

### Medications

Aspirin chewable tablet (Acetylsalicylic acid, ASA)  
 Pharmacological Classification: Salicylate (Jones & Bartlett Learning, 2022).  
 Therapeutic Classification: NSAID (Jones & Bartlett Learning, 2022).  
 Reason for client taking: Relieve pts mild back pain.  
 Nursing interventions: Monitor salicylate level in patients receiving long term therapy. Teach patient about tinnitus and to notify provider if starts to develop tinnitus (Jones & Bartlett Learning, 2022).  
 Atorvastatin (Lipitor)  
 Pharmacological Classification: HMG-CoA reductase inhibitor (Jones & Bartlett Learning, 2022).  
 Therapeutic Classification: Antihyperlipidemic (Jones & Bartlett Learning, 2022).  
 Reason for client taking: Lower cholesterol.  
 Nursing interventions: Monitor diabetic patient's blood glucose levels. Expect liver functions to be performed before atorvastatin therapy starts (Jones & Bartlett Learning, 2022).  
 Ceftriaxone (Rocephin)  
 Pharmacological Classification: Third generation cephalosporin (Jones & Bartlett Learning, 2022).  
 Therapeutic Classification: Antibiotic (Jones & Bartlett Learning, 2022).  
 Reason for client taking: Treat urinary tract infection.  
 Nursing interventions: Monitor BUN and creatinine levels and monitor fluid intake and output (Jones & Bartlett Learning, 2022).

### Demographic Data

**Date of Admission:** 2/11/2023  
**Admission Diagnosis/Chief Complaint:** Generalized weakness  
**Age:** 90  
**Gender:** Female  
**Race/Ethnicity:** White or Caucasian  
**Allergies:** Fenofibrate, Lovastatin, and Sulfa antibiotics  
**Code Status:** Full code  
**Height in cm:** 157.5 cm  
**Weight in kg:** 62.6 kg  
**Psychosocial Developmental Stage:** Integrity vs despair  
**Cognitive Developmental Stage:** Formal operational stage  
**Braden Score:** 18  
**Morse Fall Score:** 75  
**Infection Control Precautions:** Standard

### Pathophysiology

#### Disease process:

An infection in the urinary system is referred to as a urinary tract infection (UTI). The kidneys, ureters, bladder, and urethra are components of the urinary system. Most infections affect the bladder and urethra, which are parts of the lower urinary system. The invasion of germs, typically bacteria, into the urethra and bladder results in a urinary tract infection (Capriotti, 2020). Your body may react in an inflammatory manner. As a result, giving rise to UTI symptoms. Women are more likely to develop a UTI due to women's anatomical structure. Women have a much shorter urethra than men, which shortens the distance bacteria must travel to reach the bladder (Phelps, 2020).

#### S/S of disease:

A urinary tract infection does not always cause symptoms, but there are a few symptoms that a person can develop. The three most common symptoms of a urinary tract infection include a burning sensation during urination, persistent urge to urinate, and urine that is strongly smelling, cloudy, or bloody (Phelps, 2020). More specific symptoms could appear depending on where the infection occurs in the urinary tract system. The most common indications and symptoms of kidney damage include back or side discomfort, high fever, trembling, chills, nausea, and vomiting. You are more prone to have lower belly discomfort, pelvic pressure, frequent and painful urination, and blood in the urine when your bladder is affected. When the UTI affects the urethra, it causes burning when urinating and discharge. My patient had pain and a burning sensation while urinating.

#### Method of Diagnosis:

Doctors typically diagnose a urinary tract infection by ordering a urine sample. The urine will be examined at a lab to look for bacteria, red blood cells, or white blood cells (Capriotti, 2020). A high white blood count found in the urine can indicate an infection. The physician was able to diagnose my patient with a urinary tract infection based on her WBC count and discomfort while urinating.

#### Treatment of disease:

Antibiotics are the first line of defense against urinary tract infections (Capriotti, 2020). Your health and the type of germs found in your urine will influence what medication is used and how long you must take it. Frequently, UTI symptoms go away a few days after starting medication. However, the length of your antibiotic treatment may be a week or longer. Take the medication exactly as directed to ensure that the infection is gone. My patient was being treated with intravenous ceftriaxone.

