Kidney and Urology Summary

The role of the GP in kidney and urological health

As a GP your role is to:

- Identify and manage chronic kidney disease (CKD), and understand the interventions that can delayitsprogressionandreducetheassociatedincreasedcardiovascularmorbidityand mortality
- Identify and manage Acute Kidney Injury (AKI), including taking early action, such as stopping medications, to reduce the risk of AKI
- Manage of common urinary tract problems such as urinary tract infections (UTI), renal stone disease and benign prostatic conditions
- Be alert to possible indicators of urinary tract malignancy
- Know when to refer and when not to refer, avoiding futile investigation and escalation and encouraging supportive care.

Key Areas for Exam preparation

Common and important conditions

- Acute Kidney Injury (AKI)
- Cancer: bladder, kidney, penile, prostate, testicular, ureteric
- Chronic Kidney Disease (CKD) including causes, classification, management, monitoring and indications for referral.
- Congenital abnormalities of the urinary tract
- Haematuria (visible or non-visible)
- Inherited kidney diseases such as polycystic kidney disease, Alport syndrome
- Intrinsic renal disease (e.g. glomerulonephritis)
- Overactive bladder syndrome
- Penile problems such as malignancy, paraphimosis, Peyronie's disease, phimosis, priapism, balanitis, skin disorders
- Prostatic problems such as acute and chronic prostatitis, benign prostatic hyperplasia, prostatic carcinoma
- Proteinuria (including microalbuminuria)
- Renovascular disease (renal artery stenosis)
- Systemic conditions causing kidney disease e.g. connective tissue diseases, diabetes mellitus, glomerulonephritis, hypertension, malignancy such as multiple myeloma, nephrotic syndrome
- Testicular problems including epididymitis, hydrocele, orchitis, sperm granuloma, torsion, tumours (such as seminoma and teratoma), undescended and mal descended testes, varicocele
- Urinary incontinence in men
- Urinary incontinence in women: stress and/or urge incontinence. (Prolapse is covered in Topic Guide *Gynaecology and Breast*)
- Urinary tract infections in children and in adults including lower urinary tract infection, pyelonephritis and persistent/recurrent infection
- Urinary tract obstruction including acute and chronic retention; causes including prostatic and other structural abnormalities (strictures, congenital renal tract abnormality such as posterior urethral valves, duplex systems)
- Urolithiasis (stone disease): renal colic, management of stones including lithotripsy and ureteric stents.

  (Erectile dysfunction and sexually transmitted infection are covered in Topic Guide *Sexual Health*)

Suggested resources:

General reading

- https://www.rcseng.ac.uk/news-and-events/media-centre/media-background-briefings-and-statistics/urology/

Acute Kidney (AKI)

- https://www.evidence.nhs.uk/search?q=acute-kidney-injury
- https://www.nice.org.uk/guidance/conditions-and-diseases/kidney-conditions/acute-kidney-injury

Cancer

- https://www.evidence.nhs.uk/search?q=improving+outcomes+in+urological+cancers

SEE ALSO CANCER TOPIC

Chronic Kidney Disease (CKD)

- https://www.evidence.nhs.uk/search?q=chronic-kidney-disease
- https://www.nice.org.uk/guidance/cg182
- https://cks.nice.org.uk/chronic-kidney-disease

Congenital abnormalities of the urinary tract

- https://www.evidence.nhs.uk/search?ps=20&q=Urogenital+abnormalities
- https://www.intechopen.com/books/congenital-anomalies-from-the-embryo-to-the-neonate/congenital-anomalies-of-urinary-tract-and-anomalies-of-fetal-genitalia
- https://patient.info/doctor/congenital-urogenital-malformations

Haematuria (visible or non-visible)

- https://www.evidence.nhs.uk/search?ps=40&q=Haematuria
- https://www.evidence.nhs.uk/search?ps=20&q=microscopic+hematuria
- https://www.baus.org.uk/professionals/baus_business/publications/17/haematuria_guidelines/
- https://primarycareurologysociety.org/haematuria.php

