N311 Care Plan 3

Lakeview College of Nursing

Hannah Bierman

Demographics (5 points)

Date of Admission 08/01/2020	Patient Initials J.J	Age 78	Gender Female
Race/Ethnicity White	Occupation Retired	Marital Status Single	Allergies NKDA
Code Status Full Code	Height 170 cm	Weight 71 kg	

Medical History (5 Points)

Past Medical History: Chronic Heart Failure and COPD.

Past Surgical History: None reported

Family History: None reported

Social History (tobacco/alcohol/drugs): None reported

Admission Assessment

Chief Complaint (2 points): Pain with urination

History of present Illness (10 points): A 78-year-old women came to the hospital on 08/01/2020 saying that she has pain with urination. Patient states that the pain started a week ago. Pain occurs in her lower abdomen. The pain is only when she urinates. The patient describes the pain as being sharp. The patient has tried taking cranberry pills, but she stated that they have not helped.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Urinary Tract Infection

Secondary Diagnosis (if applicable): Urosepsis

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

Urinary tract infection are bladder infections that readily respond to antibiotics when identified early (Swearingen & D, 2019). Patients that come to clinic usually present with pain and burning on urination, as well as urinary frequency and urgency (Capriotti, 2016). If the infection continue one could have symptoms such as cloudy, strong-smelling urine and hematuria (Capriotti, 2016). If one leaves a UTI untreated it could cause the UTI to spread and can result in pyelonephritis, which is a kidney infection (Capriotti, 2016). UTIs are more common in women than in men. (Capriotti, 2016). It is estimated that approximately 50% of all women will have a UTI sometime throughout their life (Capriotti, 2016). But men can still get UTIs they are just less common in males.

Immunoglobulin A (IgA) is secreted by WBCs in the urinary tract, also prevents adherence of bacteria from the bladder wall (Capriotti, 2016). *Proteus mirabilis,* is a bacterium in the bowel that secretes urease, which can decrease the acidity of one's urine and increase the ability to invade the bladder (Capriotti, 2016). One of the most common nosocomial causes of a women getting a UTI is associated with getting a urinary catheterization (Capriotti, 2016).

The common cause for a man is BPH (Capriotti, 2016). The reason that women are more susceptible to UTIs is when they have bad perineal care, tight restrictive clothing, and use bath products that could be irritating (Capriotti, 2016). The reason that one could get a UTI from having bad perineal care is because there is a lot of bacteria by the vagina and one wants to wipe front to back so they do not carry any bacteria from there rectum to their vagina. Things such as sexual intercourse, the use of contraceptive devices, and spermicides can also increase a woman's risk of UTI in females (Capriotti, 2016). Pregnancy can also increase a women's chances of getting a UTI. Women who are pregnant more at risk especially at the end of the second trimester and at the beginning of third trimester (Capriotti, 2016). When older men get

UTIs they are associated with urinary tract obstruction which is caused by their prostate gland being enlarged (Capriotti, 2016).

How one is diagnosis with a UTI by doing a Urinalysis and urine culture (Capriotti, 2016). A urinalysis is when one uses a dipstick which usually shows some RBCs, positive leukocytes esterase which indicates WBCs, and nitrates which indicates bacteria (Capriotti, 2016). On a microscopic urinalysis, neutrophils, RBCs, and bacteria are present in a clean-catch midstream specimen of urine (Capriotti, 2016). On a urine culture, infection is indicated by the counting the colonies of bacteria that are greater than 10^5/mL (Capriotti, 2016).

There are many complications that can arise from getting a UTI. Urosepsis is a bacterial invasion of the bloodstream, that can be a complication of a UTI in older adults, especially those that have an indwelling urinary catheter (Capriotti, 2016). Patients that have urosepsis are acutely and severely ill with symptoms of fever, chills, confusion, disorientation, and hypotension (Capriotti, 2016).