### Lab Values/Diagnostics

Sodium 126 mmol/L Normal: 136-145 mmol/L  
 Reason for abnormal: Possible dehydration and age (Jones & Bartlett Learning, 2022).  
 Chloride 92 mmol/L Normal: 98- 107 mmol/L  
 Reason for abnormal: Due to pt having hypertension (Jones & Bartlett Learning, 2022).  
 Glucose 224 mg/ dL Normal: 70- 99 mg/ dL  
 Reason for abnormal: Due to patient being diabetic (Jones & Bartlett Learning, 2022).  
 MPV 6.9 FL Normal: 9.7- 12.4 FL  
 Reason for abnormal: Due to UTI (Jones & Bartlett Learning, 2022).  
 Neutrophils 79% Normal: 47.0- 73.0%  
 Reason for abnormal: Due to UTI (Jones & Bartlett Learning, 2022).  
 Lymphocytes 9.6% Normal: 18.0- 42.0%  
 Reason for abnormal: Due to UTI (Jones & Bartlett Learning, 2022).  
 Absolute Neutrophils 7.80 Normal: 1.60- 7.70  
 Reason for abnormal: Due to UTI (Jones & Bartlett Learning, 2022).  
 Absolute Lymphocytes: 1.00 Normal 1.30- 3.20  
 Reason for abnormal: Due to UTI (Jones & Bartlett Learning, 2022).

### Admission History

Pt is a 90-year-old female who came into the emergency room on 2/11/2023 with back pain. Pt reports that back pain has been going on for about a week and describes the pain as stabbing. She claimed that motion, such as getting out of bed, aggravates the discomfort. Pt reports that she has no other symptoms other than back pain. Lying in bed relieves the pain, and she takes Tylenol at home. Pt reports the pain at a ten out of ten when walking around and zero out of ten while lying down. She has been treated for back pain before now.

### Medical History

**Previous Medical History:** Diabetes mellitus, hypertension, mitral incompetence, seborrheic dermatitis (10/3/2016), and seborrheic keratosis (6/8/2016)

**Prior Hospitalizations:** 12/11/2021- Acute respiratory failure with hypoxia and hypercapnia. 4/09/2021- Constipation. 2/21/2021- NSTEMI (non-st elevated myocardial infarction)

**Previous Surgical History:** Cholecystectomy, hysterectomy, and cardiac catheterization (2/21/2021)

**Social History:** Reports that she has never smoked. She has never used smokeless tobacco. She reports that she does not drink alcohol and does not use drugs.

### Active Orders

Diet and nutrition- Diet CHO consistent low calorie. Reason: pt is diabetic.

Consult- consult for diet and nutrition evaluation. Reason: pt is diabetic.

LAB- Basic metabolic panel with calcium total, comprehensive metabolic panel, and complete blood count with diff. Reason: Routine, possible electrolyte imbalances and risk for infection.

Imaging- Adult trans thoracic echo 2D complete. Reason: dyspnea

ECG- EKG12 Lead. Reason: reassess EKG

Therapy- OT and PT evaluate and treat. Reason: generalized weakness

Daily weight- Reason: due to UTI and possible dehydration

Insert/ maintain peripheral IV- Reason: Receive fluids (0.9 Normal saline)

Telemetry monitoring- Reason: watch for signs of bradycardia.

Notify physician- Reason: check critical glucose levels and ventricle arrhythmias/ symptomatic bradycardia.

Perform POC blood glucose 4x daily, before meals and at bedtime. Reason: pt is diabetic

Strict intake and output- Reason: due to UTI and possible dehydration

Up as tolerated- Reason: pt is normally up and independent at home.

Vital signs per unit- Reason: monitoring pt status.

**Physical Exam/Assessment**

**General:** Patient is alert and oriented to person, place, and time. Patient is in no acute distress and well-groomed.

**Integument:** 20 G in left AC, clean, dry, and intact. Skin turgor is normal mobility. Skin is normal for ethnicity, warm, and dry. Capillary refill is less than 3 seconds in fingers and toes bilaterally.

**HEENT:** Head and neck are symmetrical, trachea is midline without deviation, thyroid is not palpable, no noted nodules. Bilateral carotid pulses are palpable and 2+. Bilateral sclera white, bilateral cornea clear, bilateral conjunctiva pink, no visible drainage from eyes. Bilateral lids are moist and pink without lesions or discharge noted. PERRLA bilaterally. **EOMs not intact.** Bilateral auricles no visible or palpable deformities, lumps, or lesions. Septum is midline, turbinates are moist and pink bilaterally and no visible bleeding or polyps. Bilateral frontal and maxillary sinuses are nontender to palpation. Dentition is good, oral mucosa overall is moist and pink without lesions noted.

