
Urinary tract infection (UTI)

DEFINITION/ PATHOPHYSIOLOGY

An infection of one or more structures in the urinary system. Gram-negative bacteria, most commonly *Escherichia coli*, cause most UTIs. The condition is more common in women than men.

People more susceptible to UTI's:

- Diabetics because of changes in the immune system
- Infants who are born with abnormalities of the urinary tract
- Women who use a diaphragm
- Women whose partners use a condom with spermicidal foam
- A person who has already had a UTI
- Pregnant women
- Post-menopausal women
- Women on birth control pills
- Women with lowered immunity
- Women with prolapsed urethra or bladder
- Women with obstructions in the urinary tract
- Men or women who do not carefully wash genitals before AND after sex

SIGNS & SYMPTOMS

Symptoms of **urethritis** often include:

- Burning sensation at the start of urination

Symptoms of **cystitis** often include:

- Burning sensation in the middle of urination
- Fever
- Lower abdominal pain
- Unusual smell, color, or appearance (cloudy, dark, blood tinged) of urine

Symptoms of **Pyelonephritis** often include:

- Pain in back, flanks, or abdomen
- Fever
- Nausea
- Vomiting

Other symptoms of UTI's:

- Uncomfortable pressure above pubic bone
- Fullness in rectum (in men only)
- Small amount of urine excreted, despite urge to urinate more
- Irritability (in children only)
- Abnormal eating (in children only)

UTIs may be overlooked or mistaken for other conditions in older adults.

ASSESSMENT:

History-

A history of signs and symptoms related to UTI is obtained from the patient with a suspected UTI.

Physical-Mental

- Assess changes in urinary pattern such as frequency, urgency, or hesitancy.
- Assess the patient's knowledge about antimicrobials and preventive health care measures.
- Assess the characteristics of the patient's urine such as the color, concentration, odor, volume, and cloudiness.
- Abnormal lab reports of the urine.

NURSING INTERVENTIONS

- Monitor urine color changes, monitor the voiding pattern, intake and output every 8 hours
- Note the location, time intensity of pain scale.
- Provide measures to help manage pain.
- Encourage the patient to drink a variety of fluids as much as possible
- Encourage the patient to urinate every 2-3 hours and when suddenly felt.
- Observation of vital signs, especially temperature, as indicated.
- Limit the use of indwelling bladder catheters to manage incontinence.
- Assess the patient's laboratory data: Urinalysis (presence of RBC and WBC), bacteria in the urine, urine culture and sensitivity
- Assess the patient's knowledge of UTI risk factors, prevention and treatment.

PATIENT TEACHING

- The nurse should instruct the female patient to wash the perineal area from front to back and wear only cotton underwear. Also use this method after urinating.
- Increase and fluid intake is the number one intervention that could stop UTI from recurring.
- Strictly adhere to the antibiotic regimen if prescribed by the physician.

CULTURAL CONSIDERATIONS

- Assess influence of cultural beliefs, norms, and values on the client's ability to modify health behavior.
- Clarify culturally related health beliefs and practices.
- Provide culturally targeted education and health care services.

COORDINATING CARE WITH NURSING ASSISTANT

- Monitor urine color changes; monitor the voiding pattern, intake and output.
- Encourage the patient to drink as much as possible
- Encourage the patient to urinate every 2-3 hours and when it suddenly felt.

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