HISTORY OF UTI REFERRAL GUIDELINE

MAINE MEDICAL PARTNERS - PEDIATRIC SPECIALTY CARE (DIV. OF NEPHROLOGY) • 887 CONGRESS ST, PORTLAND, ME • (207) 662-5522

HIGH RISK

SUGGESTED EMERGENT CONSULTATION

SYMPTOMS AND LABS

SYMPTOMS: Consistent with pyelonephritis:

Fever (usually > 39oC)

Ill-appearance

Flank or upper abdominal pain

Cloudy urine

EXAM: CVA tenderness, abdominal/ retroperitoneal mass

LABS: Elevated creatinine, positive urine culture, positive leukocyte esterase, positive nitrites

SUGGESTED PREVISIT WORKUP

Any child who has had a febrile UTI should have an ultrasound according to 2011 AAP guidelines (see below)

If US is completely negative, VCUG may not be needed. Beware of subtleties that may not be pointed out on radiology report

If unsure, please refer to nephrology so we can consider all relevant imaging and history

MODERATE RISK

SUGGESTED CONSULTATION OR CO-MANAGEMENT

SYMPTOMS AND LABS

SYMPTOMS: Consistent with cystitis:

Low grade fever or no fever

Dysuria

Urinary frequency/urgency

Suprapubic discomfort

Urinary incontinence

Cloudy urine

AND

YES history of UTI

EXAM: Labial adhesions, phimosis, any genitourinary abnormalities, spine abnormalities (tufts/dimples)

LABS: Positive urine culture, positive leukocyte esterase, positive nitrites

SUGGESTED WORKUP

If the child has recurrent, non-febrile, UTI's, a non-urgent referral should be considered

Most of these children will have a dysfunctional voiding pattern, which can be treated with a urotherapy regimen (which nephrology can teach the family)

Presence of a urologic abnormality such as hydronephrosis needs to be screened for in all of these cases with a renal and bladder US

LOW RISK

SUGGESTED ROUTINE CARE

SYMPTOMS AND LABS

SYMPTOMS: Consistent with cystitis:

Temperature < 100.4

Dysuria

Urinary frequency/urgency

Suprapubic discomfort

Urinary incontinence

Cloudy urine

AND

NO history of UTI

EXAM: Suprapubic tenderness, retained stool in lower abdomen.

LABS: Positive urine culture, positive leukocyte esterase, positive nitrites

SUGGESTED MANAGEMENT

If this is the child's first UTI, and it is clearly limited to the bladder (cystitis) a referral may not be needed

Stool retention is a common contributing factor

All pts with history of UTI should at least get a high fiber diet

Consider a KUB to assess for constipation if unclear, as well as a cleanout or stool softeners as needed

CLINICAL PEARLS

- The above guidelines are meant to apply to children who have had a urinary tract infection which has already been treated. They are meant to help guide the decision of whether or not these children need referral to nephrology, and how quickly. Check the AMION listing for pediatric nephrology on call provider or call our office at (207) 662-5522 and ask to have the on call provider paged.
- We are also happy to help guide management of children with an active urinary tract infection, so please feel free to call.
- The 2011 AAP guidelines for diagnosis and management of initial febrile urinary tract infection in children 2-24 months of age has a lot of relevant information on how to properly evaluate a child with potential urinary tract infection, both acutely and after the infection has been treated (*Pediatrics; 128 (3): 595-610*). http://pediatrics.aappublications.org/content/128/3/595
- Although strictly meant to apply to children 2-24 months of age, a lot of the information can be extrapolated to older children.
- The majority of children who have had a urinary tract infection have what is known as a "dysfunctional voiding pattern," which is defined as a habitual failure to relax the urinary sphincter mechanism while voiding. This is treated with a urotherapy regimen. A relatively small minority have an underlying urologic or neurologic issue. The benefit of a nephrology referral comes in 2 areas:
  - 1. Deciding who needs to be screened for an underlying urologic issue (VCUG) or neurologic issue (MRI, urodynamics), because one does not want to screen everyone.
  - 2. Teaching the family how to implement an effective urotherapy regimen (which could include a bowel regimen, voiding schedules, increased fluid intake, review of proper voiding position, use of probiotics, use of antibiotic prophylaxis, and use of biofeedback).

Maine Medical PARTNERS

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