Safer Care Victoria

VICTORIA State Government

October 2023

Protocol for Management of Urinary Tract Infections

Victorian Community Pharmacist Statewide Pilot

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Contents

1. About

This Protocol has been developed to provide pharmacists authorised under the Drugs, Poisons and Controlled Substances Regulations 2017 (the Regulations) a clear framework to supply the Schedule 4 poisons documented in this Protocol for the management of suspected urinary tract infections (UTI) under a structured prescribing arrangement. It is a requirement of the Secretary Approval: Community Pharmacist Statewide Pilot that pharmacists comply with this Protocol when supplying Schedule 4 poisons for treatment of suspected UTIs. It is also a requirement of the Secretary Approval: Community Pharmacist Statewide Pilot that pharmacists have completed the current training requirements specified in the departmental guidance before supplying Schedule 4 poisons.

Pharmacists authorised to supply Schedule 4 poisons under the Regulations must:

- Operate at all times in accordance with the Drugs, Poisons and Controlled Substances Act 1981, the Regulations and all other applicable Victorian, Commonwealth and national laws.
- At all times act in a manner consistent with the Pharmacy Board of Australia's (the Board) Code of Conduct and in keeping with other professional guidelines and policies as set out by the Board as applicable.

Pharmacists are also expected to exercise professional judgment in adapting treatment guidelines to presenting circumstances.

1.1. DEFINITIONS AND ACRONYMS

UTI: Urinary tract infection

STI: Sexually transmitted infection

Cystitis: Infection of the lower urinary tract (bladder and urethra in females)

2. Protocol for Management of Urinary Tract Infections

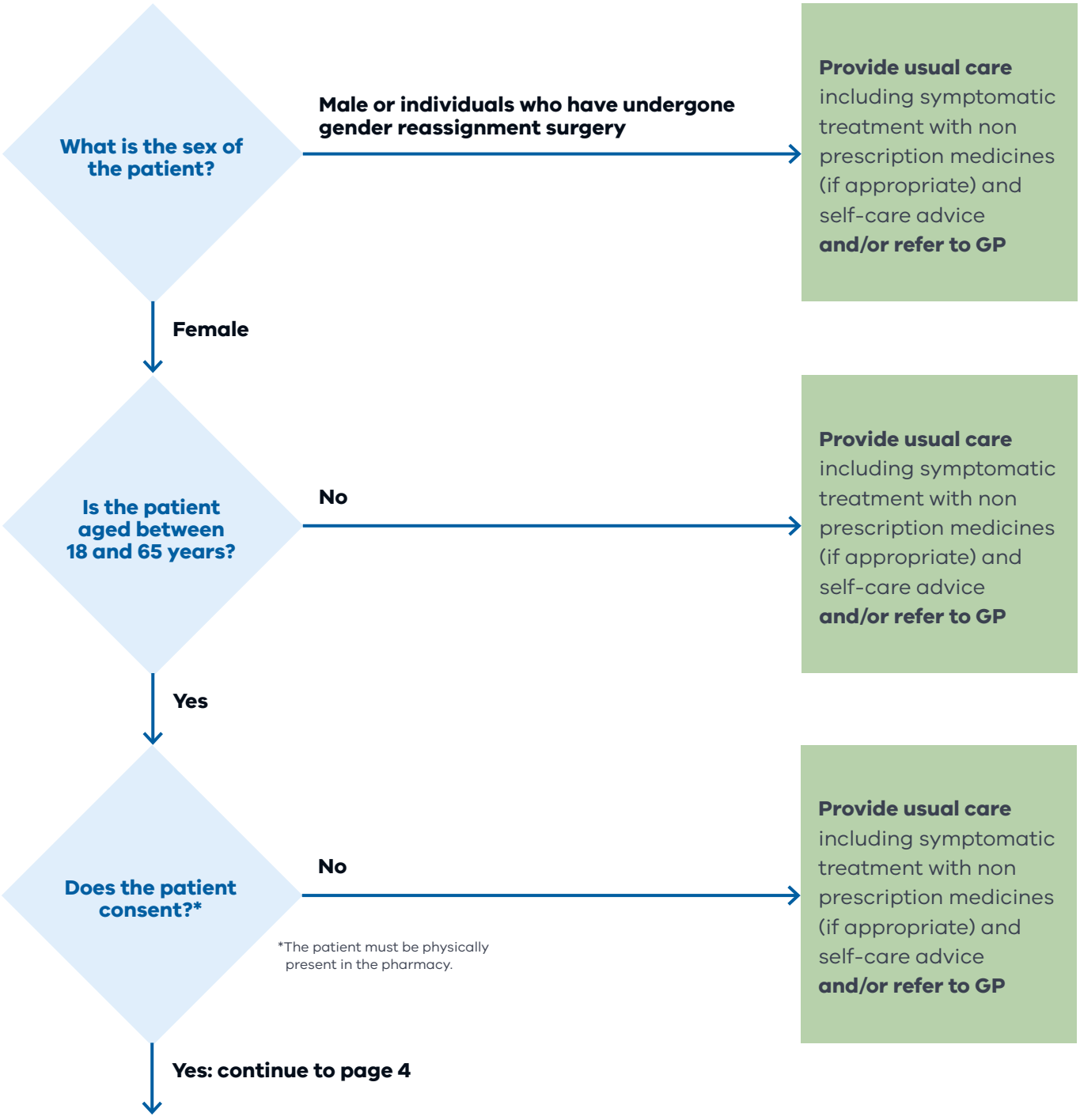
2.1. KEY TO COLOURS USED IN THIS PROTOCOL

