

Guidance on Prevention and Early Detection of Urinary Tract Infection (UTI) in Older People in Care Homes

The purpose of this guidance is to support care home staff to identify and report signs of UTI in care home residents. This guidance also highlights the importance of preventing UTI in the first place. UTI is a common infection in care home residents. It is more common amongst women than men, with almost half of all women reporting at least one episode during their lifetime^{1,2}.

Care home:	Name of resident:	Date of birth:	Staff initials:	Date & time:
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Prevention of UTI^{1,2,3,4,5}

Good practice:

- | | | | |
|---|---|---|---|
| <input type="checkbox"/> Maintain good hand hygiene (resident and carer) | <input type="checkbox"/> Maintain adequate fluid intake | <input type="checkbox"/> Regular toileting | <input type="checkbox"/> Avoid constipation |
| <input type="checkbox"/> Practice healthy bladder habits (empty fully when passing urine) | <input type="checkbox"/> After urination, wipe from front to back | <input type="checkbox"/> Maintain good perineal hygiene | <input type="checkbox"/> Maintain good catheter hygiene |

Early Detection of UTI^{1,3,4,5}

To be carried out by the care home staff. Complete Appendix 1 (overleaf), and then keep it in the resident's record in the care home

A UTI is likely if the resident has ANY of the following signs and symptoms of UTI. (Care home staff to tick all that apply to the resident):

- | | |
|--|--|
| <input type="checkbox"/> New or worsening confusion or agitation
<input type="checkbox"/> Change in urinary odour
<input type="checkbox"/> Pain on urination [‡]
<input type="checkbox"/> Urgent need to urinate [‡]
<input type="checkbox"/> New or worsening urinary incontinence [‡] | <input type="checkbox"/> New pain on side of body or above pubic bone or central low back [‡]
<input type="checkbox"/> Shaking or chills
<input type="checkbox"/> Loss of appetite / reluctance to drink
<input type="checkbox"/> Frequent need to urinate [‡]
<input type="checkbox"/> Visible blood in urine or cloudy urine
<input type="checkbox"/> Abnormal temperature above 37.9°C or under 36°C (enter reading) -----°C |
|--|--|

[‡]Applicable to ambulatory non-catheterised residents who use a toilet or commode

Perform a dipstick test (Multistix[®] 10 SG Urine Reagent Strips) using a Clean Catch method[‡] if any ONE of the signs and symptoms are present.

Record the result: Leukocytes: Positive Trace Negative Nitrites: Positive Negative Blood: Positive Trace Negative

Dipstick test not performed because (enter reason): Do not perform a dipstick test for catheterised patients⁹.

Report the following to the resident's **General Practitioner (GP) in-hours** OR to **111 out-of-hours**:

- which signs and symptoms of UTI are present
- whether the dipstick test result was positive or negative or had blood

Record response from the GP or 111 and act upon the advice:

Obtain a Clean Catch urine sample and send to the GP for further tests Await GP visit (for full clinical assessment⁶)

Collect prescription for antibiotic from GP practice GP decision: No action required because (enter reason)..... (enter GP name).....

[‡]Method to obtain a "Clean Catch" urine sample to perform a dip stick test or to send a urine sample to the GP for further test^{6,7,8}:

1. Wash hands and use Personal Protective Equipment (PPE)
2. Clean toilet seat with bactericide top/ bottom (under the lid)
3. Place a clean container (bed pan, disposable hat/ bowel/ urinal) in the toilet and put the seat down
4. Replace PPE and clean perianal area, rinse and dry thoroughly
5. Sit the resident on toilet to pass urine into the clean container
6. Replace PPE and pour urine into collection container
7. Follow the manufacturer's instructions and dip the dipstick in urine sample
8. Record the test result
9. Obtain a second Clean Catch urine sample if requested by the GP for further tests

References:

1. Scottish Medicines Consortium Decision aid for diagnosis and management of suspected urinary tract infection (UTI) in older people. NHS Scotland May 2013
2. Patient UK: <http://www.patient.co.uk/doctor/urinary-tract-infection-in-adults> (accessed 27/5/14)
3. SIGN GUIDANCE 88 July 2012
4. HPA guidance on diagnosis of UTI 2011. URL: www.hpa.org.uk/web/HPAwebFile/HPweb-C1194947404720. (accessed 15/05/14)
5. Juthani-Mehta M. Clinical Features to Identify UTI in nursing home resident: A cohort study. J Am Geriatric Soc. 2009; 57(6):963-970
6. Urine collected from Diapers can be used for 2-dimensional polyacrylamide gel electrophoresis (2D-PAGE) in infants and young children. Proteomics Clin Appl. 3(8): 989-999. August 2009.
7. URL:http://www.itesting.com/ait_nextgen-skillsmodules/content/specimen-collection-new/acceptedpractice/urine.html accessed 17/6/14
8. <http://www.nursingtimes.net/Journals/2013/04/10/uk/060509Obtaining-a-catheter-specimen-of-urine.pdf>
9. NICE Draft Quality Standard for Urinary Tract Infection in adults. November 2014

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Appendix 1: UTI Symptoms Record Sheet

To be carried out and completed by the care home staff, then kept in the resident's record in the care home