**Cardiovascular:** Clear S1 and S2 without murmurs, gallops, or rubs. PMI palpable at fifth intercostal space at MCL. Normal rate and rhythm.

**Respiratory:** Normal rhythm rate and pattern of respirations, respirations symmetrical, no respiratory distress. No wheeze, crackles, rhonchi noted.

**Genitourinary:** **Urine is yellow. Pt complains of mild pain/ burning when voiding.**

**Gastrointestinal:** Abdomen is nondistended, soft, and nontender to palpation. Bowel sounds normoactive in all four quadrants. **Pt was unsure of last bowel movement.**

**Musculoskeletal:** All extremities have full ROM. Hand grips and pedal pushes and pulls demonstrate normal and equal strength for patient's baseline. Patient ambulates independently to the bathroom, **reports pain upon ambulation.**

**Neurological:** Patient is calm, cooperative, and pleasant. Patient has been resting. Patient is oriented to person, place, and time. **Pt is confused of the situation.** Rombergs test was not preformed.

**Most recent VS (include date/time and highlight if abnormal):**

**Time:** 1500 **Temp:** 97.7 degrees Fahrenheit **Heart Rate:** 69 **Respiratory Rate:** 20 **Blood Pressure:** **140/71** **O2%:** **94%** on room air **Pain:** 0

**Pain and pain scale used:** Patients rates her pain zero out of ten on the numeric scale.

<p align="center"><b>Nursing Diagnosis 1</b></p> <p>Risk for acute pain related to inflammation and infection of the urinary tract as evidenced by burning on urination.</p>	<p align="center"><b>Nursing Diagnosis 2</b></p> <p>Risk for impaired urinary elimination related to urinary retention as evidenced by dysuria.</p>	<p align="center"><b>Nursing Diagnosis 3</b></p> <p>Risk for fatigue related to metabolic energy production as evidenced by generalized weakness and blood sugar level of 224 mg/ dL.</p>
<p align="center"><b>Rationale</b></p> <p>Pt is experiencing pain and burning while urinating. Pt reports experiencing generalized weakness</p>	<p align="center"><b>Rationale</b></p> <p>Pt is experiencing pain and discomfort while urinating</p>	<p align="center"><b>Rationale</b></p> <p>Pt reports experiencing generalized weakness Pt is experiencing pain and discomfort while urinating.</p>
<p align="center"><b>Interventions</b></p> <p><b>Intervention 1:</b> Administer antibiotics and stress the importance of finishing the whole bottle (Phelps, 2020).  <b>Intervention 2:</b> Encourage the patient to void frequently (Phelps, 2020).</p>	<p align="center"><b>Interventions</b></p> <p><b>Intervention 1:</b> Instruct pt to wipe front to back (Phelps, 2020).  <b>Intervention 2:</b> Encourage to patient to drink plenty of fluids (Phelps, 2020).</p>	<p align="center"><b>Interventions</b></p> <p><b>Intervention 1:</b> Encourage progressive activity through selfcare and exercise as tolerated (Phelps, 2020).  <b>Intervention 2:</b> Refer the patient to physiotherapy/ occupational therapy team as required (Phelps, 2020).</p>
<p align="center"><b>Evaluation of Interventions</b></p> <p>The pt will finish the whole round of antibiotics and report absence of pain while voiding.</p>	<p align="center"><b>Evaluation of Interventions</b></p> <p>The patient will increase the amount of fluids she is consuming and will wipe front to back to prevent UTIs.</p>	<p align="center"><b>Evaluation of Interventions</b></p> <p>The patient will verbalize ease of fatigue and demonstrate active participation in necessary and desired activities.</p>

**Lab Values/Diagnostics Continued:****XR Sacrum and coccyx 2/12/2023:**

No definite sacrococcygeal fracture or destruction is demonstrated. Degenerative changes at the left hip, lower lumbar spine, and SI joints.

**XR Chest two views 2/12/2023:**

Bilateral pulmonary infiltrates seen on 12/12/2021 exam has resolved. No new infiltrates or consolidation is identified. The heart size and pulmonary vascularities are the normal limits. No acute cardiopulmonary abnormality is demonstrated.

