

OFFICIAL



Health Services Programs Outpatient Redesign Project

Clinical Prioritisation Criteria (CPC)

Urology (paediatric)
Outpatient Referral Criteria

Version: 2.0

Approval date: XX/XX/XX

Last edited: 19/03/2024

Contents

| | |
|--|----|
| Summary | 2 |
| Urology (paediatric) conditions | 2 |
| Out of scope | 2 |
| Exclusions for public specialist outpatient services | 2 |
| Emergency information | 2 |
| Feedback..... | 2 |
| Genitourinary Mass/Tumours..... | 4 |
| Hydronephrosis | 6 |
| Macroscopic Haematuria | 8 |
| Penile Conditions | 10 |
| Recurrent Urinary Tract Infections (UTIs)..... | 12 |
| Urinary Incontinence and Bladder Dysfunction..... | 15 |
| Urinary Tract Calculi..... | 18 |



Summary

This document contains the Clinical Prioritisation Criteria (CPC) for most frequently referred Urology (paediatric) conditions.

Urology (paediatric) conditions

Please note this is not an exhaustive list of all conditions for outpatient services and does not exclude consideration for referral unless specifically stipulated in the urology exclusions section.

- Genitourinary mass/tumour
- Hydronephrosis
- Macroscopic haematuria
- Penile conditions (excluding common foreskin related conditions – see ‘out of scope’)
- Recurrent urinary tract infections (UTIs)
- Urinary incontinence and bladder dysfunction (excluding incontinence associated with developmental delays or diagnosis – see ‘out of scope’)
- Urinary tract calculi

Out of scope

Not all medical conditions are covered by the CPC, as certain conditions may be considered out of scope or managed by other specialist services:

- Angiolipoma – refer to nephrology
- Common foreskin related conditions – refer to paediatric surgery
 - balanitis
 - foreskin adhesions
 - paraphimosis
 - phimosis
 - recurrent balanitis/posthitis
 - smegma cysts of foreskin/penis
- Concerns of ‘childhood non-accidental injury’ – refer to [Child Protection Services](#) for further information
- Incontinence associated with developmental delays or behavioural diagnosis (e.g. ADHD or ASD) – assessment by occupational therapy and paediatric medicine prior to urology
- Microscopic haematuria – refer to nephrology
- Primary nocturnal enuresis - refer to paediatric medicine (children aged > 7 years old only. Under 7 years do not require medical review)
- Sexually transmitted infections – refer to [Adelaide Sexual Health Centre](#)
- Disorders of sexual differentiation and urogenital developmental disorders – not included in CPC, please still refer to Urology as needed

Exclusions for public specialist outpatient services

Not all Urology (paediatric) conditions are appropriate for referral into the South Australian public health system. The following are not routinely provided in a public specialist outpatient service:

- Circumcision for cultural/religious reasons
- Redundant foreskin

Emergency information

See the individual condition pages for more specific emergency information.

Feedback

We welcome your feedback on the Clinical Prioritisation Criteria and website, please email us any suggestions for improvement at Health.CPC@sa.gov.au.

Review

The Urology (paediatric) CPC is due for review in MMMM 2025.

OFFICIAL

Evidence statement

See Urology (paediatric) evidence statement (*evidence statement to be linked here*).

This document is for consultation only.

Genitourinary Mass/Tumours

Referral to emergency

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- acute urinary retention
- severe/uncontrolled haematuria
- urinary tract sepsis/systemic infection
- severe/uncontrolled abdominal pain
- hypertension with abdominal mass

Contacts for clinical advice

For clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Women's and Children's Hospital Network

- Women's and Children's Hospital (08) 8161 7000

If urgent advice required, please contact the Women's and Children's Hospital Network.