Inherited kidney diseases such as polycystic kidney disease, Alport syndrome

- https://www.evidence.nhs.uk/search?q=polycystic+kidney+disease
- https://bestpractice.bmj.com/topics/en-gb/860

Intrinsic renal disease (e.g. glomerulonephritis)

- https://www.evidence.nhs.uk/search?ps=50&q=Glomerulonephritis
- https://bestpractice.bmj.com/topics/en-us/207

Overactive bladder syndrome

- https://www.evidence.nhs.uk/search?q=OVERACTIVE+BLADDER

Penile problems such as malignancy, paraphimosis, Peyronie's disease, phimosis, priapism,

- https://www.evidence.nhs.uk/search?ps=50&q=Foreskin
- https://www.evidence.nhs.uk/search?ps=30&q=Phimosis
- https://cks.nice.org.uk/balanitis
- https://cks.nice.org.uk/urethritis-male
- https://bestpractice.bmj.com/topics/en-gb/765
- https://bestpractice.bmj.com/topics/en-gb/505
- https://www.baus.org.uk/_userfiles/pages/files/Patients/Leaflets/Peyronies.pdf

Proteinuria (including microalbuminuria)

- https://renal.org/information-resources/the-uk-eckd-guide/proteinuria/
- https://cks.nice.org.uk/chronic-kidney-disease

Renovascular disease (renal artery stenosis)

- https://www.evidence.nhs.uk/search?q=renal+artery+stenosis
- https://bestpractice.bmj.com/topics/en-gb/435

Systemic conditions causing kidney disease e.g. connective tissue diseases, diabetes mellitus, glomerulonephritis, hypertension, malignancy such as multiple myeloma, nephrotic syndrome

- https://www.gpnotebook.co.uk/simplepage.cfm?ID=x20020429231048021840
- https://www.nice.org.uk/guidance/ng35
- https://cks.nice.org.uk/chronic-kidney-disease

Testicular problems including epididymitis, hydrocele, orchitis, sperm granuloma, torsion, tumours (such as seminoma and teratoma), undescended and mal descended testes, varicocele

- https://www.evidence.nhs.uk/search?q=testicular+pain
- https://cks.nice.org.uk/scrotal-pain-and-swelling
- https://uroweb.org/wp-content/uploads/EAU-Guidelines-Testicular-Cancer-2016-1.pdf

Urinary incontinence in men

- https://www.evidence.nhs.uk/search?q=nice+guidelines+for+male+incontinence
- https://www.nice.org.uk/guidance/cg97/chapter/research-recommendations
- https://www.nice.org.uk/guidance/ng123

Urinary incontinence in women: stress and/or urge incontinence. (Prolapse is covered in Topic Guide *Gynaecology and Breast*)

- https://pathways.nice.org.uk/pathways/urinary-incontinence-and-pelvic-organ-prolapse-in-women
- https://cks.nice.org.uk/incontinence-urinary-in-women

Urinary tract infections in children and in adults including lower urinary tract infection, pyelonephritis and persistent/recurrent infection

- https://www.guidelines.co.uk/paediatrics/nice-guideline-uti-in-children-and-young-people/453701.article
- https://www.nice.org.uk/guidance/cg54/chapter/Recommendations

Urinary tract obstruction including acute and chronic retention; causes including prostatic and other structural abnormalities (strictures, congenital renal tract abnormality such as posterior urethral valves, duplex systems)

- https://www.evidence.nhs.uk/search?ps=40&q=Urethral+obstruction
- https://www.evidence.nhs.uk/search?q=bladder+outlet+obstruction
- https://www.evidence.nhs.uk/search?ps=40&q=male+LUTS
- https://www.bmj.com/content/366/bmj.l4590
- https://bnf.nice.org.uk/treatment-summary/urinary-retention.html

Urolithiasis (stone disease): renal colic, management of stones including lithotripsy **and ureteric stents.**

- https://www.nice.org.uk/guidance/ng118
- https://cks.nice.org.uk/renal-or-ureteric-colic-acute