The usual treatment for a UTI is antibiotics (Capriotti, 2016). There are so many different types antibiotics. To find the specific antibiotic one would us they would do a culture and sensitivity test (Capriotti, 2016). The antibiotics that are more commonly prescribed are Nitrofurantoin and/or Trimethoprim-sulfamethoxazole (Capriotti, 2016). To help with relief from a UTI one is often prescribe with Phenazopyridine to help with the pain (Capriotti, 2016). Some studies have shown that cranberry juice can decrease the risk of a UTI because it lessens the adherence of bacteria to the bladder wall (Capriotti, 2016).

Pathophysiology References (2) (APA):

Capriotti, T. & Frizzell, J.P. (2016).*Pathophysiology:Introductory concepts and clinicalperspectives.*(1sted.).Philadelphia, PA: F.A. Davis Company.

Swearingen, P. L., & D, J. (2019) *All-in-one nursing care planning resource: medical-surgical, pediatric, maternity, and psychiatric-mental health.* Elsevier.

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**		**4.8**	
Hgb	**4.0-6.0**		**11.3**	**She has high hemoglobin due to her COPD exacerbation. ("High Hemoglobin Count Causes")**
Hct	**37-47**		**33**	**Her Hematocrit is low because of her COPD ("Hematocrit")**
Platelets	**150,000-450,000**		**220,000**	
WBC	**4,000-11,000**		**13,000**	**Her white blood cells are high because of her urinary tract infection. The WBCs are trying to fight off the infection. ("High White Blood Cell Count Results and Follow-Up")**
Neutrophils				
Lymphocytes				
Monocytes				
Eosinophils				
Bands				

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-				
K+	**3.5-5.1**		**4.4**	
Cl-	**98-107**		**100**	
CO2				
Glucose	**74-109**		**92**	
BUN	**7-25**		**21**	
Creatinine	**0.7-1.30**		**1.0**	
Albumin	**3.5-5.7**		**3.2**	**Her Albumin is low because of her urinary tract infection. ("Albumin")**
Calcium	**8.6-10.3**		**9**	
Mag				
Phosphate				
Bilirubin				
Alk Phos				

Urinalysis 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

	Range	Admission	Value	
Color & Clarity	**Yellow & clear**		**Slight Amber & Cloudy**	**Cloudy urine is a sign of a Urinary tract infection. ("Urine - Abnormal Color: MedlinePlus Medical Encyclopedia")**
pH	**5-7**		**5.6**	
Specific Gravity	**1.010-1.030**		**1.039**	**Her Specific Gravity is high because she is not getting enough fluids. (Nall)**
Glucose	**Negative**		**Negative**	
Protein	**<100**		**2**	
Ketones	**Negative**		**Negative**	
WBC	**0-5**		**10**	**Her White Blood Cell count in her urine is high because she has a Urinary Tract infection and the WBC are trying to fight it off. (Watson)**
RBC	**4**		**4-6**	
Leukoesterase	**Negative**		**Positive**	**Her Leukoesterase is positive which indicates a UTI. (Watson)**

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				

Blood Culture				
Sputum Culture				
Stool Culture				

Lab Correlations Reference (APA):

"Urine Tests: Normal Values - Resources." ***Merck Manuals Professional Edition*****,** **www.merckmanuals.com/professional/resources/normal-laboratory-values/urine-tests-normal-values.**

"Urinalysis - Understand the Test & Your Results." ***Labtestsonline.Org*****, 25 May 2016,** **http://labtestsonline.org/tests/urinalysis.**

"High Hemoglobin Count Causes." ***Mayo Clinic*****, 2019,** **www.mayoclinic.org/symptoms/high-hemoglobin-count/basics/causes/sym-20050862.**

"Hematocrit." ***Labtestsonline.Org*****,** **http://labtestsonline.org/tests/hematocrit.**

"High White Blood Cell Count Results and Follow-Up." ***Cleveland Clinic*****,** **http://my.clevelandclinic.org/health/diagnostics/17704-high-white-blood-cell-count/results-and-follow-up. Accessed 29 Mar. 2020.**

