New UTI Guidelines

Giovanna Beauchamp, PGY1

Q #1

- Pt is a 20 month old boy who presents to the ER with fever of 102.6F. He does not appear ill. PE shows no clear focus of infection. Routine labs reveal a UA from a bagged specimen positive for 75 LE; the rest of the UA is WNL including negative nitrites. What is your next step?

Q #1

- A. Treat pt based on the positive UA.
- B. Repeat the UA from the same sample.
- C. Obtain urine via cath or SPA for repeat UA.
- D. Obtain urine via cath or SPA for repeat UA and Ucx.
- E. Obtain urine via cath or SPA for repeat UA and Ucx and treat the pt while awaiting results.

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Q #2

- Pt’s cathed urine showed 50 LE, negative nitrites, + bacteria, 6 WBCs. Temp 100.6F. He continues to appear well; playful and tolerating McDonald’s. What is your next step?

Q #2

- A. Admit for parenteral antibiotics.
- B. Admit for parenteral antibiotics + renal U/S.
- C. Admit for parenteral antibiotics + renal U/S + VCUG.
- D. Discharge without antibiotics and wait for Ucx.
- E. Discharge with broad spectrum PO antibiotics x 5d.
- F. Discharge with broad spectrum PO antibiotics x 10d.
- G. Discharge with broad spectrum PO antibiotics + renal U/S.
- H. Discharge with broad spectrum PO antibiotics + renal U/S + VCUG.
- I. Urology consult to determine length of tx and advice on imaging studies.

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The 7 Statements…

2011 revision of the
1999 guidelines

Statement #1

- **If a clinician decides that a febrile infant with no apparent source for the fever requires antimicrobial therapy to be administered because of ill appearance or another pressing reason, the clinician should ensure that a urine specimen is obtained for both culture and urinalysis before an antimicrobial agent is administered; the specimen needs to be obtained through catheterization or SPA, because the diagnosis of UTI cannot be established reliably through culture of urine collected in a bag.**

Statement #2

- **If a clinician assesses a febrile infant with no apparent source for the fever as not being so ill as to require immediate antimicrobial therapy, then the clinician should assess the likelihood of UTI. If the clinician determines the febrile infant to have a low likelihood of UTI, then clinical follow-up monitoring without testing is sufficient.**

Statement #2 (cont.)

- **If the clinician determines that the febrile infant is not in a low-risk group, then there are 2 choices**
  - **Option 1 is to obtain a urine specimen through catheterization or SPA for culture and urinalysis.**
  - **Option 2 is to obtain a urine specimen through the most convenient means and to perform a urinalysis. If the urinalysis results suggest a UTI (positive leukocyte esterase test results or nitrite test or microscopic analysis results positive for leukocytes or bacteria), then a urine specimen should be obtained through catheterization or SPA and cultured; if urinalysis of fresh (<1 hour since void) urine yields negative leukocyte esterase and nitrite test results, then it is reasonable to monitor the clinical course without initiating antimicrobial therapy, recognizing that negative urinalysis results do not rule out a UTI with certainty.**

Statement #3

- **To establish the diagnosis of UTI, clinicians should require *both* urinalysis results that suggest infection *and* the presence of at least 50 000 CFUs of a uropathogen cultured from a urine specimen obtained through catheterization or SPA.**

Statement #4

- **When initiating treatment, the clinician should base the choice of route of administration on practical considerations. Initiating treatment orally or parenterally is equally efficacious. The clinician should base the choice of agent on local antimicrobial sensitivity patterns (if available) and should adjust the choice according to sensitivity testing of the isolated uropathogen. The clinician should choose 7 to 14 days as the duration of antimicrobial therapy.**

Statement #5

- **Febrile infants with UTIs should undergo renal and bladder ultrasonography (RBUS).**

Statement #6

- **VCUG should not be performed routinely after the first febrile UTI; VCUG is indicated if RBUS reveals hydronephrosis, scarring, or other findings that would suggest either high-grade VUR or obstructive uropathy, as well as in other atypical or complex clinical circumstances. Further evaluation should be conducted if there is a recurrence of febrile UTI.**

Statement #7

- **After confirmation of UTI, the clinician should instruct parents or guardians to seek prompt medical evaluation (ideally within 48 hours) for future febrile illnesses, to ensure that recurrent infections can be detected and treated promptly.**

Summary

- A clinician should determine if antibx are needed immediately or if tx can be delayed until Ucx and UA results are available.
- Dx is based on the presence of pyuria and at least 50 000 CFUs of a single pathogen; UA alone does not provide a definitive dx.
- After 7 to 14 days of tx, f/u is necessary with evaluation of the urine if recurrence of fever to dx and tx recurrent infx.

Summary: Imaging

- U/S of the kidneys and bladder should be performed with 1st febrile UTI.
- Routine VCUG after the first UTI is not recommended.
- VCUG is indicated if RBUS reveals hydronephrosis, scarring, or other findings that would suggest either high-grade VUR or obstructive uropathy, as well as in other atypical or complex clinical circumstances.
- VCUG also should be performed if there is a recurrence of febrile UTI.

Thanks :)