N311 Care Plan #2

Lakeview College of Nursing

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Demographics (5 points)

Date of Admission 08/01/XX	**Patient Initials** J.J.	**Age** 78	**Gender** Female
Race/Ethnicity Caucasian	**Occupation** Retired	**Marital Status** Single	**Allergies** NKA
Code Status DNR	**Height** 5'7"	**Weight** 156 lb.	

Medical History (5 Points)

Past Medical History: Congestive heart failure and diabetes

Past Surgical History: N/A

Family History: Brother deceased from congestive heart failure at the age of 70. Sister deceased from COPD at the age of 62. Both parents had history of congestive heart failure and diabetes but "died from old age", per pt.

Social History (tobacco/alcohol/drugs): Pt reports being a previous smoker in her late teenage years. Pt has no history of alcohol or drug use.

Admission Assessment

Chief Complaint (2 points): Suprapubic pain and dysuria

History of present Illness (10 points):Onset: On August 1st, a 78 y/o white, single, female, was admitted to Carle hospital at 0500 for urosepsis. **Location**: Pt is experiencing suprapubic pain in her lower abdomen and is having painful urination. **Duration:** about a week ago, on July 25th, the pt started noticing a decrease in her urine output, was having difficulty breathing, and painful urination. Pt stated, "over the last two or three days I began to urinate more frequently, and my pain was getting worse". **Characteristics:** The pt stated "when I use the bathroom it hurts so I can't go very much and when I do go, I feel a burning sensation". Pt rated her pain a 9 on a scale of one to ten. Pt also stated, "I have been having a difficult time breathing and have had some

pain in my lower stomach area". **Associated Manifestations:** Urinating too slowly seems to make the pain and burning sensation worse. **Relieving factors:** Reports drinking cranberry juice and taking AZO urinary pain relief maximum strength medication over the counter. **Treatment:** Pt has not had previous treatment.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Urosepsis

Secondary Diagnosis (if applicable): Diabetes

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

A urinary tract infection is an infection that can occur anywhere inside of your urinary tract system such as your kidneys, ureters, bladder, and urethra (Mayo Clinic, 2019). Urinary tract infections usually occur when bacteria get into the urinary tract from the urethra (Mayo Clinic, 2019). Afterwards the bacteria begin to multiply inside of the bladder (Mayo Clinic, 2019). Even though one of the purposes of the urinary system is to keep out microscopic invaders, these shields sometimes fail (Mayo Clinic, 2019). So, when that happens bacteria takes over and grows into a full-blown infection inside of the urinary tract (Mayo Clinic, 2019). Urinary tract infections are most seen in women and most often affect the bladder and urethra (Mayo Clinic, 2019). When you get an infection inside of your bladder it is most likely caused by E. coli, a type of bacteria that is typically found in your gastrointestinal tract. Sexual intercourse may also lead to a urinary tract infection inside of the bladder (Mayo Clinic, 2019). Although you don't have to be sexually active to develop it (Mayo Clinic, 2019). All women are at risk for getting an infection in their bladder at least once in their lifetime and that is because women have a short distance from the urethra to the anus and the urethral opening to the bladder (Mayo Clinic, 2019). When you get an infection inside of your urethra it is because the bacteria

from your gastrointestinal tract spread from the anus to the urethra (Mayo Clinic, 2019). Also, because the urethra in a female is located closely to the vagina sexually transmitted infections like herpes, chlamydia, gonorrhea, and mycoplasma can cause urethritis (Mayo Clinic, 2019). As for my patient her culture came back positive for E. coli indicating that she had an infection inside of her bladder.

Common signs and symptoms of a urinary tract infection include the urge to constantly urinate, a burning sensation when urinating, urinating often in small amounts at a time, cloudy urine, could appear red, brink pink, or cola-colored indicating blood in the urine, strong odor, pain during sex, and pelvic pain in women (Mayo Clinic, 2019). If the infection spreads past the bladder it will reach the upper part of the urinary tract like the kidneys and ureters (McIntosh, 2020). When the infection reaches the upper urinary tract, it is typical to see a complication known as urosepsis (McIntosh, 2020). Patients who have urosepsis tend to have more serious symptoms and if you experience any of the symptoms you should seek medical advice immediately (McIntosh, 2020). Common signs and symptoms for urosepsis include suprapubic pain, trouble breathing or rapid breathing, extreme fatigue, nausea, vomiting, confusion, extreme anxiety, weak pulse, change in heart rate, sweating, and high fever or low body temperature (Mcintosh, 2020). My patient came into the emergency room with a chief complaint of suprapubic pain and dysuria. She was having many typical signs and symptoms such as burning sensation when urinating, cloudy urine, high fever, sweating, low abdomen pain, and trouble breathing. After running some cultures and lab work it appeared, she was having a complication of urosepsis. From there she was admitted into the hospital where we would try to get her pain level and signs and symptoms under control.

