

Urinary Tract Infections
Rhodes College Clinic
April 2002 - J. Lewis, M.D.

1. What are the two most common organisms causing uncomplicated cystitis in the female patient?
 - a. E. coli
 - b. Klebsiella
 - c. Group D strep
 - d. Staph saprophyticus
 - e. Enterobacter

2. A 20 y.o. sexually active female Rhodes student c/o dysuria and frequency of 24 hours duration. Dipstick reveals trace 1+ pyuria, and a three-day treatment with Septra DS was prescribed. However, a urine C&S obtained because of a history of recurrent UTIs now reveals E.coli with a colony count of only 10^3 sensitive to Septra. What should now be done?
 - a. Stop treatment since a UTI is not present
 - b. Switch therapy to outpt. IV
 - c. Continue the planned 3-day treatment
 - d. Increase time of therapy to 7 days
 - e. Treat for 6 weeks
 - f. Obtain F/U urine C&S in 2 weeks

3. A 19 y.o. female Rhodes student who is sexually active has her fourth documented UTI over the past 12 months. She denies any history of diabetes, immunosuppression, nephrolitiasis, sickle cell disease, or UTIs as a child. What are proper management options?
 - a. Abdominal US and cystoscopy
 - b. IVP and cystoscopy
 - c. Promide prescriptions with refills for short course ATB therapy (i.e., 3 days)
 - d. Daily antibiotic therapy for 6 months
 - e. Single dose ATB therapy to be taken with intercourse.

4. A 22 y.o. Rhodes student develops fever to 102° , chills, and unilateral flank pain but without N&V. BP is 110/70 and HR 100. Dipstick UA reveals \oplus leukocyte esterase and \oplus nitrite. Proper management should include:
 - a. Microscopic UA and gram stain
 - b. Urine C&S
 - c. P.O. ATBs x 3 days
 - d. P.O. ATBs x 14 days
 - e. IV ATBs until afebrile; then P.O., ATBs to complete a 14 day course
 - f. Blood cultures

5. Treatment for asymptomatic bacteruria should always occur in which of the following conditions?
 - a. Pregnancy
 - b. Diabetes mellitus
 - c. Indwelling Foley catheter
 - d. Patients \geq age 65
 - e. Previous nephrolithiasis by history

6. Acceptable short course (3 day) ATB use for management of uncomplicated cystitis includes all of the following drugs. Which is considered the most effective and cost effective?
 - a. Amoxicillin
 - b. Septra DS
 - c. Quinolone
 - d. Nitrofurantoin
 - e. Tetracycline
 - f. Cefadroxil

7. Post-treatment cultures should always be obtained 2 weeks after episode of pyelonephritis. True or False

8. It is not necessary to obtain a urine C&S with a recurrent episode of cystitis. True or False

9. Acute cystitis complicated by DM, sx. \geq 1 week, recent UTI, or age >65 requires 7 days of rx. True or False

10. Persistence of fever and flank pain in a pyelonephritis case beyond 3 days despite therapy is an indication for CT or US imaging. True or False

11. All patients with an acute episode of pyelonephritis should have an ultrasound & cystoscopy following treatment. True or False

12. Relapses of cystitis should receive ATB rx. for 2 weeks. True or False

13. For each patient described below, select the most appropriate management (a-d).
- No treatment is indicated unless the patient develops fever or other signs consistent with urosepsis.
 - After obtaining a culture of the urine, initiate oral treatment with trimethoprim-sulfamethoxazole, norfloxacin, or ciprofloxacin. Modify treatment as dictated by urine culture results and course. Treat for 7 days.
 - Treat for 3 days with trimethoprim-sulfamethoxazole. Obtain urine culture only if no symptomatic response or relapse occurs.
 - Hospitalize the patient and initiate therapy with parenteral ceftriaxone, gentamicin, or ciprofloxacin after obtaining cultures of the urine and blood.
- 1) An 18 y.o. woman presents with urinary frequency, dysuria, and low-grade fever. Urinalysis shows pyuria and bacilli. She has never had similar symptoms or treatment for urinary tract infection.
 - 2) An 18 y.o. woman presents with her third episode of urinary frequency, dysuria, and pyuria in the past 4 months.
 - 3) A 58 y.o. man presents with his first episode of urinary frequency and dysuria. Urinalysis shows pyuria and bacilli.
 - 4) A 24 y.o. woman presents with fever, chills, nausea, vomiting, flank pain, and tenderness. Her temperature is 40°C (104°F); pulse rate is 120/min, and blood pressure is 100/60 mm Hg. Urine gram stain shows gram \square bacilli.
 - 5) A 78 y.o. woman presents with an indwelling Foley catheter and pyuria.
14. A 19 y.o. uncircumcised male Rhodes student comes c/o dysuria and urgency. UA reveals pyuria and C&S reveals $>10^5$ E.coli. Management should include:
- Treatment for 3 days
 - Treatment for 7 days
 - Treatment for 2-6 weeks
 - Urologic evaluation (US & Cysto.)
 - Referral for circumcision
15. An 18 y.o. Rhodes student comes c/o dysuria of gradual onset over the last week. She just became sexually active about 2 weeks ago. Urine dipstick reveals pyuria. How should this patient be managed?
- A pelvic examination should be performed.
 - Her new boyfriend should be referred for evaluation.
 - A three-day course of Septra is indicated.
 - A urine culture is indicated.
 - A one-week course of a quinolone or doxycycline may be indicated.

References:

1. Harrison's Textbook of Medicine. Braunwald E et al, eds. McGraw Hill. New York. 2001 pp. 1620-1626.
2. Barker LR et al. Principles of Ambulatory Medicine. Williams and Wilkins. 5th Ed. Baltimore. 1999. pp. 331-341.
3. Warren JW et al. Guidelines for Antimicrobial Treatment of Uncomplicated Acute Bacterial Cystitis and Acute Pyelonephritis in Women. Clin Infec Dis. 1999;29:745-758.
4. Lipsky B and Schaberg D. Managing Urinary Tract Infections in Men. Hosp Pract 2000;35:53-60.
5. Up-to-date - UTIs - 2001.
6. Goroll A, Mulley A. Primary Care Medicine. Lippincott, Williams & Wilkins. 4th Ed. Philadelphia. 2000. pp. 770-775

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