Inclusions, exclusions and triage categories

Exclusions

- angioliipoma - refer to nephrology
- asymptomatic simple renal cyst < 1cm

Triage categories

Category 1 (appointment clinically indicated within 30 days)

- complex cystic lesion greater than 4cm
- mucosal/collecting system lesions
- any solid renal mass
- suspected malignancy (consider phoning on-call urology registrar to discuss)
- any mass of testis, para-testicular mass or bladder mass (consider phoning on-call urology registrar to discuss)

Category 2 (appointment clinically indicated within 90 days)

- complex cystic renal mass less than 4cm without suspicion of malignant disease
- large or symptomatic simple renal cyst
- suspected pelvic ureteric junction (PUJ) obstruction in child > 12 months of age

Category 3 (appointment clinically indicated within 365 days)

- Nil

Referral information

For information on referral forms and how to import them, please view [general referral information](#).

Essential referral information

Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- identifies as Aboriginal and/or Torres Strait Islander
- identify within your referral if you feel your patient is from a [vulnerable population](#), under guardianship/[out-of-home care arrangements](#) and/or requires a third party to receive correspondence on their behalf
- interpreter requirements
- under the custody or guardianship of the Chief Executive

OFFICIAL

- age
- past medical/surgical/psychosocial/family history
- family history
- current medications
- allergies and sensitivities
- presenting symptoms, including:
 - onset
 - duration
 - concerning features
- height/weight
- body mass index (BMI)
- [growth chart trends](#)
- [blood pressure \(trends\)](#)
- examination (findings)
 - abdominal examination
 - scrotal examination (boys)
- urinalysis (dipstick) result

Additional information to assist triage categorisation

- pathology:
 - complete blood examination (CBE)
 - electrolytes, urea & creatinine (EUC)
 - liver function test (LFT)
 - estimated glomerular filtration rate (eGFR)
 - mid-stream urine (MSU) M/C/S
- relevant diagnostic/imaging reports (including location of company and accession number)

Resources

Clinical resources

- [Cancer Australia – Children’s Cancer Clinical Guidelines](#)
- [Royal Children’s Hospital Melbourne – Paediatric Hypertension Guidelines](#)

Consumer resources

- [Cancer Australia – Children’s Cancer](#)
- [Canteen – Urinary Tract Cancers](#)

Key words

Wilms, tumour, bladder, renal, mass, abdominal

Hydronephrosis

Referral to emergency

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- suspected posterior urethral valves
- hydronephrosis with concerning features:
 - urinary tract infection with systemic features
 - pain
 - urinary retention

Contacts for clinical advice

For clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Southern Adelaide Local Health Network

- Flinders Medical Centre (08) 8204 5511

Women's and Children's Hospital Network

- Women's and Children's Hospital (08) 8161 7000

If urgent advice required, please contact the Women's and Children's Hospital Network.

Inclusions, exclusions and triage categories

Triage categories

Category 1 (appointment clinically indicated within 30 days)

- bilateral hydronephrosis
- hydronephrosis and pain or urinary tract infection
- proven calculi in ureter and any of the following:
 - decreased renal function and/or increasing pain
 - patients with single kidney and/or renal transplant
- severe hydronephrosis
- significant neonatal renal pelvic dilatation:
 - greater than 15mm (single)
 - greater than 10mm (bilateral)

Category 2 (appointment clinically indicated within 90 days)

- hydronephrosis without concerning features as listed above

Category 3 (appointment clinically indicated within 365 days)

- Nil

Referral information

For information on referral forms and how to import them, please view [general referral information](#).

Essential referral information

Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- identifies as Aboriginal and/or Torres Strait Islander
- identify within your referral if you feel your patient is from a [vulnerable population](#), under guardianship/[out-of-home care arrangements](#) and/or requires a third party to receive correspondence on their behalf
- interpreter requirements
- under the custody or guardianship of the Chief Executive
- age

OFFICIAL

- past medical/surgical/ante-natal history
- family history of:
 - stones, metabolic disease and renal failure, congenital renal anomalies
- current medications
- allergies and sensitivities
- presenting symptoms including:
 - onset
 - duration
 - concerning features
- physical examination (findings)
- height/weight
- body mass index (BMI)
- [growth chart trends](#)
- [blood pressure \(trends\)](#)
- urinalysis (dipstick) result
- kidneys, ureters, bladder (KUB) ultrasound (US)
- relevant pre-natal/ante-natal diagnostic/imaging reports (including location of company and accession number)