Risk factors for urinary tract infections specific to women could include certain types of birth control, menopause, sexual activity, and the fact that women have a shorter urethra than a man (Mayo Clinic, 2019). Other risk factors for a urinary tract infection that can be for both women and men could include urinary tract abnormalities, blockages in the urinary tract, suppressed immune system, having a catheter, and recent urinary procedure (Mayo Clinic, 2019). Risk factors for urosepsis are a little different and include diabetes, being over the age of 65, compromised immune system, immunosuppression from certain drugs, organ transplants, or chemotherapy, corticosteroid treatment, history of urinary conditions, and catheter use (Mcintosh, 2020). My patient was over the age of 65 and had a past medical history of congestive heart failure and diabetes. Therefore, my patient has a higher risk for developing urosepsis from a urinary tract infection if it is not treated right away.

You can help to prevent urinary tract infections by drinking plenty of fluids especially water, drinking cranberry juice, wiping from front to back, emptying your bladder from after sexual intercourse, avoiding irritating feminine products, and by changing your birth control method (Mayo Clinic, 2019). Treatment usually involves antibiotics depending on your health condition and the type of bacteria found in your urine (Mayo Clinic, 2019). Medications commonly prescribed for a simple urinary tract infection include trimethoprim/sulfamethoxazole, fosfomycin, nitrofurantoin, cephalexin, and ceftriaxone (Mayo Clinic, 2019). For more severe cases your doctor may recommend intravenous antibiotics in a hospital (Mayo Clinic, 2019). As for my patient she had a severe case and was receiving intravenous antibiotics. She was receiving levofloxacin through an IV bolus to help treat her urinary tract infection. Many people believe there is an active ingredient in cranberry juice that can prevent adherence of bacteria to the bladder wall, typically the bacteria known as E. coli. Therefore, with her culture showing a

presence of E. coli she was advised to also start a nonpharmaceutical treatment such as drinking cranberry juice to help as well as her antibiotic which she would continue for at least the next seven days.

Pathophysiology References (2) (APA):

Mayo Clinic. (2019, January 30). *Urinary tract infection (UTI) - Diagnosis and treatment - Mayo Clinic.* https://www.mayoclinic.org/diseases-conditions/urinary-tract-infection/diagnosis-treatment/drc-20353453

McIntosh, J. (2020, March 15). *What to know about urinary tract infections.* https://www.medicalnewstoday.com/articles/189953#causes

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	4.0-4.9 *10^6/uL*	4.8		
Hgb	12.0-16.0 *g/dL*	11.3		Hgb slightly low due to experiencing blood loss in the urinary tract (Capriotti & Frizzell, 2016).
Hct	37.0-48.0%	33%		These values are consistent with a large number of white blood cells due to an infection (Capriotti & Frizzell, 2016).
Platelets	135,000-317,000 per uL	220,000mm^3		
WBC	5,000-10,000 per uL	13,000mm^3		White cells are elevated due to the immune system working to destroy an infection (Capriotti & Frizzell, 2016).
Neutrophils		N/A		

Lymphocytes		N/A		
Monocytes		N/A		
Eosinophils		N/A		
Bands		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*	135		Sodium levels being slightly decreased due to taking diuretics (Capriotti & Frizzell, 2016)
K+	3.5-5.1 *mmol/L*	4.4		
Cl-	98-107 *mmol/L*	100		
CO2	21.0-32.0 *mmol/L*	N/A		
Glucose	60-99 *mg/dL*	102mg/dL		Blood sugar slightly elevated due to trauma (Capriotti & Frizzell, 2016).
BUN	5-20 *mg/dL*	21mg/dL		BUN levels slightly elevated due to urinary tract obstruction (Capriotti & Frizzell, 2016)
Creatinine	0.5-1.5 *mg/dL*	1.0mg/dL		
Albumin	*3.4-5.4 g/dL*	3.2g/dL		Albumin levels slightly decreased due to inflammatory disease and malnutrition (Capriotti & Frizzell, 2016).
Calcium	8.5-10.1 *mg/dL*	9.0mg/dL		
Mag	-	N/A		
Phosphate	2.5-4.5 mg/dL	3.7mg/dL		
Bilirubin	-	N/A		