Preliminary enquiries

Immediate referral

Pharmacist care and refer

Care provided by pharmacist



Continued from page 3

Does the patient have signs and symptoms indicating **pyelonephritis**? (e.g. fever >38°C, chills, nausea, vomiting, flank pain)

Yes → **Immediate referral to Emergency Department**

No

Is the patient presenting with 2 or more symptoms of acute uncomplicated UTI?*

- ☐ Dysuria
- ☐ Urinary frequency
- ☐ Urinary urgency
- ☐ Suprapubic pain or discomfort

No: presenting with only 1 symptom of uncomplicated UTI or atypical symptoms → **Conservative management** including symptomatic treatment with non-prescription medicines (if appropriate) and self-care advice. **Refer to GP** as patient may benefit from laboratory investigations.

→ go to: **PHARMACIST CARE** section on page 6 below.

Yes

Do symptoms or medical history suggest a cause other than acute UTI? (e.g. vaginal thrush or other)

Yes → Consider appropriateness of S3 Pharmacist Only thrush treatment or **refer to GP** for investigation of other causes (e.g. infections such as bacterial vaginosis or skin conditions)

No

Does the patient have any of the following?

- ☐ Pregnancy or less than 6 weeks post-partum
- ☐ Gross haematuria
- ☐ Cerebral palsy and other neurological diseases that may affect bladder function
- ☐ Recent insertion of IUD (within the last 3 months)
- ☐ Presence or history of anatomical or functional abnormalities of the urinary tract including:
  - Urinary tract obstruction
  - Urinary tract abnormality
  - Urolithiasis
  - Urinary catheterisation (in situ or in the last 48 hours)
  - Nephrostomy tube
  - Ureteral stent
  - Spinal cord injury

Yes → **Immediate referral to GP**

Symptomatic treatment with non prescription medicines (if appropriate) and self-care advice may be provided by pharmacist prior to review by GP

No: continue to page 5

* If vaginal discharge is absent and at least two symptoms of cystitis are present (i.e. acute dysuria, frequency, urgency), the probability of cystitis is greater than 90%

Continued from page 4

Does the patient report any of the following?

- ☐ Having diabetes or using medicines that increase the risk of UTI (e.g. SGLT2 inhibitors)
- ☐ Reoccurrence of UTI symptoms within 2 weeks of completing appropriate antimicrobial treatment for a previous episode
- ☐ Symptoms of UTI persisting 48-72 hours after starting appropriate antibiotic treatment
- ☐ 2 or more symptomatic UTI in previous 6 months OR 3 or more in previous 12 months
- ☐ Long-term inpatient care (including residential aged care facilities)

Yes →

Conservative management including symptomatic treatment with non-prescription medicines (if appropriate) and self-care advice. **Refer to GP** as patient may benefit from laboratory investigations.

→ go to: **PHARMACIST CARE** section on page 6 below.

No ↓

Does the patient report / present with any of the following?

