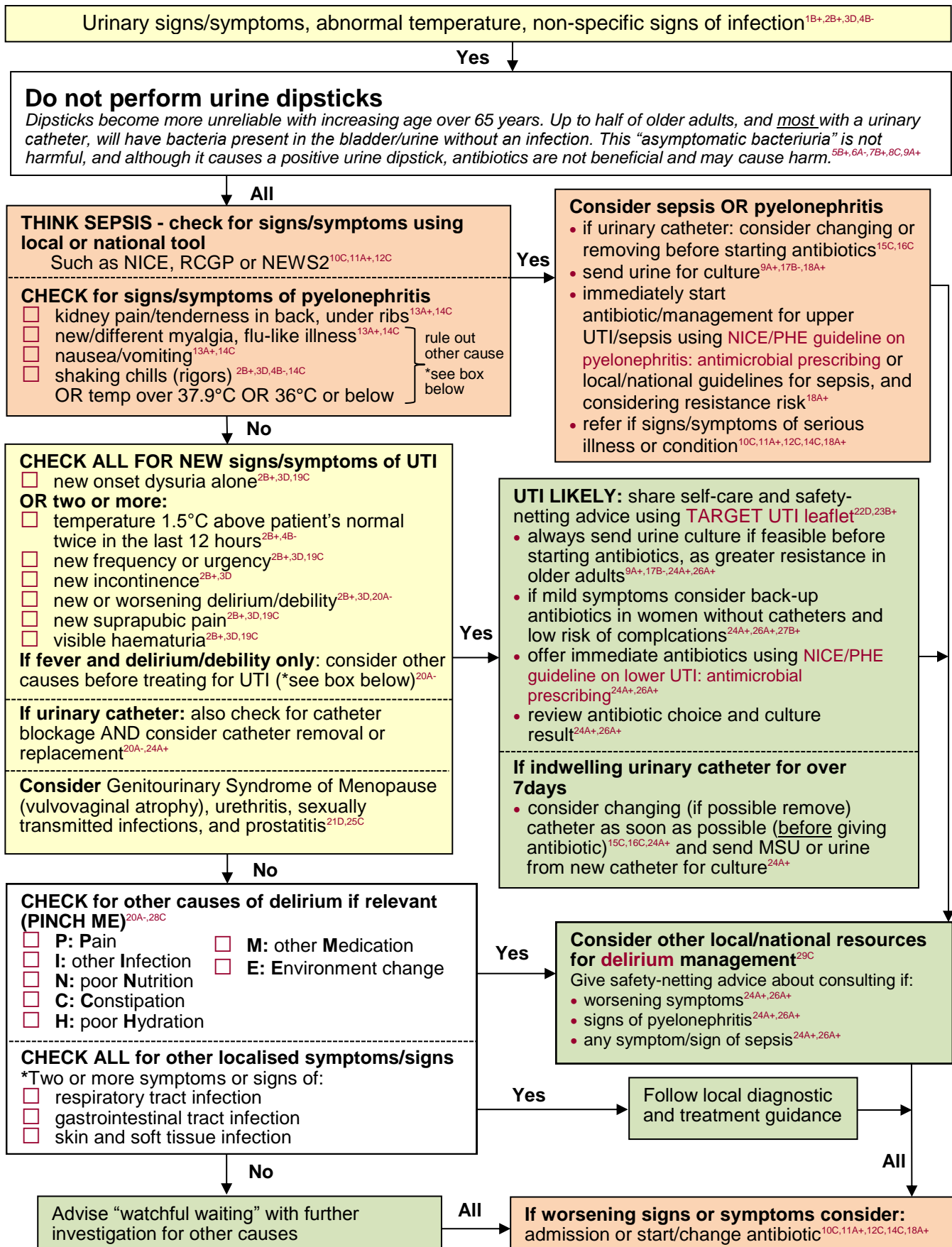


## Flowchart for men and women over 65 years with suspected UTI



Key:	Suspected sepsis alert	UTI symptom	Action advised	Other advice
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## Table summary of flowchart for those over 65 years with suspected UTI

### Men and women over 65 years may present with:

- localised signs or symptoms of a UTI including new onset dysuria; incontinence; urgency<sup>1B+</sup>
- temperature: 38°C or above; 36°C or below; 1.5°C above normal twice in the last 12 hours<sup>2B+,3D,4B-</sup>
- non-specific signs of infection: for example delirium; loss of diabetic control<sup>2B+,3D,4B-,20A-,30D,31D</sup>

### Do not perform urine dipstick as they become more unreliable with increasing age over 65 years

- up to half of older adults in long term care facilities, and most of those who have had a urinary catheter for over 30 days, will have bacteria present in the bladder/urine without an infection<sup>8C</sup>
- this so called asymptomatic bacteriuria is not harmful, and although it causes a positive urine dipstick, antibiotics are not beneficial<sup>5B+,6A-,7B+,8C, 9A+</sup>

