Helping patients avoid recurrent UTIs

Quick guide for nurses managing recurrent UTIs

UTI INFORMATION SERVICE

THE UROLOGY FOUNDATION

Quick reference guide for nurses

Helping patients avoid recurrent UTIs.
Definition of recurrent UTI is 2 episodes in 6 months or 3 episodes a year.

LEVEL 1 SELF-CARE & LIFESTYLE
Foundation advice for all patients

Hydration

- Encourage 1.5 -2 litres of water per day (unless fluid is restricted).
- Titrate intake to level of activity and individual needs.
- Urinate regularly - don't "hold on" for long periods.
- Double-voiding may help with incomplete emptying.
- Look at intake of caffeine and alcohol.

Toilet & hygiene habits

- Wipe front to back after urination.
- Urinate after sex.
- Avoid perfumed products in the genital area, including bubble bath, intimate sprays and scented wipes.
- Gently wash the vulva/genitals with warm water or a non-perfumed, pH-balanced cleanser or emollient based cleansers.

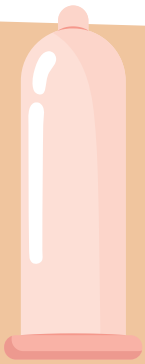
Clothing

- Recommend cotton underwear and loose-fitting clothes.
- Avoid tight trousers and synthetic fabrics.

Sexual Health

- Urinate after intercourse to help flush out bacteria.
- Use water-based lubricants if experiencing dryness, discomfort, or friction.

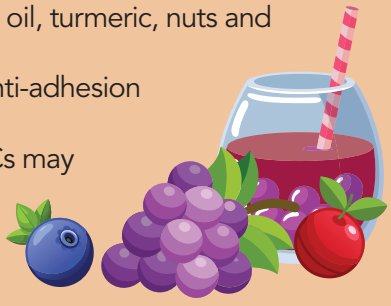
Contraception matters



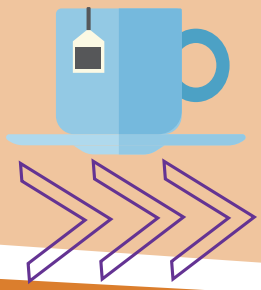
- Spermicides (e.g. on condoms or pessaries) can disrupt vaginal flora and increase UTI risk. Diaphragms may affect bladder emptying.
- Recommend non-spermicidal condoms or discuss alternatives if patterns suggest a link.
- Consider discussing intrauterine devices (IUDs) or other hormonal methods if appropriate - some individuals may find links between certain methods and symptoms, though evidence is mixed.
- Encourage open conversations around sex, comfort and UTI prevention.

Nutrition

- Eat a balanced, fibre-rich diet: wholegrains, fruits, vegetables, and legumes. This helps support a healthy and more diverse gut biome.
- Prevent constipation - support full bladder emptying.
- Reduce sugar and processed foods.
- Include anti-inflammatory foods: oily fish, berries, leafy greens, olive oil, turmeric, nuts and seeds.
- Add foods with anti-adhesion properties:
  Cranberries (PACs may prevent E. coli from sticking to the bladder wall), blueberries, pomegranate, green tea (antioxidant/anti-adhesion potential).



- Limit bladder irritants (if sensitive): caffeine, alcohol, acidic or spicy foods.



LEVEL 2 OVER-THE-COUNTER OPTIONS & SUPPLEMENTS

For patients needing more support beyond lifestyle advice.

Check with your patient what they are currently taking, or have tried in the past. It is always advised to try for a 6 month period, so some supplements could be revisited. Discuss levels of evidence, and no one size fits all.

- **D mannose** - A monosaccharide sugar e coli bacteria highly attracted to D mannose – free from major side effects. Occurs naturally in fruit such as apples peaches and cranberries.

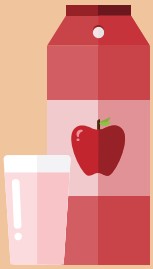
  No significant effect on insulin levels.

  Ecoli present on the bladder wall is highly attracted to the D Mannose. Research indicates that ecoli will attach to the D mannose and be excreted in the urine.

  Suggested dose (based on studies and patient feedback) During acute symptoms: up to 3g BD - can be divided up over the day. Prevention: 1-2g daily or BD - or increase to 1-2g BD after a potential trigger such as sex or early signs of a flare.

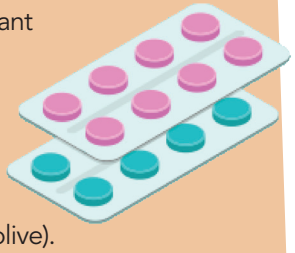
  Especially effective in E. coli-related UTIs. Powder or tablets.

- **Cranberry extract** - 36mg of PAC based on studies - cochrane review 2023 - women with recurrent UTIs - modest benefit.



- **Probiotics** - Current evidence insufficient for specific advice re dosage and route but Lactobaccilus products look promising in helping colonization of 'friendly bacteria' to benefit gut and vaginal biome.

  If taking a course of antibiotics – probiotic supplements are best taken 2 hours after.



- **Vitamin C** - 500-1000 mg /lower PH/ Nitrates may cause death of certain bacteria. Benefits proven in pregnant women.
- **Vitamin D3** - Helps innate immunity.
- **Oregano oil** - Antifungal, anti viral and anti bacterial effects. Pure oil needs to be diluted in a base oil (olive).
- **Vaginal moisturisers and lubricants** - Non-irritant, water-based are non-hormonal products designed to alleviate vaginal dryness by hydrating and maintaining the moisture of vaginal tissues. They can be used alongside vaginal oestrogen therapy in post menopausal women, especially if vaginal dryness persists.