Alk Phos	-	N/A		

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	Colorless-Yellow, Clear	Cloudy, slight amber, no odor		These findings are consistent with a urinary tract infection (Capriotti & Frizzell, 2016)
pH	5.0-7.0	5.6		
Specific Gravity	1.003-1.005	1.039		Specific gravity elevated due to a urinary tract infection (Capriotti & Frizzell, 2016)
Glucose	Negative	Negative		
Protein	Negative	2 mg/dL		This value can be due to diabetes and congestive heart failure (Capriotti & Frizzell, 2016)
Ketones	Negative	Negative		
WBC	0-25/*uL*	10		
RBC	0-20/*uL*	4-6		
Leukoesterase	Negative	Positive		Positive leukoesterase can indicate white blood cells in urine and a urinary tract infection (Capriotti & Frizzell, 2016)

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	No bacteria present	E. coli		E. coli is typically found in the gastrointestinal tract and is present in urine when a urinary tract

				infection is present (Capriotti & Frizzell, 2016).
Blood Culture		No culture in file.		
Sputum Culture		No culture in file.		
Stool Culture		No culture in file.		

Lab Correlations Reference (APA):

Capriotti, T., & Frizzell, J. P. (2016). *Pathophysiology: introductory concepts and clinical perspectives*. Philadelphia: F.A. Davis Company.

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 consistent 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.

Left elbow – No fracture apparent but evidence of mild soft tissue shadow 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	Lorazepam (Ativan)	Acetaminophen (Tylenol)	Levofloxacin (Levaquin)	Glyburide (DiaBeta)	Albuterol (Proventil)
Dose	2mg	325mg	250mg	2.5mg	0.5% solution in 3mL 0.9% sodium chloride
Frequency	q.6.h. PRN	q.4.h. PRN	q.12.h.	q.d.	q.6.h.
Route	Oral	Oral	IV bolus	Oral	Nebulizer/ oral
Classification	Anxiolytic, Benzodiazepine	Nonsalicylate, para-aminophenol derivative, antipyretic, nonopioid analgesic	Fluroquinolone, antibiotic	Sulfonylurea, antidiabetic	Adrenergic, bronchodilator
Mechanism of Action	May potentiate the effects of GABA and other inhibitory neurotransmitters by binding to specific benzodiazepine receptors in cortical and limbic areas of CNS. GABA inhibits excitatory stimulation, which helps control emotional behavior. Limbic system	Inhibits the enzyme cyclooxygenase, blocking prostaglandin production and interfering with pain impulse generation in the peripheral nervous system. Acetaminophen also acts directly on temperature-regulating center in the hypothalamus by inhibiting synthesis of	Interferes with bacterial cell replication by inhibiting the bacterial enzyme DNA gyrase, which is essential for repair and replication of bacterial DNA.	Stimulates insulin release from beta cells in the pancreas. Glyburide also increases peripheral tissue sensitivity to insulin either by enhancing insulin binding to cellular receptors or by increasing the number of insulin receptors.	Albuterol attaches to beta2 receptors on bronchial cell membranes, which stimulates the intracellular enzyme adenylate cyclase to convert adenosine triphosphate to cyclic adenosine monophosphate. This reaction decreases intracellular calcium

	contains a highly dense area of benzodiazepine receptors, which may explain drug's antianxiety effects. Also, lorazepam hyperpolarizes neuronal cells, thereby interfering with their ability to generate seizures.	prostaglandin E2.			levels. It also increases intracellular levels of cAMP. Together, these effects relax bronchial smooth-muscle cells and inhibit histamine release.
Reason Client Taking	This medication is being taken to decrease any agitation and restlessness the pt may have.	This medication is being taken to decrease the pt's fever if it becomes greater than 37.3 °C (100°F).	This is an antibiotic the pt is taking to help treat her urinary tract infection.	This medication is being taken by the pt to help control her blood glucose levels since she is diabetic.	This medication helps to treat bronchospasm in patients with reversible obstructive airway disease, so the pt is taking this to help her breathing with her CHF.
Contraindications (2)	Intra-arterial delivery; premature infants; psychosis	Severe hepatic impairment, severe active liver disease	Hypersensitivity to levofloxacin, other fluroquinolones, or their components; myasthenia gravis	diabetic ketoacidosis, hypersensitivity to glyburide	Hypersensitivity to albuterol or its components.
Side Effects/Advers	Coma, anxiety	Agitation, fatigue	CNS stimulation,	Abnormal gait,	Insomnia, irritability

e Reactions (2)			confusion	dizziness	

Medications Reference (APA):

