Yukon-Kuskokwim HEALTH CORPORATION

Clinical Guideline
UTI (3 months – 5 years)

Risk Factors for UTI

- Constipation
- Poor hygiene
- Uncircumcised boy

High Concern for UTI

- Fever >102
- No source
- Fever >48 hours
- History of UTI

May use **UTI Risk Calculator** to help risk-stratify.

Signs and Symptoms of UTI

- Fever
- Dysuria
- Hematuria
- Vomiting
- Abdominal pain
- New daytime or nighttime wetting
- Increased frequency of voiding

Differential Dx for Dysuria

- Vulvovaginitis
- Candida infection
- Bowel-bladder dysfunction
- Poor hygiene
- Sexual abuse (consider collecting dirty urine for GC/CT; see **Suspected Pediatric Sexual Abuse Procedure Guideline** for more information)
- Age-appropriate self-exploration
- UTI

Resistance

- Empiric drug choice is based on local resistance patterns (see **YKHC Antibiogram**) and consultation with ID specialist.
- If urine culture grows an Extended-Spectrum Beta-Lactamase (ESBL) producing organism, please obtain an infectious disease consult during business hours and add ESBL to Problem List.

Indications for VCUG

- Recurrent febrile UTI.
- Major anomaly on ultrasound. Consult pediatric urologist and consider obtaining VCUG in Anchorage.

Note: study available in Bethel 1-2 times per year when radiologist in-house.

Child less than 5 years of age with concern for UTI

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Obtain catheterized or true clean catch urine sample for urinalysis (UA) AND culture.

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UA positive for one or more:

- Leukocyte esterase
- Nitrites
- >5 WBC/HPF on microscopy

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Ensure urine culture is sent.

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Patient appearing toxic or not tolerating PO?

- Yes → Empiric antibiotic treatment: ceftriaxone 50 mg/kg/day IV/IM
- No ↓

Consider empiric treatment with cephalexin 20 mg/kg/dose Q8h x5-10 days. Max dose 1000 mg.
Note: consider 10 day course if <6 mo.
May defer empiric treatment and await culture sensitivities.

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Urine Culture Results

Diagnose UTI if:
- Single species ≥50,000 CFU/mL in a catheterized sample
- Single species ≥100,000 CFU/mL in a clean catch sample.
- Single species ≥10,000 CFU/mL in a catheterized sample with positive UA.
- ≥50,000 CFU/mL in a clean catch sample with positive UA.

- No → No UTI. Stop antibiotics.
- Yes ↓

Begin empiric treatment and narrow coverage per sensitivities.

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If first UTI and ≤24 months, perform renal ultrasound at first opportunity to evaluate anatomy.

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Renal abnormality identified.

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- If mild pelviectasis identified, repeat ultrasound in 3 months.
- If any other anomaly identified, consult pediatrics.

Once clinically improved and sensitivities established, switch to oral antibiotics → If first UTI and ≤24 months, perform renal ultrasound at first opportunity to evaluate anatomy.

Symptomatic Care

- If dysuria, irritation, etc. recommend A+D ointment and instruct family to do soaks/ baths with warm water and no soap.
- May consider baking soda ¼ cup per tub.

Village Management

- DO NOT treat any child empirically in the village without sending clean catch urine sample for culture.
- Consider symptomatic care (see box) for possible vulvovaginitis.
- If patient has dysuria, increased frequency, new-onset enuresis, and/or abnormal clean catch urinalysis, consider further evaluation in Bethel.

DO NOT…

- Treat any child for UTI empirically without culture pending.
- Routinely collect urine via bag.
- Routinely perform a test of cure.
- Routinely start UTI prophylaxis.
- Perform suprapubic taps.
- Routinely obtain bloodwork for uncomplicated UTI.
- Add UTI to Problem List until confirmed by culture.

NOTE: For infants <90 days with fever, see the Fever in Infants 0-90 Days Guideline.
If diagnosis of UTI is suspected after appropriate work-up, follow this guideline for full management recommendations.

This guideline is designed for the general use of most patients but may need to be adapted to meet the special needs of a specific patient as determined by the medical practitioner.
Approved by Clinical Guideline Committee 1/19/24.
Click here to see the supplemental resources for this guideline.
If comments about this guideline, please contact Clinical_Guidelines@ykhc.org.