

## STEP A

Confirm symptoms of UTI

### A. Are there clinical features compatible with UTI?

Pyelonephritis (Febrile UTI)

- Systemic features AND kidney ±bladder-specific symptoms

Cystitis (afebrile UTI)

- Bladder-specific symptoms without systemic illness

*Pyelonephritis may still need to be considered in afebrile infants who are systemically unwell with elevated inflammatory markers*

No

**#1 Do NOT** initiate UTI work-up if symptoms not compatible

Yes

## STEP B

Screen for UTI

### B. Is urinalysis (UA) supportive of a UTI?

Suggestive of UTI if ≥ 1 of the following:

- ☐ Pyuria (LE trace or greater or > 5 WBC/hpf)
- ☐ Nitrituria (Indicates gram negative UTI)

*Infants <2m may test negative in face of UTI especially if LE of 1+ or greater is used as the criteria*

No

**#2. Do NOT** request urine culture if UA is negative

*Consider repeating UA if testing done early in illness*

*Caveat : For centres where bedside UA is not available , especially in sick infants both culture and UA may be ordered simultaneously on appropriately collected urine samples*

Yes

## STEP C

Confirm UTI

### C. Is culture requested on an appropriate sample?

- ☐ In/out catheter
- ☐ Suprapubic aspirate (SPA)
- ☐ Clean catch (CC)
- ☐ Mid-stream urine (MSU)

No

**#3. Do NOT** request cultures on a bag collection

Yes

## STEP D

Interpret culture report

### D. Is diagnosis of UTI confirmed?

Pyuria PLUS significant growth of a single uropathogen

- ☐ Catheter ≥ 5 X10<sup>4</sup> CFU/ml or ≥5× 10<sup>7</sup> CFU/L
- ☐ MSU or CC: ≥ 10<sup>5</sup> CFU/ml or ≥10<sup>8</sup> CFU/L
- ☐ SPA: Any growth

Common uropathogens : *E.coli, Klebsiella, Proteus, Enterobacter, Enterococcus*

No

**#4. Discontinue** treatment if culture negative

**#5. Do NOT** treat if not a uropathogen

**#6. Do NOT** treat mixed/insignificant growth

Yes

**#7 Deescalate** to narrowest spectrum appropriate therapy

**#8 Do NOT** request end of treatment culture