These referral recommendations are provided for core Urology Services in the public health system. The public sector excludes social or cultural circumcision, vasectomy reversal, male fertility and access to primary erectile dysfunction. Erectile dysfunction secondary to surgical intervention is included.

In cases of urological emergency requiring urgent treatment or admission, the on call Urological Registrar may be contacted via the Hospital switchboard.

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Evaluation</th>
<th>Management Options</th>
<th>Referral Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the context of these referral recommendations, Urology Specialist Services have been grouped under the following headings:</td>
<td>Evaluation is indicated from a primary care perspective. Standard history and examination is required for all situations. Key points in relation to individual diagnoses are highlighted and investigations indicated.</td>
<td>Treatment options at a primary level may be minimal for surgical diagnoses; however, options are indicated where appropriate.</td>
<td>Urology will prioritise urgency of assessment based on:</td>
</tr>
<tr>
<td>• High suspicion or confirmed cancer</td>
<td></td>
<td></td>
<td>1. High suspicion or confirmed cancer</td>
</tr>
<tr>
<td>• Impaired function with a risk of permanent impairment if left untreated</td>
<td></td>
<td></td>
<td>2. Impaired function with a risk of permanent impairment if left untreated</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Telephone/fax/e-mail communication with the urological referral nurse / registrar will enhance access to the service.</td>
</tr>
</tbody>
</table>

The following symptoms require investigation and urgent referral as these patients are at high risk of urological cancer:

• Visible haematuria in adults.
• Microscopic haematuria in adults over 50 years.
• Swellings in the body of the testis.
• Solid renal masses found on imaging.
• Elevated age-specific prostate specific antigen (PSA) in men with a 10 year life expectancy.
• A high PSA (>20ng/ml) in men with a clinically malignant prostate or bone pain.
• Any suspected penile cancer.
### Surveillance for High Risk Subjects

<table>
<thead>
<tr>
<th>Recognition of Symptoms and Signs</th>
<th>Diagnostic Investigation</th>
<th>Referral Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prostate Cancer</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Targeted screening is justified in familial and hereditary prostate cancer families.</td>
<td>• DRE Digital Rectal Examination</td>
<td>Patients with acute urinary retention, clot haematuria, severe pain indicative of bony metastatic disease or neurological symptoms compatible with spinal cord compression - require immediate referral.</td>
</tr>
<tr>
<td>• Hereditary prostate cancer is said to exist in a family where:</td>
<td>• PSA Prostate Specific Antigen preferably 2 tests, at least 4 weeks apart),</td>
<td>All other patients should be seen by the specialist within 1-3 months of identifying any abnormal result. Refer Urgent-Semi-urgent</td>
</tr>
<tr>
<td>• 3 generations are affected or 3 first degree relatives affected or any 3 relatives are affected before age 55 years.</td>
<td>• MSU</td>
<td></td>
</tr>
<tr>
<td>• A single first degree relative under age of 55 is sufficient to trigger investigation of prostate cancer.</td>
<td>• Rectal examination findings</td>
<td></td>
</tr>
<tr>
<td>• Recommendation of annual DRE/PSA from age of 40 onwards in counselled individuals</td>
<td>• a GP ordered Transrectal ultrasonography (TRUS) is NOT required</td>
<td></td>
</tr>
<tr>
<td>Patients may present with lower urinary tract symptoms (LUTS) or symptoms of metastatic disease. Urgent referral should be made based on the criteria below:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• With a hard, irregular prostate typical of a prostate carcinoma. Prostate-specific antigen (PSA) should be measured and the result should accompany the referral.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• With a normal prostate, but rising/raised age-specific PSA, with or without lower urinary tract symptoms.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• With symptoms and high PSA levels.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note: In patients compromised by other comorbidities, a discussion with the patient or carers and/or a specialist may be more appropriate.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Penile Cancer</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals with a high risk of developing penile cancer should be monitored accordingly. Risk factors associated with penile cancer include:</td>
<td>Physical examination and history. It is important to record:</td>
<td>Patients may present with:</td>
</tr>
<tr>
<td>• Smoking</td>
<td>• Diameter of the penile lesion or suspicious areas</td>
<td>• Colour changes, bumps or thickening of the skin of the glans or prepuce particularly, but can involve the skin of the penile shaft</td>
</tr>
<tr>
<td>• Phimosis and chronic irritation processes related to poor hygiene</td>
<td>• Location(s) on the penis</td>
<td>• Persistent discharge or bleeding</td>
</tr>
<tr>
<td>• Human Papilloma Virus (HPV) types 16 and 18</td>
<td>• Number of lesions</td>
<td>• Abdominal CT</td>
</tr>
<tr>
<td>• Lack of or late circumcision</td>
<td>• Morphology of the lesion, whether papillary, nodular, ulcerous or flat</td>
<td>With symptoms or signs of penile cancer. These include progressive ulceration or a mass in the glans or prepuce particularly, but can involve</td>
</tr>
<tr>
<td></td>
<td>• Relationship with other structures (e.g. submucosa, corpora spongiosa and/or cavernosa, urethra)</td>
<td></td>
</tr>
</tbody>
</table>
Clinical assessment needs to discriminate between Peyronie's plaque (benign and affects up to 15% of men) and penile cancer (rapidly malignant) arising from the skin (cancer) and the skin of the penile shaft.