Jones & Bartless Learning. (2019). *2019 Nurse's drug handbook* (18th ed.). Burlington, MA.

Assessment

Physical Exam (18 points)

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	Pt appears uncomfortable and in pain A&O x3 Oriented to person, time, place, and current events. No distress Pt appears sweaty and uncomfortable. Looks like she is in a lot of pain
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	 White/pink normal for race Appears slightly dehydrated, clean. Warm Normal turgor 2+ None noted Left hip, femur, and left elbow bruised. None noted 20

HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	 Head and neck symmetrical, no bumps or lesions noted. Trachea is midline. Lymph nodes are nonpalpable Ears are free of discharge, no bumps or lesions noted, healthy cerumen, and tympanic membrane is a pearly grey Client uses glasses to help with nearsighted vision. Upon inspection sclera was white, cornea was clear, conjunctiva was wink with no lesions or discharge noted. Normal EOM Septum midline. No drainage or bleeding noted. No deviation or abnormalities and sinuses are not tender Patient has natural teeth on top and bottom. Good dentition overall. No lesions or bumps noted. Mouth is pink and moist.
CARDIOVASCULAR: **Heart sounds:** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:** **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☐ N ☒** **Location of Edema: N/A**	S1 and S2 heart sounds normal, normal S4 gallop sound heart, no murmurs or rubs present Pulse is 96bpm radial Capillary refill is less than 3 seconds.
RESPIRATORY: **Accessory muscle use: Y☒ N ☐** **Breath Sounds:**	 Very labored breathing. Patient has abnormal lung sounds. Crackles are noted in auscultation due to fluid in the lungs
GASTROINTESTINAL: **Diet at home:** **Height:** **Weight:** **Auscultation Bowel sounds:** **Last BM:** **Palpation:** **Inspection:** **Distention:** **Incisions:** **Scars:**	Low sodium diet, diabetic diet, fluid restriction diet (due to congestive heart failure) 5’7” 156 lbs Soft clicks and gurgles heard in each quadrant Three days ago No pain or masses noted on palpation No abnormalities found upon inspection for distention, incision, scars, drains, or wounds.

Drains: **Wounds:** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type: N/A**	
GENITOURINARY: **Color:** **Character: Pt reports no cloudiness or sediment in urine.** **Quantity of urine: Pt voided one time prior to my arrival. He had no more urine before I left.** **Pain with urination: Y ☒ N ☐** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☒ N ☒** **Type: Indwelling** **Size: 14 Fr**	Slightly amber Cloudy urine but no sediment fond or odor present Pt voided one time and it was 100mL Genitals appear normal
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N ☒** **Fall Risk: Y ☐ N☒** **Fall Score:** **Activity/Mobility Status:** **Independent (up ad lib) X** **Needs assistance with equipment ☐** **Needs support to stand and walk☐**	Pt has no neurovascular deficits noted. ROM is good. No supportive devices are needed Good, equal bilaterally.
NEUROLOGICAL: **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ i Legs ☐ (Left) Arms ☐ Both ☒** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	Moves both arms and legs well bilaterally. Oriented to person, time, place, and current events. Good Good Glasses are present for nearsighted vision Alert and oriented x3
PSYCHOSOCIAL/CULTURAL: **Coping method(s):**	While in the hospital, neighbor keeps pt occupied No deficits noted

Developmental level: **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	Pt identifies as Christian and typically goes to church every Sunday morning Pt does not speak of family and lives alone but the neighbor next door checks in with her every day and makes sure she doesn't need anything. Pt states, "I like living alone. I like my peace and quiet and I tend to keep it that way".