Additional information to assist triage categorisation

- pathology:
 - complete blood examination (CBE)
 - electrolytes, urea & creatinine (EUC)
 - mid-stream urine (MSU) M/C/S

Resources

Clinical resources

- [Safer Care Victoria Clinical Guidelines – Hydronephrosis in Neonates](#)

Consumer resources

- [National Kidney Foundation - Your Child Has Hydronephrosis](#)

Key words

Hydronephrosis, PUJ, posterior, urethral, valves, obstruction



Macroscopic Haematuria

Referral to emergency

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- acute urinary retention
- severe/uncontrolled haematuria i.e. persistent haematuria or haematuria with clots
- urinary tract sepsis/systemic infection
- suspected renal trauma
- passing clots

Contacts for clinical advice

For clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Southern Adelaide Local Health Network

- Flinders Medical Centre (08) 8204 5511

Women's and Children's Hospital Network

- Women's and Children's Hospital (08) 8161 7000

If urgent advice required, please contact the Women's and Children's Hospital Network.

Inclusions, exclusions and triage categories

Exclusions

- clinical suspicion of post-streptococcal glomerulonephritis – refer to nephrology (or emergency department if indicated)
- concerns of 'childhood non-accidental injury' – refer to [Child Protection Services](#) for further information. If requiring clinical care please, refer to both Urology and CPS.
- microscopic haematuria - refer to nephrology
- sexually transmitted infections – refer to [Adelaide Sexual Health Centre](#)

Triage categories

Category 1 (appointment clinically indicated within 30 days)

- macroscopic haematuria

Category 2 (appointment clinically indicated within 90 days)

- nil

Category 3 (appointment clinically indicated within 365 days)

- nil

Referral information

For information on referral forms and how to import them, please view [general referral information](#).

Essential referral information

Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- identifies as Aboriginal and/or Torres Strait Islander
- identify within your referral if you feel your patient is from a [vulnerable population](#), under guardianship/[out-of-home care arrangements](#) and/or requires a third party to receive correspondence on their behalf
- interpreter requirements
- under the custody or guardianship of the Chief Executive
- age

OFFICIAL

- past medical/surgical/psychosocial history
- family history of haematuria, renal disease/stones
- current medications, allergies e.g. NSAIDS, rifampicin, metronidazole, nitrofurantoin, or cyclophosphamide
- allergies and sensitivities
- presenting symptoms history, including:
 - onset/duration
 - previous episodes of haematuria
 - symptoms of urinary infection e.g., dysuria, frequency, pain, fever
 - systemic symptoms e.g., fatigue, oedema, rash, arthralgia, or coryza
 - recent surgery or trauma including non-accidental injury
 - history of underlying bleeding disorder or immunodeficiency
 - food intake (beetroot and berries can colour urine to pink or red)
 - exercise
- height/weight
- body mass index (BMI)
- [growth chart trends](#)
- [blood pressure \(trends\)](#)
 - physical examination (findings) e.g., review eyes, skin, genitalia, joint tenderness or swelling, and signs of oedema or organomegaly
- pathology
 - mid-stream urine (MSU) M/C/S
 - **sexually active people** – please complete a sexually transmitted infection (STI) screen, including:
 - chlamydia and gonorrhoea which requires:
 - endocervical/penile swab for culture and
 - endocervical/penile polymerase chain reaction (PCR) swab or urine sample
- Medical imaging
 - kidneys, ureters and bladder (KUB) ultrasound (US)
 - relevant diagnostic/imaging reports (including location of company and accession number)

Additional information to assist triage categorisation

- pathology:
 - complete blood examination (CBE)
 - electrolytes, urea & creatinine (EUC)
 - liver function test (LFT)
 - coagulation studies (coags)
 - urine culture, protein, creatinine ratio

Resources

Clinical resources

- [Royal Children's Hospital Melbourne – Haematuria Clinical Guidelines](#)
- [Royal Children's Hospital Melbourne – Paediatric Hypertension Guidelines](#)

Consumer resources

- [National Kidney Foundation – Haematuria in Children](#)

Key words

Blood, urine, haematuria, trauma

Penile Conditions

Referral to emergency

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- acute urinary retention
- acute paraphimosis (acute swelling of partially retracted foreskin)
- severe acute balanitis
- priapism
- foreign bodies
- bladder exstrophy

Contacts for clinical advice

For clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Southern Adelaide Local Health Network

- Flinders Medical Centre (08) 8204 5511

Women's and Children's Hospital Network

- Women's and Children's Hospital (08) 8161 7000

If urgent advice required, please contact the Women's and Children's Hospital Network.