Note: Lumps within the corpora cavernosa can indicate Peyronie’s disease.

Refer semi-urgent / routine referral depending on symptoms – Semi-urgent-Routine

<table>
<thead>
<tr>
<th>Surveillance for High Risk Subjects</th>
<th>Recognition of Symptoms and Signs</th>
<th>Diagnostic Investigation</th>
<th>Referral Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bladder Cancer</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haematuria is a symptom of cancer requiring investigation and referral, particularly in individuals with risk factors. Risk factors include:</td>
<td>Of any age with painless macroscopic haematuria</td>
<td>Physical examination</td>
<td>Refer Urgent</td>
</tr>
<tr>
<td>• Frank haematuria</td>
<td>Aged 40 years and older who present with recurrent or persistent urinary tract infection associated with haematuria</td>
<td>Diagnostic investigations and staging routinely include urinary tract ultrasound and intravenous urography or CT urography.</td>
<td></td>
</tr>
<tr>
<td>• Over 40 years of age</td>
<td>With an abdominal mass identified clinically or on imaging that is thought to arise from the urinary tract</td>
<td>• upper tract imaging (either ultrasound or CT-IVP if high risk) prior or in the pipeline for referral</td>
<td></td>
</tr>
<tr>
<td>• Smoking</td>
<td>Aged 50 years and older who are found to have unexplained microscopic haematuria (semi-urgent referral)</td>
<td>Renography, MRI and PET are used selectively.</td>
<td></td>
</tr>
<tr>
<td>• Family history</td>
<td>Haematuria clinics exist in some centres streamlining review</td>
<td>Cystoscopy+/− retrograde pyleoureterography</td>
<td></td>
</tr>
<tr>
<td>• Those with a poor fluid intake</td>
<td></td>
<td>Transurethral resection</td>
<td></td>
</tr>
<tr>
<td>• Bilharzia / Schistosomiasis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>infection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Previous treatment for cancer; in particular radiotherapy to the pelvis and some forms of chemotherapy.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Testicular Cancer**

Only a small proportion of men with scrotal swellings have cancer; a GP may see only one case of testicular cancer every 20 years and is not likely, therefore, to be able to distinguish between tumours and non-malignant causes of symptoms.

GPs should refer men with testicular masses or other unexplained testicular symptoms for specialist assessment.

Symptoms:
- testicular masses
- other unexplained testicular symptoms
- sensation of scrotal heaviness

Testicular cancer can be reliably confirmed or excluded by a combination of clinical examination and ultrasound imaging with staff who are skilled in interpreting ultrasound images of the scrotum.

GPs who have rapid access to these services should do so to determine benign/malignant nature and make appropriate referral.

If ultrasound and clinical examination suggest the presence of cancer, blood should be taken before surgery to assess levels of tumour markers including:
- alpha-fetoprotein (AFP),
- lactate dehydrogenase (LDH)
- beta-human chorionic gonadotrophin (βhCG).

Suspected cases of testicular cancer are urgent and should be discussed with the registrar or referrals nurse refer Urgent.

**Scrotal Abnormality**

- Right, left, bilateral
- Cord or Vas
- Varicocele / Hydrocele
- Epididymal cyst
- Physical examination
- Ultrasound mandatory

Dependent of symptoms and specific pathology

Semi-urgent- Routine

**Undescended testis**

An undescended testis is one that cannot be manipulated into the bottom of the scrotum.

All testes should be situated within the scrotum by the age of 3 months.