"Albumin." ***Labtestsonline.Org*****, 8 Apr. 2016, http://labtestsonline.org/tests/albumin.**

"Urine - Abnormal Color: MedlinePlus Medical Encyclopedia." ***Medlineplus.Gov*****, 2016, https://medlineplus.gov/ency/article/003139.htm.**

Nall, Rachel. "Urine Specific Gravity Test." ***Healthline*****, Healthline Media, 7 Aug. 2018, www.healthline.com/health/urine-specific-gravity.**

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Watson, Stephanie. "What Causes Leukocytes in Urine?" ***WebMD*****, WebMD, 27 Aug. 2019, www.webmd.com/a-to-z-guides/leukocytes-urine#1.**

"Leukocyte Esterase Urine Test: MedlinePlus Medical Encyclopedia." ***Medlineplus.Gov*****, 2016, https://medlineplus.gov/ency/article/003584.htm.**

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

Chest X-ray: The lungs are well aerated. There is no evidence of any focal area of consolidation. A faint rounded density is seen in the base of the left lower hemithorax probably representing a nipple shadow. The hilar and pulmonary vasculature is dilated with long-standing mild chronic obstructive pulmonary disease. The heart size is enlarged consistent with hypertrophy of the left ventricle. The costophrenic angles are clear.

Left hip and femur: AP view of the hip is reviewed. Only 1 limited view is obtained. This is a poor-quality x-ray with a lot of soft tissue shadow. Significant for basicervical-type femoral neck fracture. Lesser trochanter is intact. This is a high intertrochanteric fracture/ basicervical.

<u>Left Elbow</u>: No fracture apparent but evidence of mild soft tissue consistent with muscle contusion.

Current Medications (10 points, 2 points per completed med)
5 <u>different</u> medications must be completed

Medications (5 required)

Brand/ Generic	**Glyburide/DiaBeta**	**Acetaminophen/ Tylenol**	**Levofloxacin/ Levaquin**	**Lorazepam/ Ativan**	**Lactated Ringer's/ Sodium Chloride**
Dose	**25 mg**	**325 mg**	**250 mg**	**2 mg**	**1000 mL**
Frequency	**Daily with breakfast**	**Every 4 hours PRN**	**Every 12 hours**	**Every 6 hours PRN**	**30 mL/hour**
Route	**PO**	**PO**	**IV Bolus**	**PO**	**IV**
Classification	**Antidiabetic**	**Antipyretic**	**Antibiotic**	**Anxiolytic**	**Nonpyrogenic Solution**
Mechanism of Action	**Stimulates insulin release from beta cells in the pancreas. Increases the peripheral tissue sensitivity to insulin either by enhancing insulin binding to cellular receptors.**	**Inhibits the enzyme cyclooxygenase, blocking prostaglandin production and interfering with pain impulse generation in the peripheral nervous system.**	**Interferes with bacterial cell replication by inhibiting the bacterial enzyme DNA gyrase, which is essential for repair and replicate bacterial DNA.**	**May potential effect of gamma-aminobutyric acid (GABA) and other inhibitory neurotransmitters by binding to specific benzodiazepine receptors in cortical and limbic areas of CNS. It hyperpolarizes neuronal cells, thereby interfering with their ability to generate seizures.**	**The metabolism of glucose leads to the production of pyruvate into cellular respiration. The increases production of lactate, in turn, acts as a buffer system as it takes up the H+ forming lactic acid. (Singh and Davis)**
Reason Client Taking	**Diabetes**	**For fever > 37.7 degrees Celsius**	**Urinary tract infection**	**Agitation and restlessness**	**For fluid and electrolyte loss.**

