Is the resident symptomatic? (See next page symptomatic vs asymptomatic)

Is there an individualised care plan that covers this scenario?

Assess and record baseline observations & new or worse signs and symptoms

Do signs and symptoms meet definition for urinary tract infection?
The resident has at least 3 of the following signs and symptoms:
- Fever (> 38°C) or chills
- New or increased burning or pain on urination, frequency or urgency
- New flank or suprapubic pain or tenderness
- Change in character of urine
- Worsening of mental or functional status
- Chronic UTI may be asymptomatic until signs of renal failure become apparent

(see next page)

Results of Urine Analysis

Positive
Greater than 10^5 colony forming units/ml or pending

Symptomatic
Meets definition for UTI
Commence treatment

NO
Consider other causes

Is there an individualised care plan that covers this scenario?

NO
Consider other causes

Initiate collection of MSU or clean catch urine specimen AND contact GP to discuss assessment

Implement care plan

Discuss possible care plan with GP. Consider risks and resident goals. (See next page for possible options)
**IS THE RESIDENT SYMPTOMATIC?**

Urinary tract infection is the most common bacterial infection in residents in residential care facilities. Asymptomatic bacteriuria is not treated with antibiotics except in special circumstances e.g. prior to surgery where it may increase post operative risk. There is no discernible benefit to the resident (when there is bacteria in the urine without symptoms) and there are risks of antimicrobial resistance and drug reactions.

**Definition of Urinary Tract Infection:**
- Include only symptomatic urinary tract infections.
- Surveillance of asymptomatic bacteriuria is not recommended as this represents a baseline status for many residents.

**Symptomatic UTI:**

One of the following criteria must be met:

1. **The resident does not have an indwelling urinary catheter and has at least 3 of the following signs and symptoms:**
   - Fever (above 38 °C) or chills
   - New or increased burning pain on passing urine, frequency or urgency
   - New flank or supra-pubic pain or tenderness
   - Change in character of urine
   - Worsening mental or functional status (may be increased or new incontinence)

2. **The resident has an indwelling catheter and has at least 2 of the following signs and symptoms:**
   - Fever (above 38 °C) or chills
   - New flank or supra-pubic pain or tenderness
   - Change in character of urine
   - Worsening mental or functional status

Care should be taken to rule out other causes of these symptoms.

**CONSIDER OTHER CAUSES**

If there are 2 or more symptoms of non-urinary infection do not order a urine culture.

**COLLECTION OF MSU**

- A urine specimen can take some time to collect. Alerting staff as soon as a UTI is suspected will assist in getting a specimen before any treatment is started. A urine specimen should always be obtained prior to treatment because a negative urine culture is useful to exclude UTI.
- A positive urine culture will show the micro-organism’s sensitivity to antibiotics allowing for judicious prescribing. Antimicrobial resistance is becoming increasingly problematic in residential care increasing the importance of optimising antimicrobial therapy.

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**TREATMENT OPTIONS**

- Treatment options need to be individualised for each resident. Deciding when to start antibiotics can be challenging. Possible treatment may include:

  1. Resident symptomatic but not unwell: Wait for urine result but continue to monitor
  2. Resident symptomatic and unwell: To be seen by GP within agreed timeframe
  3. Resident critically unwell or deteriorating rapidly: Call ambulance to transfer to acute care and complete transfer documentation
  4. Eligible for phone order: Treat serious infection on site

**Preventative strategies may include:**

- Adequate hydration to meet daily requirements.
- Attention to perineal hygiene and continence management.
- Cranberry capsules to reduce E.coli adherence to the bladder wall.
- Avoid catheterisation.
- Consider atrophic vaginitis and oestrogen cream treatment if resident continues to suffer multiple UTIs.

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Continue to monitor resident in all cases for change in status and act accordingly. Consider risks, care plan, previous allergies and treatment history, communication with EPOA, welfare guardian, representative.