Children's Mercy KANSAS CITY

UTI Diagnostic Criteria:

- Urinalysis with >5 WBC per HPF OR + leukocyte esterase OR + nitrite (link to evidence) AND
- · Urine culture results, if resulted. Growth of a uropathgen:
 - Clean catch: >100,000 cfu/ml
 - Cath specimen: >50,000 cfu/ml (new data suggests 10,000 may be appropriate)

Admission Criteria

- Requiring IV fluids
- Outpatient follow up cannot be arranged
- Failed oupt therapy defined by:
- ► Persistent clinical symptoms > 48h on appropriate therapy, or
- ► Inability to maintain hydration

RBUS Indications

- ≤ 24 months of age with febrile
- Recurrent (more than 1) febrile UTI
- Male with febrile UTI *Concern for renal abscess:
- olf no clinical improvement after 48 hours of antibiotic to which the organism is susceptible obtain RBUS within 24
- •UTI due to atypical organism (not E.coli, Klebsiella spp, or Enterococcus

Pyelonephritis

- CVA tenderness
- Vomiting
- Fever > 39 C
- · If RBUS performed, evidence of pyelo

UTI /Pyelo Management **Exclusion Criteria** Does pt have Consider stopping a UTI? antibiotics if started Yes Febrile Infant Pathways: Is the pt • 8 to 21 days of age < 60 days 22 to 28 days of age old? 29 to 60 days of age Nο Empirically administer antibiotic If history of UTI, empiric therapy Does pt should be based on previous meet admit microbiology if available criteria? ► No minimum IV duration No Evaluate pt for RBUS Evaluate pt for need for RBUS within the next month* Switch to PO antibiotics when pt tolerating PO Does pt meet Is pt <24 months? discharge criteria? Nο Yes Does pt have Treat pyelonephritis: pyelonephritis? · If susceptibilities are available, review for definitive therapy. Yes No · If not available, use empiric Unknown cephalexin with higher dosing (no Kirby Bauer needed). Treat cystitis: Total IV + PO duration = 7 to 10 days · If susceptibilities are available, review Consider longer total duration (up to 14 for definitive therapy. days) if: · If not available, use empiric cephalexin. atypical clinical course Total PO duration = 3-5 days ▶ non-E. coli UTI abnormal RBUS Follow-up · Call family to review culture results · Narrow coverage when sensitivities return • If RBUS is indicated, schedule or communicate need to schedule with PCP

- Diagnosing UTI/Pyelo Algorithm
- · Renal Imaging for UTI/Pyelo Algorithm

Antibiogram link

Empiric Therapy

Pyelonephritis or unknown:

Cephalexin (high dose) 75 to 100 mg/kg/day divided q8h (max: 1000 mg/dose)

IV:

Cefazolin (high dose) 100 mg/kg/day divided q8h (max: 6g/day)

Ceftriaxone 50 mg/kg/dose IM q24h (max: 2000 mg/dose) Cystitis:

Oral:

Cephalexin 25 - 50 mg/kg/day divided q8h (max: 500 mg/dose)

For **severe** cephalosporin allergy For **severe** penicillin allergy

Discharge Criteria

- · Clinical response to therapy (i.e. tolerating PO)
- · Modifyable risk factors for UTI (e.g. voiding dysfunction) addressed
- · Family education provided
- · If indicated, RBUS completed or scheduled

Acronyms:

CVA: Costovertebral angle Pyelo: Pyelonephritis RBUS: Renal bladder ultrasound

UTI: Urinary tract infection

w/u: Work up



QR Code for mobile access

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Link to synopsis and references

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· Follow up with PCP, within 48 hours, if pt not improved