Inclusions, exclusions and triage categories

Exclusions

- circumcision requested for cultural/religious reasons
- common foreskin related conditions – refer to Paediatric Surgery
 - balanitis
 - foreskin adhesions
 - paraphimosis
 - phimosis
 - recurrent balanitis/posthitis
- common foreskin related conditions – do not require OPD assessment
 - redundant foreskin
 - smegma cysts of foreskin/penis
- concerns of 'childhood non-accidental injury' – refer to [Child Protection Services](#) for further information

Triage categories

Category 1 (appointment clinically indicated within 30 days)

- ambiguous genitalia

Category 2 (appointment clinically indicated within 90 days)

- hypospadias
- epispadias

Category 3 (appointment clinically indicated within 365 days)

- isolated chordee
- any other concerns regarding penile anomalies

Referral information

For information on referral forms and how to import them, please view [general referral information](#).

Essential referral information

Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- identifies as Aboriginal and/or Torres Strait Islander
- identify within your referral if you feel your patient is from a [vulnerable population](#), under guardianship/[out-of-home care arrangements](#) and/or requires a third party to receive correspondence on their behalf
- interpreter requirements
- under the custody or guardianship of the Chief Executive
- age
- past medical/surgical/psychosocial/family history
- current medications
- allergies and sensitivities
- presenting symptoms history, including:
 - onset/severity
 - duration
 - trauma (if relevant)
 - concerning features e.g. urinary stream/retention, preputial ballooning, pain
 - previous management trialed and outcomes e.g., topical steroids for hypospadias
- quality of life concerns including
 - missed work/school/extracurricular activities
- height/weight
- body mass index (BMI)
- [growth chart/pubertal staging trends](#)
- [blood pressure \(trends\)](#)
- abdominal examination (findings)
- penile examination (findings) e.g., discolouration, swelling, resting position
- relevant diagnostic/imaging reports (including location of company and accession number)
- pathology:
 - **sexually active people** – please complete a sexually transmitted infection (STI) screen, including:
 - chlamydia and gonorrhoea which requires:
 - endocervical/penile swab for culture and
 - endocervical/penile polymerase chain reaction (PCR) swab or urine sample

Resources

Clinical resources

- [Royal Children's Hospital Melbourne - The Penis and Foreskin Clinical Guidelines](#)
- [Royal Children's Hospital Melbourne - Hypospadias](#)

Consumer resources

- [Royal Children's Hospital Melbourne - Hypospadias](#)
- [Royal Children's Hospital Melbourne – Penis and Foreskin Care CIS](#)

Key words

Penis, curved, foreskin, urethral, abnormality, urethra, Ambiguous, genitalia, posterior, chordee, hypospadias, urethral, congenital, malformation, epispadias,

Recurrent Urinary Tract Infections (UTIs)

Referral to emergency

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- urosepsis
- acute infant urinary tract infection (UTI) unresponsive to first-line treatment
- concerns of severe UTI, symptoms may include
 - ongoing persistent fever of 38° or higher
 - persistent vomiting
 - malodorous/cloudy urine
 - serious dehydration
- [hypertension](#) greater than 97th percentile for age
- presumed UTI in infant less than 3 months of age and clinically unwell

Contacts for clinical Advice

For clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Southern Adelaide Local Health Network

- Flinders Medical Centre (08) 8204 5511

Women's and Children's Hospital Network

- Women's and Children's Hospital (08) 8161 7000

If urgent advice required, please contact the Women's and Children's Hospital Network.

