Catheter Management

Disclaimer

See also:
- Male Urethral Catheterisation
- Catheter Removal (Trial of Void) or Change

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Management

Consider indications for urological investigation

If patients have a longer term indwelling catheter (IDC) or supra-pubic catheter (SPC), refer for urological investigation if they present with haematuria, pain, increased episodes of bladder spasm, or recurrent UTIs.

1. Provide patient information for practical advice about how to take care of the catheter at home.

2. If blockage and encrustation:

Blockage and encrustation

- Is due to the precipitation of minerals, mucus, protein and bacteria onto the catheter.
- Occurs in 40 to 50% of long-term catheterised patients, and is often exacerbated by Proteus spp., infection and alkaline urinary pH.

- flush the catheter and encourage the patient to increase fluid intake.
- attempt a bladder washout, using warmed sterile saline.
- use a stiffer catheter e.g., silicone or a larger size (e.g., 18/20 Fr).
- try more frequent planned catheter changes.
- consider bladder ultrasound with catheter clamped to look for stones and bladder pathology.
3. If frequent blockages, try to establish a cause e.g., kinking, taping method, degraded catheter.

4. If bladder spasm, treat with anticholinergics and pain relief. Leakage around the catheter is caused by catheter blockage and bladder spasm.

**Common antimuscarinic medications (a type of anticholinergic)**

<table>
<thead>
<tr>
<th>Medication (Brand name)</th>
<th>Dose</th>
<th>Advantages</th>
<th>Disadvantages</th>
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</table>
| Oxybutynin (Ditropan)   | Tablets 2.5 to 5 mg, twice a day, titrating dose up to maximum of 5 mg, three times a day | • PBS listed  
• Rapid action – can be used intermitently | • Higher prevalence of dry mouth  
• Dry eyes  
• Dry mouth  
• Constipation  
• Blurred vision  
• Impaired alertness  
• Voiding difficulty |
| Transdermal oxybutynin (Oxytrol) | 3.9 mg patch twice weekly | • PBS listed  
• Dry mouth may be less common than with oral oxybutynin  
• Good for patients who don’t like tablets | • Application site reaction |
| Imipramine (Tofranil) | 10 to 25 mg at night | • PBS listed, useful for nocturia | • Hypotension, sedation and anticholinergic effects.  
• Long-acting (3 weeks) |
| Darifenacin (Enablex) | 7.5 to 15 mg daily | • Daily dosing  
• M3-selective  
• Minimal effect on cognition | • Non-PBS listed |
| Solifenacin (Vesicare) | 5 to 10 mg daily | • Daily dosing, reduced side-effects | • Non-PBS listed  
• May increase the QT interval, especially at high doses |
| Tolterodine (Detrusitol) | 1 to 2 mg, twice a day | • More selective for detrusor muscle than oxybutynin | • Non-PBS listed, twice daily dose |
5. If asymptomatic bacteriuria is found, there is no need for antibiotic treatment.
   - Do not routinely test urine in asymptomatic, catheterised patients.
   - Menthenamine hippurate (Hiprex) 1 g twice daily and cranberry supplements are not recommended for routine use in catheterised patients, but can be considered in patients with catheters who experience symptomatic UTIs.¹

6. If **catheter-acquired UTI**:  

   **Catheter-acquired UTI**
   - 100% of patients with long-term indwelling catheters have asymptomatic bacteriuria.²
   - Over time, microbial colonisation will become more complex and polymicrobial and a ‘biofilm’ is said to develop. Antibiotics will not clear an infection while the foreign body remains in situ but they do increase resistance.

   - with **symptomatic UTI** confirmed, change the catheter and start appropriate antibiotic treatment.

   **Symptomatic UTI**
   - Pain in bladder region, urethra, or flank
   - Fever
   - Chills
   - Malaise
   - Change in mental status such as confusion

   - consider [urgent or routine urology referral](#) to investigate cause of recurrent UTIs via urodynamic studies and imaging.

**Referral**

- Arrange [urgent or routine urology referral](#) if a patient with an IDC or SPC presents with any of:
  - Haematuria
  - Pain
  - Increased episodes of bladder spasm
  - Bladder stones or other bladder pathology on ultrasound
  - Recurrent UTIs

- If ongoing support is required, consider arranging an [adult continence referral](#).
References


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