- ☐ Risk factors for sexually transmitted infection (STI) including:
  - Age <29 years
  - Previous STI
  - Sexual contact without a condom/dental dam outside a mutually monogamous relationship
  - A new sexual partner in last 60 days
  - A sex partner recently treated for an STI
  - Sexual contact with a sex worker
- ☐ History of pyelonephritis
- ☐ Taking immunosuppressant medicines
- ☐ Being immunocompromised
- ☐ Asplenia
- ☐ Renal disease or impairment
- ☐ IUD in situ (greater than 3 months)

Yes →

Conservative management including symptomatic treatment with non-prescription medicines (if appropriate) and self-care advice. **Refer to GP** following provisional treatment by pharmacist.

→ go to: **PHARMACIST CARE** section on page 6 below.

Antibiotic treatment by pharmacist may still be considered if clinically appropriate

→ go to: **ANTIBIOTIC THERAPY** section on page 7 below.

No ↓

Provisional diagnosis for uncomplicated UTI and proceed to appropriate treatment

Continue to pharmacist care on page 6

Continued from page 5

PHARMACIST CARE

CONSERVATIVE MANAGEMENT

1 Provide conservative management with non-prescription medicines as first line treatment*

Analgesia: Paracetamol or non-steroidal anti-inflammatory drugs (e.g., ibuprofen, naproxen)
Paracetamol: 1g orally, every 4-6 hours as required. Maximum dose of 4g in 24 hours; OR
Ibuprofen: 200-400mg orally, every 6-8 hours as required. Maximum daily dose of 2.4g in 24 hours

2 Provide non-pharmacological and self-care advice

Provide patient with Consumer Medicines Information and/or a Self-Care Fact Card
Identify and educate patients who are prone to developing UTIs and provide advice on prophylaxis (i.e., increase fluid intake to 2-3L daily)

If patient continues to have symptoms after 48 hours of conservative management, advise patient to return to pharmacy for review and **consider antibiotic therapy**

→ if appropriate, go to: **ANTIBIOTIC THERAPY** section on page 7 below.

* Most women and gender diverse people under 65 years treated symptomatically (without antibiotic therapy) for acute uncomplicated cystitis become symptom free within 1 week. If antibiotic therapy is not given, the risk of acute pyelonephritis or sepsis following uncomplicated cystitis is low but may be reduced by antibiotic therapy.

ANTIBIOTIC THERAPY

Does the patient have allergies, drug-drug interactions or any other contraindications to management options?

Yes →

Where antibiotic therapy is considered the appropriate treatment option but all recommended antibiotics under this protocol are contraindicated, **refer patient to GP**

↓ **No: proceed with antibiotic therapy**

1 Provide empirical antibiotic therapy, where indicated

Trimethoprim (1st line) 300mg orally, daily at night for 3 nights (Supply 3 tablets)

Nitrofurantoin (2nd line) 100mg orally, every 6 hours for 5 days (Supply 20 tablets)

Cefalexin (3rd line) 500mg orally, every 12 hours for 5 days (Supply 10 tablets)

→

Dispense any medications (if supplied) via pharmacy dispensing software and label according to the legislative requirements outlined in the Drugs, Poisons and Controlled Substances Regulations 2017

↓

2 Provide follow-up advice and expectations around duration of symptoms

Symptoms should respond to appropriate antibiotic treatment within 48 hours

If symptoms persist 48 -72 hours after finishing antibiotic treatment or symptoms develop that are not symptoms of an acute UTI, patient should be advised to see a GP.

→

Document the consultation and share a record of the service to the patient, patient's usual treating GP or medical practice where the patient has one

3. Clinical documentation requirements

The pharmacist must make a clinical record of the consultation that contains:

- Sufficient information to identify the patient
- Date of treatment
- Name of the pharmacist who undertook the consultation and their Healthcare Provider Identifier-Individual (HPI-I) number
- Consent given by the patient regarding: pilot participation, costs, pharmacist communication with other healthcare practitioners (e.g. patient's usual treating GP) and access to the patient's My Health Record for the purpose of checking inclusion/exclusion criteria and uploading information relating to the consultation as required
- Any information known to the pharmacist that is relevant to the patient's diagnosis or treatment and any observations and assessments including allergies and adverse drug reactions
- Any clinical opinion reached by the pharmacist
- Actions taken by the pharmacist (including any medications supplied or referrals made to a medical practitioner)
- Particulars of any medications supplied to the patient (such as form, strength and amount)
- Information or advice given to the patient in relation to any treatment proposed by the pharmacist who is treating the patient

The pharmacist must share a copy of the record of the service to the patient and with the patient's usual treating medical practitioner or medical practice, where the patient has one.