- **Topical vulval gel** - contains a live bacterial strain (Bdellovibrio bacteriovorus), may help support the natural balance of bacteria around the vulval area and prevent the migration of bacteria from anus the vagina and urethra. No RCT evidence, current trials in progress.

LEVEL 3 PRESCRIBED PREVENTATIVE MEASURES

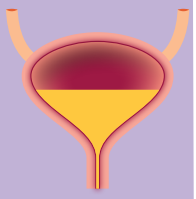
- **Antibiotic prophylaxis:** Post-coital or low-dose daily (based on cultures). Review at six months.
- **Methenamine Hippurate (Hiprex):** Non-antibiotic option. Requires acidic urine. Should now be widely available on prescription in primary care.

  Has antibacterial properties – hydrolyses to formaldehyde in acid urine – new standard first line option for recurrent UTI.
- **Topical Vaginal Oestrogen:** Can help restore healthy flora in the vagina increasing resistance to bacterial growth. Safe and effective for postmenopausal women and perimenopausal women with urinary symptoms.

LEVEL 4 SPECIALIST TREATMENTS (UROLOGY REFERRAL)

For complex, persistent, or treatment-resistant cases.

Bladder Instillations



- Sodium hyaluronate or chondroitin sulphate.
- Helps restore bladder lining in chronic/ recurrent UTI cases.
- Gentamicin - no systemic effects preventing AMR.
- Consider teaching self-administration through ISC.

Pelvic floor therapy & bladder retraining

- Refer to specialist pelvic health physiotherapy.
- Helpful where urgency, frequency, pain, or dysfunction co-exist.

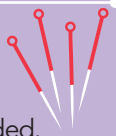
Specialist investigations

- Ultrasound, flow studies, cystoscopy.
- Consider IC, BPS, embedded UTI, or culture-negative presentations.

Specialist treatments

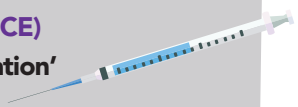
- RCT of intravesical treatments ongoing UK under bladder instillations

Acupuncture



- There is evidence to suggest that acupuncture can confer a benefit in recurrent UTIs, though more studies are needed.

LEVEL 5: FUTURE PROSPECTS (NOT YET ROUTINE IN UK PRACTICE)



- **UTI vaccines or 'immunomodulation'** - More RCT's needed.
  Not widely available. Available in some specialised UTI centres and in private clinics.
- **Phage therapy** - Research-based; potential for resistant infections. Phage therapy uses viruses called bacteriophages to target and kill specific bacteria. It's being explored as an option for antibiotic-resistant or chronic infections.
- **Microbiome therapies** - Future area of interest. Emerging evidence shows the vaginal, bladder, and gut microbiomes are interconnected. Studies are ongoing to explore their role in recurrent UTIs.

SPECIAL CONSIDERATIONS

Menopause & Perimenopause

- Decreased oestrogen increases vaginal pH and reduces protective flora. Recommend topical vaginal oestrogen to restore balance.
- Oestrogen may also enhance innate immune mechanisms against UTI
- Vaginal moisturisers can be used alongside oestrogen, especially if dryness or discomfort persists.
- Encourage open conversations about symptoms and support.

Midstream urine samples

- Emphasise the importance of collecting a good-quality midstream urine sample (MSU) for accurate diagnosis.
- **Provide clear instructions to patients:**
  - Clean around the urethra before collection.
  - Catch the sample mid-flow, not at the start or end.
  - Use a sterile container.

- Poor samples may lead to contamination or false results, delaying diagnosis and treatment.

Refer to our guide on collecting a mid-stream sample.

Self-Catheterisation (CISC/ISC)

- **Check technique:** Is the patient using a clean/no-touch method correctly? Review catheter: Is the length, coating, and charrière appropriate?
- **Assess frequency:**
  - Too often: May cause urethral irritation.
  - Not often enough: Risk of overdistension and UTI due to retained urine.
- **Ensure full emptying:**
  - Encourage the patient to take time, adjust position.
  - Use the correct catheter charrière for individual needs.
- **Avoid early removal:** Wait until urine flow has completely stopped.
- Hydration and symptom awareness remain key.

NURSE TOP TIPS

- **Ask the right questions:** Could it be urogenital atrophy (such as vaginal dryness, irritation, or thinning tissues), bladder pain syndrome, STI, or a non-infective cause such as overactive bladder, chemical irritation, or pelvic floor dysfunction?
- **Spot patterns:** Sex, hygiene, constipation, menopause.
- **Document history:** What has been tried, including OTC/self-care.
- **Refer when needed:** Red flags, Haematuria, unresolved symptoms, or complex needs.

For more detailed information on managing and treating UTIs, please refer to our specific treatment-focused information on our website:
https://www.theurologyfoundation.org/urology-health/bladder-conditions/urinary-tract-infections-uti/

For information on the references we have used and information on further reading please contact nurse@theurologyfoundation.org

Our confidential UTI Information Service is here to help you:

0808 801 1108 **Helpline open Tuesdays and Thursdays 10am - 12 noon**

nurse@theurologyfoundation.org

UTI INFORMATION SERVICE

THE UROLOGY FOUNDATION

www.theurologyfoundation.org

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