Contraindications (2)	**1.Type 1 diabetes mellitus 2.Diabetic Ketoacidosis**	**1.Hypersensitivity to Acetaminophen 2.Severe hepatic impairment**	**1.Myasthemia gravis 2.Hypersensitivity to levofloxacin.**	**1.Acute angle-closure glaucoma. 2. Intra-cranial delivery.**	**1. severe metabolic acidosis and alkalosis 2. Hypersensitivity to corn product ("Lactated Ringer's (Lactated Ringer's Injection): Uses, Dosage, Side Effects, Interactions, Warning")**
Side Effects/ Adverse Reactions (2)	**1.Arrhythmias 2.Angioedema**	**1.Hypokalemia 2.Hypotension**	**1. Seizures 2.Increased intracranial pressure.**	**1.Respiratory Depression 2. Coma**	**1. Chest pain 2. Swelling or edema (Singh and Davis)**

(2020 Nurse's drug handbook., 2020)

Medications Reference (APA):

2020 Nurse's drug handbook. **(2020). Jones & Bartlett Learning.**

"Lactated Ringers - FDA Prescribing Information, Side Effects and Uses." ***Drugs.Com*****,** **www.drugs.com/pro/lactated-ringers.html#s-34070-3. Accessed 29 Mar. 2020.**

Singh, Shashank, and David Davis. "Ringer's Lactate." ***Nih.Gov*****, StatPearls Publishing, 27 Oct. 2018, www.ncbi.nlm.nih.gov/books/NBK500033/.**

"Lactated Ringer's (Lactated Ringer's Injection): Uses, Dosage, Side Effects, Interactions, Warning." ***RxList*****, www.rxlist.com/lactated-ringers-drug.htm#clinpharm. Accessed 29 Mar. 2020.**

Assessment

Physical Exam (18 points)

GENERAL:	**A&O: x2 When first see but throughout the**

Alertness: **Orientation:** **Distress: Yes, appears to have shortness of breath.** **Overall appearance: Good, well groomed.**	**patients stay her memory worsened.**
INTEGUMENTARY: **Skin color: Normal for race.** **Character: Clammy** **Temperature: Cool** **Turgor: Not assessed** **Rashes: N/A** **Bruises: N/A** **Wounds: Stage 2 pressure ulcer to the coccyx.** **Braden Score: 13- moderate risk** **Drains present: Y☐ N ☒** **Type:**	
HEENT: **Head/Neck: Normal, Trachea symmetric.** **Ears: Normal, symmetric.** **Eyes: pupils were equal round and reactive.** **Nose: Good no deviation of polyps.** **Teeth: Good no tooth decay.**	.
CARDIOVASCULAR: **Heart sounds: Normal only heard S1 and S2 heart sounds.** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable): Regular** **Peripheral Pulses: Strong and equal** **Capillary refill: Good less than 2 seconds.** **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☐ N ☒** **Location of Edema:**	.
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	**Patient is on oxygen, when listening heard coarse crackles in her lungs. Patient is experiencing shortness of breath. Keep titrate at 90%.**
GASTROINTESTINAL: **Diet at home: Normal** **Current Diet: 2 g sodium diet** **Height: 170cm** **Weight: 71kg** **Auscultation Bowel sounds: Active in all**	.

4 quadrants. **Last BM: Yesterday** **Palpation: Pain, Mass etc.:** **Inspection: Abdomen was soft, non-tender, no masses were palpated.** **Distention: N/A** **Incisions: N/A** **Scars: N/A** **Drains: N/A** **Wounds: N/A** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	
GENITOURINARY: **Color: Slight Amber** **Character: Cloudy** **Quantity of urine: little output** **Pain with urination: Y ☒ N ☐** **Dialysis: Y ☐ N ☒** **Inspection of genitals: Not assessed.** **Catheter: Y ☒ N ☐** **Type: Foley Catheter** **Size: 14 FR**	
MUSCULOSKELETAL: **Neurovascular status: Good** **ROM: Limited range of motion to bilateral lower extremities. Upper extremities are intact.** **Supportive devices: Buck Traction** **Strength: Upper extremities are good, Lower extremities were unable to assess** **ADL Assistance: Y☒ N ☐** **Fall Risk: Y ☒ N☐** **Fall Score: 65** **Activity/Mobility Status: Bedrest** **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: A&O x2** **Mental Status: Some confusion** **Speech: Clear, could understand everything that the client was saying.** **Sensory: None reported** **LOC: N/A**	
PSYCHOSOCIAL/CULTURAL: **Coping method(s): None reported** **Developmental level: Normal for age.** **Religion & what it means to pt.: Catholic** **Personal/Family Data (Think about home environment, family structure, and available family support):**	**A friend brought in her medicine and agreed to help her when she gets released from the hospital.**