The pharmacist must make a record in the pharmacy software and an IT system approved by the Victorian Department of Health, regarding the supply.

4. Supplementary information

The supplementary information provided below has been included to assist Victorian pharmacists participating in the Community Pharmacist Statewide Pilot (the Pilot) and along with the management protocol, is intended to be used together with the Pharmaceutical Society of Australia *Treatment guideline for pharmacists: Cystitis*.

4.1. MEDICINES

Offer analgesia, including paracetamol and/or ibuprofen or naproxen, to patients with symptoms of acute UTI, as first line treatment. Provide non-pharmacological and self-care advice (see patient information in Resources section). Identify and educate patients who are prone to developing UTIs and provide advice on prophylaxis (i.e., increase fluid intake to 2-3L daily).

1. Provide conservative management with non-prescription medicines as first line treatment		
Analgesia: Paracetamol or non-steroidal anti-inflammatory drugs (e.g., ibuprofen, naproxen)		
Paracetamol: 1g orally, every 4-6 hours as required. Maximum dose of 4g in 24 hours, OR		
Ibuprofen: 200-400mg orally, every 6-8 hours as required. Maximum daily dose of 2.4g in 24 hours		
2. Empirical antibiotic therapy where indicated		
Antibiotic	**Dose**	**Contraindications**
Trimethoprim (1st line)	300mg daily (at night) for 3 nights	• Previous serious adverse reaction to trimethoprim-containing medicines • Megaloblastic anaemia due to folate deficiency • Other causes of folate deficiency • Other severe blood disorders • Porphyria • Hyperkalaemia • Treatment with methotrexate • Treatment with phenytoin • Treatment with lamivudine
Nitrofurantoin (2nd line)	100mg every 6 hours for 5 days	• Previous serious adverse reaction to nitrofurantoin • Glucose-6-phosphate dehydrogenase (G6PD), enolase, or glutathione peroxidase deficiency (may lead to haemolytic anaemia) • Anuria or oliguria • Avoid in breastfeeding if infant has G6PD deficiency
Cefalexin (3rd line)	500mg every 12 hours for 5 days	• Previous hypersensitivity to cephalosporins* • Immediate (non-severe or severe) hypersensitivity to penicillins* • delayed severe hypersensitivity to penicillins* • delayed non-severe hypersensitivity reaction to amoxicillin or ampicillin in the last 5 years*,**

* Antimicrobial hypersensitivity Figure 2.55, in Therapeutic Guidelines: Antibiotic, 2019. Therapeutic Guidelines Limited; accessed 10 September 2023. https://www.tg.org.au

** Trubiano, J, and Vogrin, S, et al. "PEN-FAST: A validated penicillin allergy clinical decision rule - Implications for prescribing". Int J Inf Dis, vol.101, (2020). pp. 89-89. doi:10.1016/j.ijid.2020.09.259

5. Resources

5.1. GUIDELINES

Pharmaceutical Society of Australia. Treatment guideline for pharmacists: Cystitis
https://my.psa.org.au/s/article/Treatment-guideline-for-pharmacists-cystitis

Antibiotic [published 2019 May]. In: Therapeutic Guidelines. Melbourne: Therapeutic Guidelines Limited; accessed 10 September 2023. https://www.tg.org.au

Australian STI management guidelines for use in primary care.
https://sti.guidelines.org.au/sexual-history/

5.2. PHARMACIST TRAINING

Pharmaceutical Society of Australia Managing uncomplicated cystitis online training module (2.5 hours)
https://my.psa.org.au/s/training-plan/a110o00000JPST0AAP/managing-uncomplicated-cystitis-urinary-tract-infection

5.3. PROFESSIONAL PRACTICE STANDARDS

Professional Practice Standards 2023, version 6.
https://www.psa.org.au/practice-support-industry/pps/

5.4. PATIENT INFORMATION

Better Health Channel:
https://www.betterhealth.vic.gov.au/health/conditionsandtreatments/urinary-tract-infections-uti

UTI fact sheet from Kidney Health Australia:
https://kidney.org.au/uploads/resources/KHA-Factsheet-urinary-tract-infections-2018.pdf

PSA self care fact sheet:
https://www.psa.org.au/wp-content/uploads/2023/02/4254-FC-Urinary-tract-infection_ekiosk.pdf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