Inclusions, exclusions and triage Categories

Exclusions

- concerns of 'childhood non-accidental injury' – refer to [Child Protection Services](#) for further information
- sexually transmitted infections – refer to [Adelaide Sexual Health Centre](#)
- no culture proven UTIs

Triage categories

Category 1 (appointment clinically indicated within 30 days)

- infants aged 6 months of age with first presentation febrile urinary tract infection (UTI)
- babies greater than 6 months of age and/or children with a history of:
 - acute pyelonephritis
- urosepsis in child with known significant renal tract abnormalities
- hydronephrosis with UTI
- concerns of bladder outlet obstruction

Category 2 (appointment clinically indicated within 90 days)

- child with a minimum of 3 UTIs within the last 12 months
- urinary tract infections with atypical bacteria
- known renal tract abnormality transfer of care
- infants and children with history of acute pyelonephritis/upper urinary tract infection post hospital admission without significant structural anomalies

Category 3 (appointment clinically indicated within 365 days)

- Nil

Referral Information

For information on referral forms and how to import them, please view [general referral information](#).

Essential referral information

Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- identifies as Aboriginal and/or Torres Strait Islander
- identify within your referral if you feel your patient is from a [vulnerable population](#), under guardianship/[out-of-home care arrangements](#) and/or requires a third party to receive correspondence on their behalf
- interpreter requirements
- under the custody or guardianship of the Chief Executive
- age
- past medical/surgical/developmental/immunisation history
- family history
- current medications
- allergies and sensitivities
- presenting symptoms history, including:
 - onset
 - duration
 - frequency of urinary tract infections and age of first onset
 - concerning features
 - additional history of
 - constipation
 - fluid intake
 - personal hygiene
- height/weight
- body mass index (BMI)
- [growth chart trends](#)
- [blood pressure \(trends\)](#)
- abdominal examination (findings)
- neurological examination (findings)
- assessment of central nervous system (CNS)/birth marks/dysmorphism
- bladder chart – (intake/output fluid chart)
- urinalysis (dipstick) result
- relevant diagnostic/imaging reports (including location of company and accession number)
- pathology:
 - mid-stream urine (MSU) M/C/S
 - **sexually active people** – please complete a sexually transmitted infection (STI) screen, including:
 - chlamydia and gonorrhoea which requires:
 - endocervical/penile swab for culture and
 - endocervical/penile polymerase chain reaction (PCR) swab or urine sample

Additional information to assist triage categorisation

- assessment of urinary stream
- pathology:
 - complete blood examination (CBE)
 - electrolytes, urea & creatinine (EUC)
 - liver function test (LFT)
 - estimated glomerular filtration rate (eGFR)
 - c-reactive protein (CRP)
- kidneys, ureters, bladder (KUB) ultrasound (US) required for:
 - child less than 12 months of age with first presentation urinary tract infection (UTI)

OFFICIAL

- children greater than 1 year of age with recurrent UTI's or atypical UTIs
- quality of life concerns including
 - missed work/school/extracurricular activities

Resources

Clinical resources

- [NICE Guidelines - Urinary Tract Infection \(Recurrent\): Antimicrobial Prescribing](#)
- [Royal Children's Hospital Melbourne – Paediatric Hypertension Guidelines](#)
- [Royal Children's Hospital Melbourne – Urinary Tract Infection Clinical Guidelines](#)
- [South Australian Paediatric Clinical Practice Guidelines – Urinary Tract Infection \(UTI\) in Children](#)

Consumer resources

- [Royal Children's Hospital Melbourne - Urinary Tract Infection \(UTI\) CIS](#)

Key words

Cystitis, bladder, infection, pyelonephritis

Urinary Incontinence and Bladder Dysfunction

Referral to Emergency

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- urosepsis
- acute urinary retention
- acute renal failure
- acute trauma to urethra
- suspected cauda equina syndrome
- suspected spinal cord compression
- systemic signs of infection
- urinary outlet obstruction

Contacts for clinical advice

For clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Southern Adelaide Local Health Network

- Flinders Medical Centre (08) 8204 5511

Women's and Children's Hospital Network

- Women's and Children's Hospital (08) 8161 7000

If urgent advice required, please contact the Women's and Children's Hospital Network.