Conservative management is reasonable in patients over 40 years

In a clinically obvious associated hernia, they should be managed as hernia Referral Recommendation.
### Kidney Cancer

**Risk factors include:**
- Smoking
- Obesity
- Hypertension
- Long term dialysis
- Von Hippel–Lindau (VHL) Syndrome
- Gender (males more likely)

Patients with kidney cancer may present with:
- Haematuria
- Pain in the side that doesn’t go away
- A lump or mass in the side or the abdomen
- Weight loss
- Fever

**Diagnostic Investigation:**
- Physical examination will identify a palpable mass in side or abdomen
- Hypertension
- Check urine for blood
- ESR and U&E, Creatinine
- CT or ultrasound

**Referral Guidelines:** Refer Urgent

### Female incontinence

- Obstetric history
- Previous gynaecological/urological surgery
- PV findings
- Neurological signs

**Duration of symptoms**
- Predominantly stress incontinence
- Predominantly urge incontinence
- Urge/stress incontinence
- Does the patient require pads, number per day?

**Conservative management by a trained physiotherapist or continence specialist.**
- MSU
- Bladder drills.
- Pelvic floor exercises
- Treat UTI’s
- Anticholinergics if low residuals on bladder scan

**Referral Guidelines:** Routine if conservative measures fail.

### Lower Urinary Tract Symptoms (Male)

**Bladder Outflow Obstruction**

**KEY POINTS:**
- Symptoms need assessment
- Nocturia, urgency, incontinence, haematuria or pain
- Previous lower urinary tract surgery.

**Physical Examination:**
- Palpable/percussible bladder
- Abnormal DRE – asymmetry, hardness nodules, induration.
- IPSS symptom score
- Free flow rate

**Diagnostic Investigation:**
- Continence advisors can provide triage, MSU, flow rate and bladder residuals
- Trial of alpha adrenergic blockers (prazosin / tamsulosin) after flow rate and bladder scan residual.
- Elevated PSA or Abnormal DRE require urgent referral

**Referral Guidelines:** Urgent, Semi-Urgent, Routine based on referral details
- Semi-urgent- Routine after trial of alpha adrenergic blockers.
- Bothersome symptoms refer Routine
### Male Genitalia

**Acute Scrotal Pathology**

The following conditions are included:
- Epidydimo-orchitis
- Torsion of testis
- Torsion of appendix of testis
- Strangulated hernia
- Incarcerated hernia
- Idiopathic scrotal oedema
- Uncertain mumps orchitis


**Patient require referral to ED for assessment and pain management**

**Scrotal Pain with or without swelling:**
- Refer immediately (phone) – Urgent

### Urinary Tract

**Urinary Tract Infection.**

Many urological abnormalities will present as a urinary tract infection. These include:
- Vesicoureteric reflex.
- Pelvi-ureteric junction obstruction.
- Vesicoureteric junction obstruction.
- Primary Mega-ureter.
- Neurogenic bladder.
- Duplex system +/- ureterocele.
- Posterior urethral valves.

**KEY POINTS:**

- Evaluation of urinary tract infections:
- The diagnosis of UTI requires great care and skill.
- Clear evidence of UTI is essential.
- Urine results must be provided with the referral.

**INVESTIGATIONS:**

- MSU
- Plain KUB x-ray Renal tract ultrasound
- Post void residual

**Start antibiotics pending culture report. Five day course.**

- Consider long term surveillance and prophylactic antibiotics until investigations are completed.
- Treat constipation and toileting hygiene.
- Any UTI in a male requires specialist investigation
- Females with recurrent (3 per year) or persistent UTI requires specialist investigation

**Refer for assessment patients with abnormal imaging results or if requiring investigations, noting local Recommendations. Routine**

**Refer recurrent urinary tract infections. Routine.**

### Neuropathic Bladder

**KEY POINTS:**

- Spinal abnormality, ie mass or spina bifida occulta.
- Exclude constipation.
- Regular urine check-ups

**Treat constipation.**

**Long term antibiotics may be indicated**

**Refer to Urology Service if diagnosis suspected.**
<table>
<thead>
<tr>
<th>Surveillance for High Risk Subjects</th>
<th>Recognition of Symptoms and Signs</th>
<th>Diagnostic Investigation</th>
<th>Referral Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Calculi</strong></td>
<td><strong>KEY POINTS:</strong></td>
<td></td>
<td>This is usually via an A&amp;E department</td>
</tr>
<tr>
<td></td>
<td>• Pain score: Severe, Moderate or Minimal.</td>
<td>• NSAID drugs as a class.– useful for proven renal colic if stone passes</td>
<td>Many cases are offered early intervention, stents or lasertripsy</td>
</tr>
<tr>
<td></td>
<td>• Analgesia requirement</td>
<td>• Tamsulosin 400 micrograms / day</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Asymptomatic.</td>
<td>is a useful adjunctive analgesic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Acute renal colic – right/left – duration of symptoms.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Known urinary tract calculus.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>o size of stone.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>o location.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>o how diagnosed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Metabolic Disease i.e Gout.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>INVESTIGATIONS:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• MSU (microscopy).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>See Imaging Recommendations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>