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0500	96 radial	136/76 RA	24	99.4 °F orally	91% with O2

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0700	Numerical 1-10 9/10	Suprapubic pain in the lower abdomen and painful urination	Burning sensation in pt is intense when using the bathroom and lower abdomen pain is "getting worse and so is my breathing" per pt.	Pt stated, "when I use the bathroom it hurts so I can't go very much and when I do go, I feel a burning sensation". Pt also stated, "I have been having a difficult time breathing and have had some pain in my lower stomach area".	Pt is taking 325mg of Tylenol q.4.h. orally as needed to control her fever if it gets greater than 100°F. Pt is also taking 250mg of levofloxacin IV bolus q.12.h. to help treat the urinary tract infection.

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
IV 2300mL IVPB 60mL	Indwelling catheter 100mL

Intake Total – 2360mL	Output Total – 100mL

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

Nursing Diagnosis • Include full nursing diagnosis with "related to" and "as evidenced by" components	**Rational** • Explain why the nursing diagnosis was chosen	**Intervention (2 per dx)**	**Evaluation** • How did the patient/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
1. Impaired urinary elimination related to urinary tract infection as evidenced by dysuria.	Pt had cloudy urine and only had 100mL of urine output in a 12-hour shift. Pt will be encouraged to increase fluid to help improve renal blood blow. Pt will also be encouraged to void every 2-3 hours to prevent the accumulation of urine thus limiting the number of bacteria.	1.Pt will be encouraged to increase fluid intake by 3 to 4 liters a day as tolerated 2. Encourage the pt to void every 2-3 hours	Pt was unable to drink 3-4 liters a day and void every couple of hours. Due to goals not being met and still little output pt had indwelling catheter put in before the end of my shift. Will be re-evaluating during the next shift.
2. Acute pain related to urinary tract infection as evidenced by burning on urination.	Pt's biggest complaint was her acute pain in her lower abdomen and not being able to urinate very much because of the constant burning sensation. Assess pt.'s pain to see how they describe the symptoms and characteristics since someone who has recurrent infections can be	1. Assess pt.'s pain description of pain such as quality, nature and severity of pain at least 2 times per shift. 2.Apply a heating pad to the suprapubic area or lower back	Heating pad was left on for 20 minutes and helped to alleviate some of her pain she was feeling. When asked her pain level she said, "I am still in pain, but I would say its about a 6 now". Pt was still complaining of burning sensation and having little output due to the pain therefore pt had an indwelling catheter put in. Goals were partially met. Goals will be re-evaluated during the next

	asymptomatic. Also apply heating pad to help alleviate the pain.		shift.

Other References (APA):

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

Concept Map (20 Points):

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Subjective Data

The pt stated “when I use the bathroom it hur so I can’t go very much and when I do go, I feel a burning sensation”.
Pt rated her pain a 6 on a scale of one to ten.
Pt also stated, “I have been having a difficult time breathing and have had some pain in my lower stomach area”.

Nursing Diagnosis/Outcomes

1. Impaired urinary elimination related to urinary tract infection as evidenced by dysuria.
   - Goals were not met.
   - Pt was unable to drink 3 to 4 liters of water a day and was unable to void every couple of hours.
   - Pt had indwelling catheter put in due to not meeting goals.
2. Acute pain related to urinary tract infection as evidenced by burning on urination.
   - Goals were partially met.
   - Heating pad was left on for 20 minutes at a time throughout the shift and helped to alleviate some pain.
   - Pt was still having burning sensation and having little urine output.
   - Pt had an indwelling catheter put in before

Objective Data

Chief complaint: Dysuria - suprapubic pain
Diagnosed with urosepsis
Vital signs: B/P- 136/76 RA
P – 96 radial
RR – 24
T – 99.4°F oral
O2 – 91% with O2
Pain – 9/10
Na- and Albumin are slightly decreased. Glucose and BUN are slightly elevated. Protein, E. coli, and leukoesterase found in the urine.
Urine was cloudy and slightly amber with no odor

Patient Information

with a prior medical history of congestive heart failure and diabetes was found by her neighbor and was confused and in pain. The pt was brought in to the ED from home where she was admitted for urosepsis. Pt has no prior history of urinary tract infections.

Nursing Interventions

Encourage patient to increase fluid intake by 3 to 4 liters a day as tolerated

Encourage the patient to void every 2 to 3 hours

Assess the patient’s pain description of pain such as quality, nature, and severity of pain at least 2 times per shift

Apply a heating pad to the suprapubic area or lower back

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