### Use symptoms and signs to determine the most appropriate management

**First think sepsis:** check for signs using local or national tool such as NICE, RCGP or NEWS2<sup>10C,11A+,12C</sup>

#### Exclude pyelonephritis checking for any 1 sign:

- kidney pain/tenderness in back, under ribs<sup>13A+,14C</sup>
- new/different myalgia, or flu-like symptoms<sup>1B+,14C</sup>
- nausea/vomiting<sup>1B+,14C</sup>
- shaking chills (rigors) or temp over 37.9°C or 36°C or below<sup>2B,3D,4B,14C</sup>

#### If signs of sepsis or pyelonephritis

(if no kidney pain rule out other localised infection \*see symptoms of other infection box below):

- if urinary catheter for more than 7 days: consider changing or removing as soon as possible and before starting antibiotics<sup>15C,16C</sup>
- send urine for culture<sup>9A+,17B-,18A+</sup>
- assess antibiotic resistance risk and immediately start antibiotic for upper UTI/sepsis **using NICE/PHE guideline on pyelonephritis: antimicrobial prescribing** or local/national guidelines for sepsis<sup>18A+</sup>
- refer if signs or symptoms of serious illness or condition<sup>10C,11A+,12C,14C,18A+</sup>

#### Then check all for **NEW URINARY symptoms/signs**

- NEW onset dysuria alone<sup>2B,3D,19C</sup>
- OR 2 or more new:
  - temperature: 1.5°C above normal twice in the last 12 hours<sup>2B+,4B-</sup>
  - new frequency or urgency<sup>2B+,3D,19C</sup>
  - new incontinence<sup>2B+,3D</sup>
  - new or worsening delirium/debility<sup>2B+,3D,20A-</sup>
  - new suprapubic pain<sup>2B+,3D,19C</sup>
  - visible haematuria<sup>2B+,3D,19C</sup>

If fever and delirium/debility only: consider other infections before treating for UTI<sup>20A-</sup>

#### If urinary symptoms suggest UTI:

- always send urine culture if feasible, as greater resistance in older adults<sup>9A+,17B-,24A+</sup>
- if mild symptoms consider back-up antibiotics in women without catheters and low risk of complications<sup>24A+,25A+,26B+</sup>
- consider immediate antibiotics for lower UTI<sup>24A+,25A+</sup>
- for antibiotic choice use **NICE/PHE guideline on lower UTI: antimicrobial prescribing**, and consider antibiotic resistance risk using patient history<sup>24A+,25A+</sup>

#### If indwelling URINARY CATHETER for over 7 days:

- check for catheter blockage AND consider catheter removal<sup>20A-</sup>
- if treating for a UTI consider changing or removal as soon as possible and before giving antibiotic<sup>15C,16C,24A+</sup>
- send sample from mid-stream urine or urine from new catheter<sup>24A+</sup>

**Consider:** Genitourinary Syndrome of Menopause (vulvovaginal atrophy) as can present with dysuria.<sup>21D</sup>  
Also consider risk of urethritis, prostatitis or STI<sup>13A+</sup>

#### Check all for 2 or more signs or symptoms suggesting **other** infection<sup>20A-</sup>

- respiratory tract infection: shortness of breath; cough or sputum production; new pleuritic chest pain<sup>3D</sup>
- gastrointestinal tract infection: nausea/vomiting; new abdominal pain; new onset diarrhoea<sup>32C,33C</sup>
- skin and soft tissue infection: new redness; warmth<sup>3D</sup>

Follow diagnostic and treatment guidance if infection suspected

#### Check all for other causes of **DELIRIUM (PINCH ME)** and manage as needed<sup>20A-,27C</sup>

- |                                                    |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> <b>P:</b> Pain            | <input type="checkbox"/> <b>M:</b> other Medication | <ul style="list-style-type: none"> <li>• using PINCH ME can help identify other potential underlying causes of delirium superimposed on dementia. It can be used in different clinical settings<sup>28C</sup></li> <li>• consider other local/national resources for <b>delirium</b> management<sup>29C</sup></li> <li>• <b>Advise watchful waiting, with further investigation if needed</b></li> </ul> |
| <input type="checkbox"/> <b>I:</b> other Infection | <input type="checkbox"/> <b>E:</b> Environment      |                                                                                                                                                                                                                                                                                                                                                                                                          |
| <input type="checkbox"/> <b>N:</b> poor Nutrition  | change                                              |                                                                                                                                                                                                                                                                                                                                                                                                          |
| <input type="checkbox"/> <b>C:</b> Constipation    |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                          |
| <input type="checkbox"/> <b>H:</b> poor Hydration  |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                          |

#### Share self-care and safety-netting advice using **TARGET UTI leaflet for older adults**

##### Safety-netting advice

- worsening symptoms<sup>24A+,25A+</sup>
- signs of pyelonephritis<sup>24A+,25A+</sup>
- signs/symptoms of sepsis<sup>24A+,25A+</sup>

##### Self-care advice

- drink enough fluids to avoid feeling thirsty and to keep urine pale<sup>25D,34C,35C</sup>
- taking paracetamol regularly up to 4 times daily for relief of pain or fever<sup>22D,23B+</sup>
- ways of preventing further episodes of UTI

**Please refer to the information and reference tables in joint NICE/PHE guidance: NICE guidelines on UTI (lower): antimicrobial prescribing** or **NICE guidelines on pyelonephritis (acute): antimicrobial prescribing**