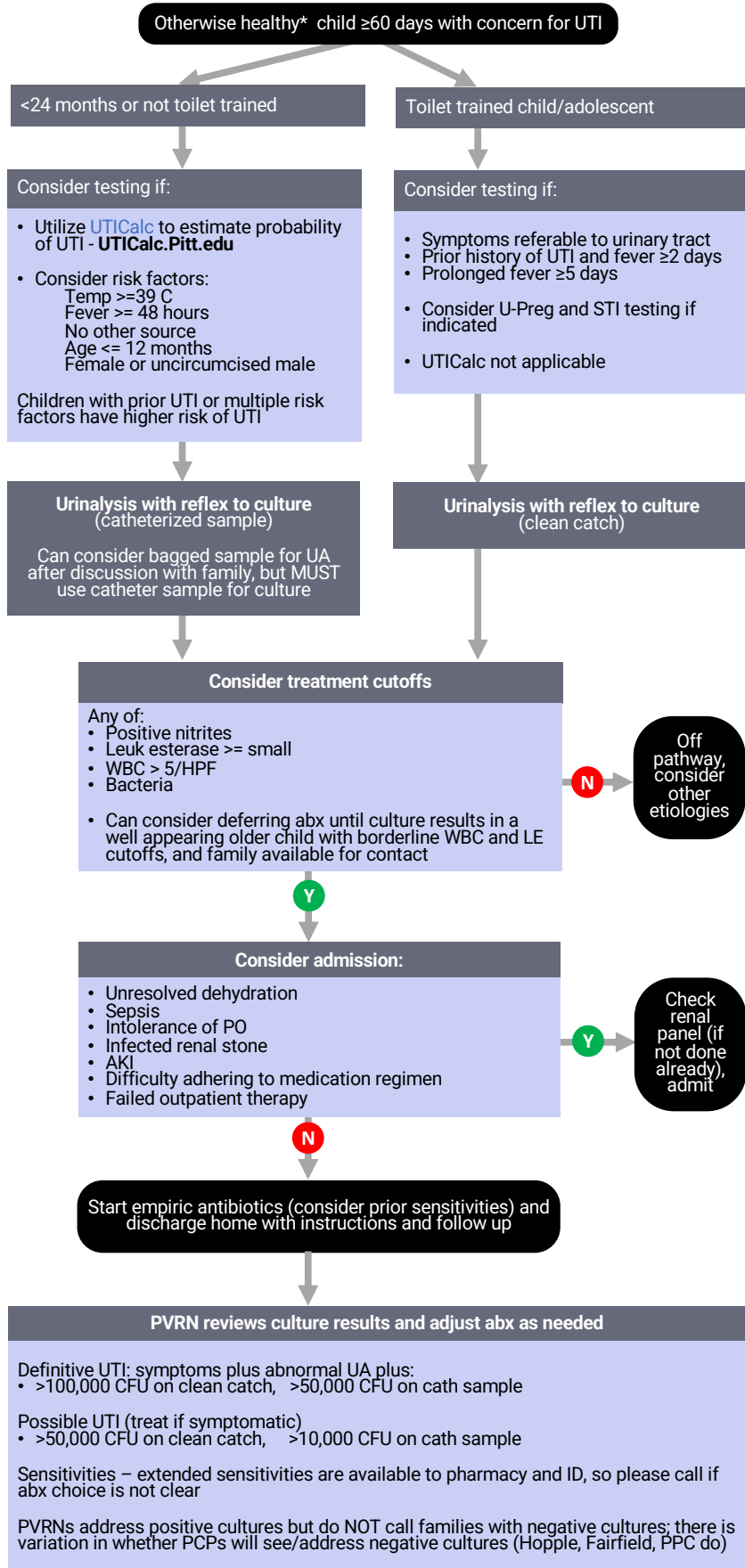


# Urinary Tract Infection

Emergency Department / Urgent Care – Age ≥60 days



## Definitions

### UA and culture consistent with UTI and:

- Cystitis** – lower GU symptoms (dysuria, urgency, frequency, pain) without fever or systemic symptoms
- Pyelonephritis** – presence of fever or flank pain
- Complicated UTI** – sepsis, renal stone, renal abscess or other complicating factors may require longer durations

## Exclusions\*

### Does not apply to patients with:

- Chronic kidney disease
- Urinary tract abnormality, neurogenic bladder, recent GU surgery, vesicoureteral reflux
- Immunocompromise
- Septic shock

\*in these populations, have a low threshold to test; and review prior results / discuss with involved subspecialists as needed

## Lab considerations:

### UA with reflex to culture:

Criteria for a UA to “reflex to culture” (if ordered as UA with reflex to culture) include ANY of:

- Dipstick is positive for blood, LE or nitrite
- Microscopic review has any bacteria (even “occasional”) OR ≥3-5 WBC/HPF (CCHMC only reports micro as WBC/HPF, which is a centrifuged/“spun” sample)

### “Spun” vs “unspun”

Dipstick is performed on uncentrifuged (“unspun”) samples; Microscopic is performed on centrifuged (“spun”) samples for any UA with a dipstick positive for blood, LE, nitrite or >30 protein, AND for all children <24 months in the ED/UC

### Bacteria

Bacteria are reported is seen on “unspun” microscopic review; this is not the same a gram stain (which is not reported on UA at CCHMC thus UTICalc lab criteria are less applicable)

## UTICalc @ UTICalc.Pitt.edu

- Validated ages 2-23 months
- Can be helpful in deciding when to test with UA and culture
- LESS helpful in deciding when to treat as WBC and bacteria cutoffs are not compatible with CCHMC-reported ranges

## Empiric therapy

### Always consider prior sensitivities if available

#### Cystitis (NO fever):

- Cephalexin 25mg/kg/DOSE (max 500mg/DOSE) TID X 5 days
- If allergy:** Nitrofurantoin 5-7 mg/kg/DAY (max 400 mg/day) ÷ Q6. (Or can use MacroBID 100 mg caps BID X 5 days in patients ≥ 26 kg and can swallow pills)
- Cipro or TMP-SFX X 3 days (not first line; can use after sensitivities)

#### Pyelonephritis:

- Cephalexin 33mg/kg/DOSE (max 1000mg/DOSE) TID x 7 days
- If being admitted, ceftriaxone 50mg/kg/DOSE
- If allergy:** TMP-SFX or ciprofloxacin X 7 days
- Note: nitrofurantoin does not concentrate in kidney thus is not recommended for pyelonephritis

## Discharge instructions

- Address hydration and pain control (OTC meds)
- Discuss return precautions: fever > 48 hours, vomiting, med intolerance, decreased urine output
- Recommend PCP follow up 2-3 days for recheck