Care home: _____ Name of resident: _____ Date of birth: _____

Episode No.	Record the date and signs and symptoms of UTI	Record the date and result of dipstick test	Report to GP (in-hours) or 111 (out-of-hours)	Record GP or 111 response (Tick all that apply to the resident)	Staff action upon GP or 111 advice (Tick all that apply to the resident and enter the date)
1.	<p>Date:</p> <p>Symptoms (tick all that apply to the resident):</p> <ul style="list-style-type: none"> <input type="checkbox"/> New or worsening confusion or agitation <input type="checkbox"/> Change in urinary odour <input type="checkbox"/> Pain on urination[‡] <input type="checkbox"/> Urgent need to urinate[‡] <input type="checkbox"/> New or worsening urinary incontinence[‡] <input type="checkbox"/> New pain on side of body or above pubic bone or central low back[‡] <input type="checkbox"/> Shaking or chills <input type="checkbox"/> Loss of appetite / reluctance to drink <input type="checkbox"/> Frequent need to urinate[‡] <input type="checkbox"/> Visible blood in urine or cloudy urine <input type="checkbox"/> Abnormal temperature above 37.9°C or under 36°C (enter reading) -----°C <p>[‡]Applicable to ambulatory non-catheterised residents who use a toilet or commode</p>	<p>Date:</p> <p>Result:</p> <p>Leukocytes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Positive <input type="checkbox"/> Trace <input type="checkbox"/> Negative <p>Nitrites:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Positive <input type="checkbox"/> Negative <p>Blood</p> <ul style="list-style-type: none"> <input type="checkbox"/> Positive <input type="checkbox"/> Trace <input type="checkbox"/> Negative <p>Test not performed (enter reason).....</p>	<ul style="list-style-type: none"> <input type="checkbox"/> signs and symptoms of UTI <input type="checkbox"/> dipstick test result (if performed) 	<ul style="list-style-type: none"> <input type="checkbox"/> Obtain a Clean Catch urine sample and send to the GP for further tests <input type="checkbox"/> Await GP visit (for full clinical assessment) <input type="checkbox"/> Collect prescription for antibiotic from GP practice <input type="checkbox"/> GP decision: No action required because: (enter reason)..... (enter GP name)..... 	<ul style="list-style-type: none"> <input type="checkbox"/> Obtained a Clean Catch urine sample and sent to the GP for further tests. Date: <input type="checkbox"/> GP visited (for full clinical assessment). Date:GP name: <input type="checkbox"/> Collected prescription for antibiotic from GP practice (date): <input type="checkbox"/> Antibiotic started (date): Symptoms improved after 24 hours of antibiotic initiation: YES / NO If YES, complete antibiotic course If NO, contact GP or 111 <p>Staff Initials:</p>
2.	<p>Date:</p> <p>Symptoms (tick all that apply to the resident):</p> <ul style="list-style-type: none"> <input type="checkbox"/> New or worsening confusion or agitation <input type="checkbox"/> Change in urinary odour <input type="checkbox"/> Pain on urination[‡] <input type="checkbox"/> Urgent need to urinate[‡] <input type="checkbox"/> New or worsening urinary incontinence[‡] <input type="checkbox"/> New pain on side of body or above pubic bone or central low back[‡] <input type="checkbox"/> Shaking or chills <input type="checkbox"/> Loss of appetite / reluctance to drink <input type="checkbox"/> Frequent need to urinate[‡] <input type="checkbox"/> Visible blood in urine or cloudy urine <input type="checkbox"/> Abnormal temperature above 37.9°C or under 36°C (enter reading) -----°C <p>[‡]Applicable to ambulatory non-catheterised residents who use a toilet or commode</p>	<p>Date:</p> <p>Result:</p> <p>Leukocytes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Positive <input type="checkbox"/> Trace <input type="checkbox"/> Negative <p>Nitrites:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Positive <input type="checkbox"/> Negative <p>Blood</p> <ul style="list-style-type: none"> <input type="checkbox"/> Positive <input type="checkbox"/> Trace <input type="checkbox"/> Negative <p>Test not performed (enter reason).....</p>	<ul style="list-style-type: none"> <input type="checkbox"/> signs and symptoms of UTI <input type="checkbox"/> dipstick test result (if performed) 	<ul style="list-style-type: none"> <input type="checkbox"/> Obtain a Clean Catch urine sample and send to the GP for further tests <input type="checkbox"/> Await GP visit (for full clinical assessment) <input type="checkbox"/> Collect prescription for antibiotic from GP practice <input type="checkbox"/> GP decision: No action required because: (enter reason)..... (enter GP name)..... 	<ul style="list-style-type: none"> <input type="checkbox"/> Obtained a Clean Catch urine sample and sent to the GP for further tests. Date: <input type="checkbox"/> GP visited (for full clinical assessment). Date:GP name: <input type="checkbox"/> Collected prescription for antibiotic from GP practice (date): <input type="checkbox"/> Antibiotic started (date): Symptoms improved after 24 hours of antibiotic initiation: YES / NO If YES, complete antibiotic course If NO, contact GP or 111 <p>Staff Initials:</p>
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If a resident has 2 or more episodes of UTI in 6 months OR 3 or more episodes of UTI in 12 months care home staff to contact GP for further investigation