




Urinary tract infection

Urinary tract infection (UTI) is a common presentation in Australian general practice, comprising about 1% of all problems managed. The presentation of UTIs is highly variable, ranging from mild dysuria to severe sepsis, and masquerades are not uncommon. The approach to investigation and management depends on the patient's age, gender, co-morbidities and presentation. GP registrars are likely to have seen many presentations of UTI in their ED experience, but are often less confident on the approach to investigation, and management of recurrent or complicated infection.

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|--|---|-------------|--|---------------|--|
| TEACHING AND LEARNING AREAS  | <ul style="list-style-type: none"> • Risk factors for UTI • Clinical manifestations of UTI, including symptoms and signs suggesting a complicated UTI • Differential diagnosis of UTI • Indications for investigation • Approach to management, including complicated and recurrent UTIs • Indications for referral, and local referral pathways • Approach to UTIs in children and the elderly | | | | |
| PRE-SESSION ACTIVITIES | <ul style="list-style-type: none"> • Read the Therapeutic Guidelines chapter on UTI | | | | |
| TEACHING TIPS AND TRAPS  | <ul style="list-style-type: none"> • Presentations of UTI in young children and the elderly are often very non-specific • Beware chlamydial urethritis presenting with dysuria • Make an abdominal examination part of the routine assessment of probable UTI • Consider prostatitis as a cause of UTI in men • Sterile pyuria requires further investigation for other causes • Recent evidence supports a more conservative approach of self-care (fluids and paracetamol) and a back up script for antibiotics in uncomplicated UTI in non-pregnant women under 65 years • Don't screen for UTI in the asymptomatic elderly • Consider imaging in all adult men with a UTI • Use Therapeutic Guidelines to guide choice of appropriate antibiotic • Don't use antibiotics in asymptomatic bacteriuria (unless pregnant or undergoing a urological procedure) - Choosing Wisely recommendation • In children and elderly patients, presentations are often non-specific and misdiagnosis is common • There is limited evidence for cranberries in the treatment or prevention of UTIs | | | | |
| RESOURCES  | <table border="1"> <tbody> <tr> <td data-bbox="328 1798 435 1935">Read</td> <td data-bbox="435 1798 1498 1935"> <ul style="list-style-type: none"> • AFP article (2016) – Paediatric urinary tract infections: Diagnosis and treatment • 2020 BJGP article – Natural history of uncomplicated urinary tract infection without antibiotics: a systematic review </td> </tr> <tr> <td data-bbox="328 1935 435 2002">Listen</td> <td data-bbox="435 1935 1498 2002"> <ul style="list-style-type: none"> • ABC Radio National podcast - Busting the cranberry myth for UTIs </td> </tr> </tbody> </table> | Read | <ul style="list-style-type: none"> • AFP article (2016) – Paediatric urinary tract infections: Diagnosis and treatment • 2020 BJGP article – Natural history of uncomplicated urinary tract infection without antibiotics: a systematic review | Listen | <ul style="list-style-type: none"> • ABC Radio National podcast - Busting the cranberry myth for UTIs |
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| FOLLOW UP/ EXTENSION ACTIVITIES | <ul style="list-style-type: none"> • Registrar to undertake the Clinical Reasoning Challenge and discuss • Registrar to contact the local pathology company to get data on local antibiotic resistance patterns for UTIs | | | | |

Urinary tract infection

Clinical Reasoning Challenge

Francis is a 33 year old childcare worker who presents with a two day history of worsening dysuria and frequency. She has no significant PMHx and is on no medications.

QUESTION 1. What other key features should be sought on history? List the most important features.

- 1 _____
- 2 _____
- 3 _____
- 4 _____
- 5 _____

Further enquiry reveals no significant history.

Urinary dipstick is positive for blood, leucocytes and nitrites, and you make a diagnosis of an uncomplicated UTI.

QUESTION 2. What are the most important initial aspects of management? List as many aspects of management as appropriate.

- 1 _____
- 2 _____
- 3 _____
- 4 _____
- 5 _____
- 6 _____

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ANSWERS

QUESTION 1

What other key features should be sought on history? List the most important features.

- Other symptoms of possible UTI e.g. haematuria, pelvic or flank pain, fever
- Previous UTIs
- Symptoms of STI e.g. vaginal d/c, dyspareunia
- Sexual history e.g. new partner, UPI, contraception, pregnancy risk
- Allergies

Further enquiry reveals no significant history.

Urinary dipstick is positive for blood, leucocytes and nitrites, and you make a diagnosis of an uncomplicated UTI.

QUESTION 2

What are the most important initial aspects of management? List as many aspects of management as appropriate.

- Education re cause, management and prevention
- Send away formal MSU
- Urinary alkalinisation
- Fluids++
- Shared decision making with patient on role of antibiotics and potentially deferring treatment until after a trial of 'self care'
- Call for results/safety-netting