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0500	96 BPM	136/76 mmHg	24 Breaths/ per minutes	37.4 Degrees Celsius	91% O_2 sat

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0500	0-10 Numeric pain scale	Lower abdomen	4	Stabbing	Check capillary refill.

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
2360 mL	100 mL

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	• Explain why the nursing		• How did the patient/family respond to the nurse's actions?

evidenced by" components	diagnosis was chosen		• Client response, status of goals and outcomes, modifications to plan.
1. Acute Pain related to Urinary tract infection as evidence by having to take acetaminophen for pain.	**She was having pain with her UTI because when asked she rated her pain 4 on a scale from 0-10. She also stated that the pain was stabbing. So, she takes acetaminophen to help with the pain.**	**1.Assess for and document complaints of pain in the suprapubic or urethral area. On a scale from 0-10.** **2.If the Patient is losing urine around catheter and has a distended bladder, check the catheter and drainage tubing for evidence of obstruction.**	**To make sure that the client is not in any pain and if so, find out the location of the pain to see what was causing her pain.**
2. Potential for dehydration related to UTI as evidenced by the specific gravity in her urinalysis being too high.	**She could have Dehydration because of her UTI and her not being able to pee.**	**1. Notify the health care provider if output exceeds 200 mL/hr or 2 L over an 8-hr period.** **2.Diarrhea, colic, irritability, nausea, muscle cramps, weakness, irregular apical or radial pulses.**	**To make sure that the patient does not get dehydrated by checking her bag to see how much see has voided. But also keeping track of how much she has drank or how much fluids she has got from her IV.**

Other References (APA):

Swearingen, P. L., & D, J. (2019) ***All-in-one nursing care planning resource: medical-surgical, pediatric, maternity, and psychiatric-mental health.*** **Elsevier.**

Concept Map (20 Points):

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Subjective Data

The patient says that she has pain with urination that started about a week ago. She says that she only has pain when she urinates. The patient states that the pain is sharp. She stated that she had tried cranberry pills to help but they had not worked.

Nursing Diagnosis/Outcomes

1. Acute Pain related to Urinary tract infection as evidence by having to take acetaminophen for pain.
    a. Outcomes: To make sure that the client is not in any pain and if so, find out the location of the pain to see what was causing her pain.
2. Potential for dehydration related to UTI as evidenced by the specific gravity in her urinalysis being too high.
    a. Outcomes: To make sure that the patient does not get dehydrated by checking her bag to see how much see has voided. But also keeping track of how much she has drank or how much fluids she has got from her IV.

Objective Data

The patient's chief complaint was pain with urination. The patient primary diagnosis was UTI and the secondary was Urosepsis.
The patient's vitals were:
Pulse: 98 BPM (which is within normal range)
BP: 136/76 mmHg (the top number is slightly high, and the bottom number is slightly low.)
RR: 24 (which is slightly high)
Temperature: 37.4 degrees Celsius
SpO2: 91% (which is low)

Patient Information

A 78-year-old female with a history of COPD and CHF. Past surgical, Family History, and social history were not reported for this patient.

Nursing Interventions

1. Assess for and document complaints of pain in the suprapubic or urethral area. On a scale from 0-10. If the Patient is losing urine around catheter and has a distended bladder, check the catheter and drainage tubing for evidence of obstruction.
2. Notify the health care provider if output exceeds 200 mL/hr or 2 L over an 8-hr period. Diarrhea, colic, irritability, nausea, muscle cramps, weakness, irregular apical or radial pulses.

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