

# Urinary Tract Infections in LTC CLINICAL CARE MAP

Confirm - Typical Symptoms (1) Confirm - Typical (No Indwelling Catheter) Symptoms (1) (Indwelling Indications (check v all that apply): Catheter) □ Acute Dysuria Indications (check  $\vee$  all that apply): OR ☐ Temp greater than or equal to ☐ Temp greater than or equal to 38°C or 38°C or 1.1° above baseline on 2 1.1° above baseline on 2 consecutive consecutive occasions occasions ☐ New flank or suprapubic pain or PLUS one or more of the following: tenderness □ New or increased urinary frequency, □ Rigors urgency, incontinence □ New onset delirium □ New flank or suprapubic pain or tenderness Push Fluids (2) Discuss symptoms with physician or nurse practitioner or physician assistant (as applicable) Date/Time Alternate diagnosis? Obtain orders □ Urine C&S (3) ☐ Antibiotic therapy (3)\* Initials Date/Time Continue to monitor resident status Collect urine C&S (3) Date/Time Initials ☐ Urine specimen collected Date/Time Obtain urine C&S Results (4) □ Significant □ Not significant Confirm either: C&S results are NOT significant ☐ STOP or DO NOT INITIATE ANTIBIOTICS if C&S results are not significant C&S results are significant ☐ Confirm antibiotic order is consistent with recommended treatment regimens for UTI's in the elderly\*\* found on Care Map page 2. ☐ Confirm organism is susceptible to the prescribed antibiotic ☐ Consult Pharmacist (if N/A check here \_\_\_\_). □ Discuss findings with physician or nurse practitioner or physician assistant ☐ Initiate antibiotic if not already done Date/Time Initials

addressograph & place on permanent resident health record

## (1) Practice Point

#### **Non-specific Symptoms**

Residents who are cognitively impaired may not be able to verbalize symptoms of a UTI. Non-specific symptoms which may indicate a UTI include:

- Acute change in mental status from baseline including acute onset, fluctuating course, inattention AND
- Either disorganized thinking or altered level of consciousness

For residents with non-specific symptoms (as above) and unless medical status is declining rapidly, PUSH FLUIDS FOR 24 HRS and then REASSESS:

- If typical symptoms develop, treat as for UTI
- If non-specific symptoms continue without development of typical symptoms, consider an alternate diagnosis
- If symptoms resolve, no further intervention is required

#### (2) Practice Point

- Unless on fluid restriction
- Refer to "Urine Trouble" Handout CLI.8011.SG.001.SD.02 can be used for teaching residents and families.

### (3) Practice Point

- Antibiotic therapy may or may not be ordered depending on the medical status
- Clean catch or midstream or in and out catheterization should be used for urine C&S specimen collection
- For long term catheterized residents replace catheter and collect urine specimen
- Urine specimens should be collected BEFORE antibiotic therapy is initiated
- Urine specimens collected via UriSwab® should be kept at room temperature and received by the Lab ideally within 4 hours
- CrCl values should be reviewed to ensure therapy appropriate for renal function.

#### (4) Practice Point

- Bacterial count ≥108 cfu/L is significant
- More than 3 organisms usually indicates contamination
- Clinical correlation is necessary for a diagnosis of UTI

NOTE: Repeat C&S after antibiotic therapy is NOT necessary unless typical UTI signs & symptoms persist.

Adapted from Alberta Health Services Seniors Health/Toward Optimizing Practice (TOP)

<sup>\*</sup>Accreditation CA Required Organizational Practice: The organization has a program for antimicrobial stewardship to optimize antimicrobial use.



Recommended Treatment Regimens for Acute UTIs in the Elderly

Uncomplicated and Complicated UTIs (men, diabetics, symptoms greater than seven days)			
TMP / SMX	1 DS tab PO BID	7 days	Pre-treatment urine cultures are recommended.
	CrCl 15-30 mL/min: 1/2 dose CrCl < 15 mL/min: avoid		
Or Nitrofurantain*	50 – 100mg PO QID	7 days	TMP /SMX has no activity against
Nitrofurantoin*	CrCl < 40-60 mL/min: avoid		Enterococcusi spp or Group B Streptococci.
<u>Alternative</u>	250mg (uncomplicated)	7 days	Residents with diabetes are predisposed to UTI with
Ciprofloxacin	500mg (complicated)		Group B Streptococci.
	PO BID CrCl ≤ 30 mL/min: max		*Nitrofurantoin should not be used if CrCl is less than 60
	500mg/day		mL/min.
2. Chronic Catheterization: Asymptomatic			
Antibiotic therapy is not beneficial in this population, may adversely affect resident outcomes, and may promote the emergence of organisms of increased resistance. Only treat symptomatic episodes of UTI in this resident population. See Section 4.			
3. Abnormality of the Urinary Tract			
<ul><li>Anatomical</li><li>Functional</li></ul>			
> Metabolic			
Ciprofloxacin	500mg PO BID	10-14 days	Pre-treatment urine cultures are recommended. Post-treatment cultures are not recommended unless symptoms persist or recur.
<u>Alternative</u>			Note: administration of IV antibiotics may require transfer
Ampicillin PLUS	1g IV q 6h PLUS	10-14 days	to an acute care facility. Because of potential for resistant organisms, it is important to modify empiric therapy to
Gentamicin	2mg/kg IV q 12h*	10-14 days	most narrow spectrum option based on C&S results.
			* Dosing interval needs to be adjusted based on renal function. Consult with Pharmacy recommended
4. Chronic Catheterization: Symptomatic			
Catheter should be changed and urine specimen should be obtained through the newly placed catheter before starting antibiotics.			
Ciprofloxacin	500mg PO bid	10-14 days	Ciprofloxacin has unreliable activity against <i>Enterococcus spp.</i>
Or Amayiaillin alayulanata	500ma DO tid	10 14 days	
Amoxicillin- clavulanate	500mg PO tid	10-14 days	Amoxicillin-clavulanate has no activity again Pseudomonas.
5. Pyelonephritis: Complicated			
> Consult with Pharmacy recommended			
Refer to Diagnosis and Management of UTIs in LTC Clinical Guideline CLI.8011.PL.002, Table 5.			