Algorithm for Suspected Urinary Tract Infection with Moderate to Advanced Dementia

TRAIN-AD

Training to Reduce Antimicrobial use In Nursing home residents with Alzheimer's disease and other Dementias

Algorithm is meant as a guideline. Work-up and treatment should be conducted at the discretion of the primary care provider.

*Residents with advanced dementia may be unable to communicate dysuria, pain, or urgency. The presence or absence of cloudy or odorous urine alone should not be used as an indication to send a urine specimen or start antimicrobials.

One of the following?
1. Dysuria or 2. Fever[1]
AND one of the following
urgency, frequency, suprapubic pain, hematuria, costovertebral angle tenderness, urinary incontinence

NO

FOLEY CATHETER?

YES

One of the following?
1. Fever[1]
2. Costovertebral tenderness
3. Rigors (shaking chills)
4. Delirium[2]

NO → Do not send urine specimen

YES

NO → Do not send urine specimen

YES

Signs/symptoms of non-urinary tract infection

YES → Do not send urine specimen Evaluate for other infection

NO

Minimal criteria for the initiation of antimicrobials ARE met[3]

Patient preferences include use of antimicrobials?

YES

NO → Do not send urine specimen or start antimicrobials

Send urine for urinalysis and culture (pending)[3]

U/A Positive[4], Culture Negative	U/A Positive[4], Culture Positive[5]	U/A Negative, Culture Positive[5]
Do not start (continue) antimicrobials	Start (continue) antimicrobials	Do not start (continue) antimicrobials

1 Fever Criteria: >100°F [37.8°C], repeat temp >99F [37.2C], or 2.0°F [1.1°C] above baseline)

2 The Confusion Assessment Method criteria for delirium requires the following: 1. acute change in mental status with fluctuating course, 2. inattention and 3. EITHER disorganized thinking OR altered level of consciousness. A behavior change (e.g., agitation) alone does not meet criteria for delirium.

3 Antimicrobials may be initiated empirically while urine specimen results are pending.

4 Positive urinalysis => 10,000 white blood cells/L OR positive dipstick = positive white blood cells, leukocyte esterase or nitrites

5 Positive urine culture: no foley => 105 cfu/ml of at least one bacterial organism; foley => 103 cfu/ml

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