphopenia: Symptoms, causes & treatment*. Cleveland Clinic. https://my.clevelandclinic.org/health/diseases/24837-lymphopenia

Gasnick, K. (2023, June 11). *High Blood Sugar in People Without Diabetes*. Verywell Health. https://www.verywellhealth.com/causes-blood-sugar-rise-in-non-diabetics-5120349#:~:text=High%20blood%20sugar%20(hyperglycemia%20)%20is

Hematuria (Blood in the Urine). (2019, November 19). Www.hopkinsmedicine.org. https://www.hopkinsmedicine.org/health/conditions-and-diseases/hematuria-blood-in-the-urine#:~:text=Kidney%20infection%20or%20disease

Mayo Clinic. (2023, August 5). *Blood urea nitrogen (BUN) test* . Mayoclinic.org. https://www.mayoclinic.org/tests-procedures/blood-urea-nitrogen/about/pac-20384821

MedlinePlus. (2021, September 16). *White Blood Count (WBC): MedlinePlus Medical Test*. MedlinePlus. https://medlineplus.gov/lab-tests/white-blood-count-wbc/

Storrs, C. (2024, January 2). *What Do High and Low Neutrophil Counts Mean?* Www.patientpower.info. https://www.patientpower.info/what-do-high-and-low-neutrophil-counts-mean

UTI or Cancer: What To Know About Blood in the Urine | Memorial Sloan Kettering Cancer Center. (2022, October 12). Www.mskcc.org. https://www.mskcc.org/news/uti-cancer-what-know-about-blood-urine

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

(3/1/24) X-ray on right hip – fracture at the neck of the femur, sclerotic density in the right iliac bone, there is a metallic screw in the right hip, in the left hip there is mild arthritic present

(3/4/24) CT right hip- avulsion of lesser trochanter notes, rod upper shaft of femur

- An X-ray at the pelvis can help show healthcare providers find the cause of any pain, swelling, or deformity in that specific area (Cleveland Clinic, 2022, para. 3). This patient had an X-ray done due to their fall they experienced and presented with an injured right hip.

(3/1/24) CT scan on head due to the fall- prominence of the ventricular system and extra axial CSF spaces, focal area calcification, left posterior location from inflammation disease

- According to South Jersey Radiology (2022), “A head CT scan is a study that creates three-dimensional pictures of your head. A head CT scan will produce images of your skull, brain, eye sockets, and more. These images can diagnose a wide range of medical conditions.” (paras. 2-3). These images can help the healthcare provider visualize potential medical conditions. A CT scan of the head was performed on this patient because she had fallen. They weren’t exactly sure what had happened within the fall, so they wanted to rule out any potential injuries in the head.

(3/5/24) CT abdomen & pelvis

- Lungs: mild bilateral pleural effusion, trace of pericardial effusion

Kidneys: 11mm cyst noted in right kidney

Colon: large mass right side transverse 7cmx4.5cm, malignant, left is dilated

Urinary bladder- distended

- Healthcare providers use CT scans of the abdomen and pelvis to detect and determine causes of unexplained pain of the small bowel, colon, and other internal organs (“Abdominal and Pelvic CT”, 2022). This scan may have been used when the patient was diagnosed with a urinary tract infection to view the bladder but also because the patient had a past colonoscopy on 5/28/19, so they could have been following up with a recent scan.

*CT angiogram of the pelvis may be considered

*Internal/external iliac arteries not well seem with contrast

- Cleveland Clinic (2019), states that a CT angiogram is images taken to view your blood vessels, tissues, and arteries (para. 1). They inject a dye first into your blood vessels then take the pictures that way they can distinguish what they are looking at. They have use this to be able to visualize the internal and external iliac arteries that were not well seen on the regular CT scan.

Diagnostic Imaging Reference (1) (APA):

Cleveland Clinic. (2022, July 18). *Pelvis X-ray: Purpose, Procedure & Risks*. Cleveland Clinic. https://my.clevelandclinic.org/health/diagnostics/23519-pelvis-x-ray

Coronary Computed Tomography Angiogram | Cleveland Clinic. (2019). Cleveland Clinic. https://my.clevelandclinic.org/health/diagnostics/16899-coronary-computed-tomography-angiogram

Radiology (ACR), R. S. of N. A. (RSNA) and A. C. of. (2022). *Computed tomography (CT) - abdomen and pelvis*. Radiologyinfo.org. https://www.radiologyinfo.org/en/info/abdominct

Romanchak, M. (2022, October 3). *What A CT Scan Shows Of The Head & Brain*. SJRA. https://sjra.com/what-a-ct-scan-shows-of-the-head-brain/

Assessment

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

General, Psychosocial/Cultural, and ONE focused assessment specific to the client is required. The student and instructor may complete these assessments together.

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	Patient is A/O x1. She knows what is going on but confused when asking specific questions. Also repeats herself. There is no distress present when observing and she seems comfortable. The patient's overall appearance is well. She is well groomed but does have a bruise and discoloration on her right arm, may be due to her fall. She was in a good mood and a happy person.
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** 14 **Drains present: Y☐ N ☒** **Type:**	Patients skin color olive/tan so was normal but did have some discoloration to the right arm. Appeared to be a bruise, may be from the fall. Skin was warm to touch. There was slight tenting present to the skin when assessing dehydration. The left leg did have a wound that was patched up. Patient also had a generalized rash with a little redness on her buttock area but did have ointment present on the area. There were no drains present. Patient Braden score was 14.

HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	.
CARDIOVASCULAR: **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:** **Neck Vein Distention: Y ☐ N ☐** **Edema Y ☐ N ☐** **Location of Edema:**	.
RESPIRATORY: **Accessory muscle use: Y☐ N ☐** **Breath Sounds: Location, character**	.
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 ☐** **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:**	
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N ☐** **Fall Risk: Y ☒ N☐** pt. had an e-sitter **Fall Score:** high- 93 **Activity/Mobility Status:** **Independent (up ad lib)** ☐ **Needs assistance with equipment** ☐ **Needs support to stand and walk** ☐	.
NEUROLOGICAL: **MAEW: Y ☐ N☐** **PERLA: Y ☐ N☐** **Strength Equal: Y ☐ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	.
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):**	Patient says that she doesn't call many people to cope, she just likes to sit down when things get hard. Developmental level is appropriate for the age of this patient. There is no specific religion this patient describes to be because she is not very religious. Patient lives alone, her husband passed away 2 years ago. She does have 2 sons and has a "daughter" who she helped raised since the girl was 2 years old.

Vital Signs, 1 set (5 points) – HIGHLIGHT ALL ABNORMAL VITAL SIGNS

Time	Pulse	B/P	Resp Rate	Temp	Oxygen

0747	75 bpm	156/68	20	97.9 F	97%

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
1000	numeric	n/a	0	n/a	Pt going on hospice

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
not measuring due to patient being put on hospice	not measuring due to patient being put on hospice

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

Nursing Diagnosis • 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	Rationale • Explain why the nursing diagnosis was chosen	Interventions (2 per dx)	Outcome Goal (1 per dx)	Evaluation • How did the client/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
1. Risk for Infection as evidence	This nursing diagnosis was chosen	**1.**Help the patient wash hands before	**1.** Patient's urine will become yellow and clear	The client and her family were cooperative of the

	by patient having a medical diagnosis of urinary tract infection (Phelps, 2023, p. 363)	because infections are common when someone has a urinary tract infection due to all the bacteria in the area.	and after meals and after using bathroom or bedpan (Phelps, 2023, p. 366). **2.** Suggest increasing the fluid intake of at least 1,000 to 2,000 mL daily (Phelps, 2023).	and be free of signs or symptoms of a UTI by the end of the week.	actions. The family wanted to try to get rid of her UTI and make her comfortable. The patient is progressing with the interventions by the urine becoming less dark.
2.	Impaired Urinary Elimination related bladder distention as evidence by bladder distention shown in the CT scan of the abdomen.	This nursing diagnosis was chosen because the patient could have trouble urinating if the bladder is distended.	**1.** Encourage the patient to void frequently (Bono et al., 2021) **2**.Educate the patient on the importance or urinating and not holding in urine.	**1.** Patient will empty their bladder and will have an output of 800 mL a day.	The patient and family were both understanding of the actions wanting to be done. The family agreed to help remind and assist the patient in trying to void often to reduce the risk of impaired elimination. The patient has agreed to drink more and is making progress with voiding.

Other References (APA):

Bono, M. J., Reygaert, W. C., & Doerr, C. (2021). *Urinary Tract Infection (Nursing)*. PubMed; StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK568701/

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

Concept Map (20 Points):

Subjective Data

- Turning in bed makes pain increase
- Pain level is a 0
- The patient states, “I can’t really remember much. I don’t even remember falling.”
- Patient says, “No, I don’t call anyone, I just sit down and try to not think about it.”

Nursing Diagnosis/Outcomes

- Risk for Infection as evidence by patient having a medical diagnosis of urinary tract infection (Phelps, 2023, p. 363)
  - Patient’s urine will become yellow and clear and be free of signs or symptoms of a UTI by the end of the week.
- Impaired Urinary Elimination related bladder distention as evidence by bladder distention shown in the CT scan of the abdomen
  - Patient will empty their bladder and will have an output of 800 mL a day.

Objective Data

- Patient is well groomed and in no distress
- Has dentures
- Has an e-sitter
- Uses a bed pan
- Has a bruise on her right arm
- Vitals: Pulse 75 bpm, BP 156/68, Resp 20, Temp 97.9 F, O2 Sat 97%
- Patient is confused

Client Information

90-year-old Caucasian female who was medically diagnosed with a urinary tract infection. She came in due to a fall. There is no secondary diagnosis. Patient is has allergies to Lisinopril, Tramadol, and Vicodin. Patient is confused and is being out on hospice

Nursing Interventions

1. Help the patient wash hands before and after meals and after using bathroom or bedpan (Phelps, 2023, p. 366).
2. Suggest increasing the fluid intake of at least 1,000 to 2,000 mL daily (Phelps, 2023).
3. Encourage the patient to void frequently (Bono et al., 2021)
4. .Educate the patient on the importance or urinating and not holding in urine.