



Admission Criteria

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

RBUS Indications

- ≤ 24 months of age with febrile UTI
- Recurrent (more than 1) febrile UTI
- Male with febrile UTI
- *Concern for renal abscess:
 - If 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 spp*)

Pyelonephritis

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

UTI /Pyelo Management

Exclusion Criteria

Is the pt < 60 days old?

Yes

Febrile infant:

- 8 to 21 days of age
- 22 to 28 days of age
- 29 to 60 days of age

Does pt meet admit criteria?

Yes

Empirically administer antibiotic

- If history of UTI, empiric therapy should be based on previous microbiology if available
- No minimum IV duration

Evaluate pt for RBUS

Switch to PO antibiotics when pt tolerating PO

Does pt meet discharge criteria?

No

Yes

Treat pyelonephritis:

- If susceptibilities are available, review for definitive therapy.
- If not available, use empiric cephalexin with higher dosing (no Kirby Bauer needed).

Total IV + PO duration = 7 to 10 days

Consider longer total duration (up to 14 days) if:

- atypical clinical course
- non-E. coli UTI
- abnormal RBUS

Treat cystitis:

- If susceptibilities are available, review for definitive therapy.
- If not available, use empiric cephalexin.

Total PO duration = 3-5 days

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

Algorithms:

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

Antibiogram link

Empiric Therapy

Pyelonephritis or unknown:

Oral:

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)

IM:

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)
- Modifiable risk factors for UTI (e.g. voiding dysfunction) addressed
- Family education provided
- If indicated, RBUS completed or scheduled



QR Code for mobile access

Acronyms:

CVA: Costovertebral angle
 Pyelo: Pyelonephritis
 RBUS: Renal bladder ultrasound
 UTI: Urinary tract infection
 w/u: Work up