

Dysuria, urinary frequency and urgency, and/or pyuria (March 2023)

Rationale

Cystitis describes a common clinical syndrome of dysuria and urinary frequency and urgency. It is sometimes associated with suprapubic discomfort and may also present with pyuria. These symptoms, although generally indicative of bacterial cystitis, may also be associated with other infections or conditions of the urethra or vagina.

Causal Conditions

(list not exhaustive)

- Infectious causes
 - a. Urinary tract infection (e.g., cystitis, pyelonephritis)
 - b. Sexually transmitted infections
 - c. Prostatitis
- Noninfectious urinary tract inflammation
 - a. Trauma
 - b. Interstitial cystitis
 - c. Hemorrhagic cystitis (e.g., due to chemotherapy or radiation therapy)
 - d. Bladder carcinoma
 - e. Other (e.g., urinary stones, urethral stricture)
- External to lower urinary tract (e.g., vulvovaginitis)
 - a. Yeast infections
 - b. Bacterial infections

- c. Chemical irritation
- d. Postmenopausal symptoms

Key Objectives

Given a patient who presents with dysuria, urinary frequency and urgency, urethral discharge, and/or pyuria, the candidate will diagnose the cause, predisposing conditions, severity, and complications, and will initiate an appropriate management plan.

Enabling Objectives

Given the patient with dysuria, urinary frequency and urgency, urethral discharge, and/or pyuria, the candidate will

- list and interpret critical clinical findings, including
 - a. results of a relevant history and physical examination, including examination of the abdomen, prostate, vagina, and urethra, as indicated;
 - b. differentiation of urinary tract infections from noninfectious causes of cystitis and conditions outside the urinary tract with similar presentation;
 - c. in case of recurring urinary tract infections, determination as to whether a predisposing condition may be present (e.g., urine stasis, presence of stone or foreign body); and
 - d. a differential diagnosis based on age, biological sex, and lifestyle;
- list and interpret critical investigations, including
 - a. urinalysis;
 - b. urine culture and sensitivity; and
 - c. other investigations (e.g., urethral and/or vaginal swab if indicated); and
- construct an effective initial management plan, including
 - a. selection of the most appropriate treatment for the underlying condition, including selection of appropriate antibiotics if indicated;
 - b. assessment of the illness severity and the need for hospitalization;
 - c. a determination as to whether additional investigation and/or referral are required; and
 - d. a brief outline of strategies for the prevention of recurrent urinary tract infections.