Inclusions, exclusions and triage categories

Exclusions

- concerns of 'childhood non-accidental injury' – refer to [Child Protection Services](#) for further information
- incontinence associated with developmental delays or behavioural diagnosis (eg ADHD or ASD) - assessment by occupational therapy and paediatric medicine prior to urology
- monosymptomatic nocturnal enuresis - consider referral to enuresis clinic
- sexually transmitted infections – refer to [Adelaide Sexual Health Centre](#)
- stress incontinence – consider allied health practitioner involvement for first-line treatment
- uncomplicated lower urinary tract symptoms (LUTs) without first-line treatment

Triage categories

Category 1 (appointment clinically indicated within 30 days)

- moderate to high post-volume residuals (PVRs) (for age/bladder size) with:
 - altered renal function and/or
 - hydronephrosis and/or
 - severe irritative symptoms (bladder pain or severe cystitis)

Category 2 (appointment clinically indicated within 90 days)

- incontinence associated with a history of recurrent UTIs
- repeated episodes of urinary retention
- elevated PVRs for age and bladder size
- persistent or progressive symptoms despite first-line treatment
- previous incontinence/pelvic surgery and/or pelvic radiation/malignancy
- urethral stricture
- meatal stenosis
- neurogenic bladder and/or neurological symptoms (if neurogenic bladder and/or neurological symptoms unexplained, consider imaging and investigations)
- suspected/confirmed urogenital fistula
- haematuria and/or sterile pyuria

OFFICIAL

Category 3 (appointment clinically indicated within 365 days)

- child with greater than 6 months daytime urinary incontinence
- secondary enuresis or new onset incontinence in a previously dry child

Referral information

For information on referral forms and how to import them, please view [general referral information](#).

Essential referral information

Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- identifies as Aboriginal and/or Torres Strait Islander
- identify within your referral if you feel your patient is from a [vulnerable population](#), under guardianship/[out-of-home care arrangements](#) and/or requires a third party to receive correspondence on their behalf
- interpreter requirements
- under the custody or guardianship of the Chief Executive
- age
- past medical/surgical/psychosocial/family history
- current and trialled medications (specifically alpha blockers, 5 alpha reductase inhibitors, anticholinergic agent, beta-3 adrenergic antagonists, phosphodiesterase type 5 inhibitor)
- previous management trialled and outcomes e.g., intermittent self-catheterisation, aperients
- allergies and sensitivities
- presenting symptoms history, including:
 - onset/duration
 - daytime accidents
 - frequency
 - urgency
 - straining
 - pain on urination
 - if periods of dryness ask about physical, emotional and social triggers
 - previous treatments
 - history of constipation
 - history of UTI's
- associated co-morbidities e.g. neurological condition or spinal injury; pelvic surgery, malignancy, chemotherapy/radiotherapy, constipation, enuresis,
- quality of life concerns including
 - missed work/school/extracurricular activities
- height/weight
- body mass index (BMI)
- [growth chart trends](#)
- [blood pressure \(trends\)](#)
- abdominal examination (findings)
- neurological examination (findings)
- bladder/stool chart – (intake/output fluid chart)
- indwelling urinary catheter status (if relevant)
- urinalysis (dipstick) result
- kidneys, ureters and bladder (KUB) ultrasound (US) with pre and post volumes
- pathology:
 - mid-stream urine (MSU) M/C/S (ideally first pass urine collection)
 - **sexually active people** – please complete a sexually transmitted infection (STI) screen, including:
 - chlamydia and gonorrhoea which requires:
 - endocervical/penile swab for culture and
 - endocervical/penile polymerase chain reaction (PCR) swab or urine sample

Additional information to assist triage categorisation

- bladder diary
- kidneys, ureters, bladder (KUB) ultrasound (US) including pre and post volumes
- relevant diagnostic/imaging reports (including location of company and accession number)
- abdominal X-ray

Resources

Clinical resources

- [Continenence Foundation of Australia - Bladder Diary with Instructions](#)
- [Continenence Foundation of Australia - Clinical Guidelines](#)
- [Royal Children's Hospital Melbourne - Urinary Incontinence - Daytime Wetting Clinical Guidelines](#)