**CT Abdomen pelvis with contrast (2/11/2023)**

1. Gallbladder not seen. Correlate with history.
2. Chronic diverticulosis.

**Medications**

Enoxaparin (Lovenox)

Pharmacological Classification: Low molecular weight heparin (Jones & Bartlett Learning, 2022).

Therapeutic Classification: Anticoagulant (Jones & Bartlett Learning, 2022).

Reason for client taking: Prevent DVT

Nursing interventions: Prevent bleeding and expect to give with aspirin to patient with STEMI (Jones & Bartlett Learning, 2022).

Escitalopram (Lexapro)

Pharmacological Classification: Selective serotonin reuptake inhibitor (Jones & Bartlett Learning, 2022).

Therapeutic Classification: Antidepressant (Jones & Bartlett Learning, 2022).

Reason for client taking: Treat depression.

Nursing interventions: Monitor elderly patients for hypo- osmolarity of serum and urine. Monitor patient for bleeding (Jones & Bartlett Learning, 2022).

### Furosemide (Lasix)

Pharmacological Classification: Loop diuretic (Jones & Bartlett Learning, 2022).

Therapeutic Classification: Antihypertensive, diuretic (Jones & Bartlett Learning, 2022).

Reason for client taking: Reduce edema caused by heart failure.

Nursing interventions: Obtain patients weight before and periodically during furosemide therapy to monitor fluid loss. Be aware that elderly pts are more susceptible to hypotensive and electrolyte altering effects (Jones & Bartlett Learning, 2022).

### Insulin lispro (Humalog)

Pharmacological Classification: Human insulin (Jones & Bartlett Learning, 2022).

Therapeutic Classification: Antidiabetic (Jones & Bartlett Learning, 2022).

Reason for client taking: Improve glycemic control in patients with diabetes mellitus.

Nursing interventions: Make sure to rotate injection sites and roll the vial gently between hands before giving to ensure uniform dispersion of insulin (Jones & Bartlett Learning, 2022).

### Losartan (Cozaar)

Pharmacological Classification: Angiotensin II receptor blocker (Jones & Bartlett Learning, 2022).

Therapeutic Classification: Antihypertensive (Jones & Bartlett Learning, 2022).

Reason for client taking: Manage hypertension.

Nursing interventions: Monitor blood pressure regularly and to periodically monitor pts serum potassium levels (Jones & Bartlett Learning, 2022).

### Metoprolol Succinate XL (Toprol- XL)

Pharmacological Classification: Beta- adrenergic blocker (Jones & Bartlett Learning, 2022).

Therapeutic Classification: Antianginal, antihypertensive (Jones & Bartlett Learning, 2022).

Reason for client taking: Manage hypertension.

Nursing interventions: Use cautiously in pts with hypertension who have heart failure. Monitor pt for evidence of worsening heart failure during dosage increase (Jones & Bartlett Learning, 2022).

### Miconazole 2% Powder

Pharmacological Classification: Antifungal (Jones & Bartlett Learning, 2022).

Therapeutic Classification: Antifungal (Jones & Bartlett Learning, 2022).

Reason for client taking: treat fungal infections

Nursing interventions: Advise patient to report any increased local sensitivity to the drug. Instruct patient about proper hygiene such as washing hands before and after application (Jones & Bartlett Learning, 2022).

Spiroinolactone (Aldactone)

Pharmacological Classification: Potassium- sparing diuretic (Jones & Bartlett Learning, 2022).

Therapeutic Classification: Diuretic (Jones & Bartlett Learning, 2022).

Reason for client taking: Heart failure.

Nursing interventions: Evaluate spiroinolactone's effectiveness by assessing blood pressure. Instruct patient to take spiroinolactone with or without food but to stay consistent (Jones & Bartlett Learning, 2022).

### **References (3) (APA):**

Capriotti, T. (2020). *Davis Advantage for Pathophysiology: Introductory Concepts and Clinical Perspectives*. 2nd ed., F.A. Davis, 2020.

Jones & Bartlett Learning, LLC. (2022). *2022 Nurse's Drug Handbook* (20th ed.).

Phelps, L. L. (2020). *In Spark's & Taylor's Nursing Diagnosis Reference Manual 11th ed. Essay*. Wolters Kluwer.