Recurrent UTIs in Women

Disclaimer

This pathway is for women who have ≥ 3 UTIs in one year or ≥ 2 UTIs in 6 months.

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**Practice point**

*Most women with recurrent UTIs can be managed in primary care with preventive strategies and/or prophylactic antibiotics. Investigations such as upper tract ultrasound and cystoscopy are not routinely required. If a complicated UTI is suspected, further assessment is warranted.*

**Assessment**

1. Take a targeted **history**.

**History**

- Urological history – stones, haematuria, surgery, lower urinary tract symptoms
- Pain
- Current pregnancy
- Number of UTIs in the past year

2. Perform an **examination**.

**Examination**

- Pelvic organ prolapse
- STIs
- Bacterial vaginosis

3. Arrange ultrasound kidney, ureter, bladder only if UTIs have been associated with:
   - previous urinary incontinence surgery.
   - any episode of urosepsis.
   - suspected renal stone e.g., loin pain or upper tract symptoms.
   - recalcitrant UTI with significant clinical symptoms that is not settling despite antibiotics.
   - urine culture shows *Proteus*, *Klebsiella*, or *Pseudomonas* infections as these are associated with a high risk of stones.
   - recurrent UTIs that are not responding to prophylactic antibiotics.
   - immunosuppressed or diabetic.
   - spinal cord injury.
   - history of urinary tract surgery.
   - history of childhood UTIs.
   - pregnancy.

**Management**

Asymptomatic bacteriuria occurs frequently and is not associated with increased morbidity. There is no benefit in treating asymptomatic bacteriuria except in pregnancy.

1. If the urinary tract is normal, reassure. Educate the patient that most recurrences are due to a reinfection rather than a relapse.
2. Repeat a mid-stream urine sample (MSU) every time the patient presents with a suspected UTI.
3. Aim management at preventive strategies rather than curative options. Reduce:
   - **bowel contamination**

**Reduce bowel contamination**
- Normalise the bowel habit as much as possible and avoid constipation.
- Treat faecal incontinence.

- **Infections related to intercourse**

**Reduce intercourse infections**
- Trial of a lubricant.
- Avoid the use of spermicides and diaphragms.

There is mixed evidence for the use of **cranberry products** in reducing the frequency or recurrence of UTIs.\(^1\)\(^2\)

**Cranberry products**
- Work by decreasing the adherence of E. coli to the bladder wall.
- Valid to trial in individual patients as no evidence of harm.
- Recommend this in tablet form due to the large sugar content in cranberry juice.

4. If postmenopausal women, **vaginal oestrogens** can reduce the risk of UTIs.

**Vaginal oestrogens**
- Oestriol (Ovestin) 0.1% cream applied topically to the urethra daily for 2 weeks, then twice weekly.
- Effective treatment for moderate to severe symptoms of vaginal atrophy.
- May improve continence by increasing periurethral soft tissue and improving coaptation of the tissues.
- No added progestin is required for endometrial protection.
- Contraindicated when there is undiagnosed vaginal or uterine bleeding, or endometrial cancer.
- Use of low-dose vaginal oestrogens in women who have had breast cancer is considered safe due to negligible systemic absorption, and generally the oestriol preparations are preferred.

5. Prophylactic antibiotics:
   - Treat if there is a clear association with an identified trigger e.g., **intercourse**.

**Intercourse**
*Take prophylactic antibiotic within 2 hours e.g., 150 mg trimethoprim, or 250 mg cephalexin.*

- Treat any current infection and confirm resolution of infection with MSU, followed by a course of **low dose prophylactic antibiotic**.

**Low dose prophylactic antibiotics**
- Guidelines suggest a 3 to 6 month course.\(^3\)
- Suitable antibiotics are 250 mg cephalexin at night, 150 mg trimethoprim daily (streamlined authority 4243 for either option).
- Avoid quinolones.
- Repeat as necessary.
• Consider giving patient a stand-by course of antibiotics for self-treatment. Arrange MSU and advise to return to general practice if symptoms persist for > 48 hours.
• If the patient develops a breakthrough infection:
  o stop prophylactic medication,
  o give a 2 week course of appropriate antibiotic, and
  o restart prophylactic medication.

6. If the patient wants to avoid long-term antibiotics, consider methenamine hippurate (Hiprex) or D-mannose.

D-mannose

- Competitively binds to E.coli.
- Unknown optimal dosing.
- Available as tablets and powders.
- Some evidence of decreased frequency of infections.

Methenamine hippurate (Hiprex)

- Acidifies urine and maintains low pH
- Antibacterial activity
- Short or long term treatment
- Assists in managing recurrent UTIs

7. Arrange urgent urology referral if:
   • previous urinary incontinence surgery.
   • any episode of urosepsis.
   • abnormal upper tract ultrasound or CT.
   • macroscopic haematuria.
   • spinal cord injury patient.

8. Arrange routine urology referral if:
   • history of urinary tract reflux.
   • lower urinary tract symptoms between episodes.
   • not responding to prophylactic antibiotics.
   • persistent bladder pain.
   • ≥ 3 UTIs in a year or ≥ 2 UTIs in 6 months.

9. In women with previous radiation treatment or pelvic cancer, and recurrent UTIs, arrange urgent urology referral for possible cystoscopy, as there is a risk of fistula formation, radiation cystitis, or transitional cell carcinoma.

Referral

• Arrange urgent urology referral if:
  o previous urinary incontinence surgery.
  o any episode of urosepsis.
  o recurrent UTIs in women with previous radiation treatment or pelvic cancer.
  o abnormal upper tract ultrasound or CT.
  o macroscopic haematuria.
  o spinal cord injury patient.
• Arrange routine urology referral if:
  o history of urinary tract reflux.
  o lower urinary tract symptoms between episodes.
  o not responding to prophylactic antibiotics.
  o persistent bladder pain.
  o ≥ 3 UTIs in a year or ≥ 2 UTIs in 6 months.

Information

For health professionals

Further information

➢ Australian Family Physician – Bacterial Cystitis in Women
➢ International Journal of General Medicine – Urinary Tract Infections in Women: Etiology and Treatment Options

For patients

Better Health Channel:

➢ Cystitis
➢ Urinary Tract Infections (UTI)

Sources

References


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