Consumer resources

- [Continenence Foundation of Australia - Day Wetting](#)
- [Continenence Foundation of Australia - Children](#)
- [Continenence Foundation of Australia - Incontinence in Teenagers And Young Adults](#)
- [Continenence Foundation of Australia - Neurogenic Bladder Dysfunction Explained](#)

Key words

Enuresis, nocturnal, day, daytime, wetting, incontinence, bladder, dysfunction, neurogenic, spinal cord injury, post, tract, flow, residual, urethral, incontinence, retention, urinary, lower, stricture, urodynamic, LUTS, symptoms, volume

Urinary Tract Calculi

Referral to emergency

If any of the following are present or suspected, please refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- acute urinary retention
- acute renal failure
- acute/severe urinary tract calculi/colic with or without:
 - urinary outlet obstruction
 - systemic signs of infection
- severe and uncontrolled flank/back pain

Contacts for clinical advice

For clinical advice, please telephone the relevant metropolitan Local Health Network switchboard and ask to speak to the relevant specialty service.

Southern Adelaide Local Health Network

- Flinders Medical Centre (08) 8204 5511

Women's and Children's Hospital Network

- Women's and Children's Hospital (08) 8161 7000

If urgent advice required, please contact the Women's and Children's Hospital Network.

Inclusions, exclusions and triage categories

Triage categories

Category 1 (appointment clinically indicated within 30 days)

- outlet obstructive calculi/stone
- proven calculi in ureter and any of the following:
 - decreased renal function and/or increasing pain
 - patients with single kidney and/or renal transplant
- staghorn kidney stones
- urinary tract calculi with UTIs

Category 2 (appointment clinically indicated within 90 days)

- asymptomatic renal calculi/stone greater than 5mm
- bladder stone
- confirmed calculi/stone in urinary tract and any of the following:
 - recurrent presentation
 - renal impairment
 - severe pain
 - unresponsive to first-line treatment

Category 3 (appointment clinically indicated within 365 days)

- nil

Referral information

For information on referral forms and how to import them, please view [general referral information](#).

Essential referral information

Completion required before first appointment to ensure patients are ready for care. Please indicate in the referral if the patient is unable to access mandatory tests or investigations as they incur a cost or are unavailable locally.

- identifies as Aboriginal and/or Torres Strait Islander
- identify within your referral if you feel your patient is from a [vulnerable population](#), under guardianship/[out-of-home care arrangements](#) and/or requires a third party to receive

OFFICIAL

- correspondence on their behalf
- interpreter requirements
- under the custody or guardianship of the Chief Executive
- age
- past medical/surgical/psychosocial history e.g. known urinary tract anomalies
- family history of:
 - stones, metabolic disease and renal failure
 - familial inherited disorders e.g. cystic fibrosis, Bartter's, Lowe's and Williams syndrome
- current medications
- allergies and sensitivities
- presenting symptoms history, including:
 - age of first urinary tract infection (UTI)
 - onset/duration
 - frequency
 - diet/fluid intake history e.g. ketogenic diet, poor fluid intake
 - previous management trialed and outcomes
- quality of life concerns including
 - missed work/school/extracurricular activities
- height/weight
- body mass index (BMI)
- [growth chart trends](#)
- [blood pressure \(trends\)](#)
- abdominal examination (findings)
- bone structure
- pre-natal and post-natal investigation summary
- urinalysis (dipstick) result
- bladder chart – (intake/output fluid chart)
- pathology:
 - complete blood examination (CBE)
 - electrolytes, urea & creatinine (EUC)
 - liver function test (LFT)
 - estimated glomerular filtration rate (eGFR)
 - mid-stream urine (MSU) M/C/S
- kidneys, ureters and bladder (KUB) ultrasound (US) and x-ray
- relevant diagnostic/imaging reports (including location of company and accession number)

Resources

Clinical resources

- [NICE Guidelines - Renal and Ureteric Stones: Assessment and Management](#)
- [Therapeutic Guidelines – Pain Management for Renal Colic](#)

Consumer resources

- [National Kidney Foundation - Kidney Stones in Children and Teens](#)
- [Kidney Health Australia – Fact Sheet: Kidney Stones](#)

Key words

Renal, calculi, stone, kidney