MBChB Year 2 Clinical Contact in GP – Urinary symptoms and thirst 12th March 2026

Overview of the urinary symptoms and thirst session in GP clinical contact

The Intended Learning Outcomes for this session are:

Undertake a clinical consultation & gather information relevant to the patient presentation
Describe & perform a clinical examination relevant to the patient presentation including vital signs
Practise formulating a differential diagnosis
Practise presenting the patient and be able to discuss the differential diagnosis and management options

The aims for this session are:

- Discuss the assessment of urinary symptoms and thirst in Primary Care
- ractise consulting and examination (preferably abdominal)
- Link university learning to Primary Care and share your clinical experience

Common to all sessions:

- Refer to the Year 2 GP handbook, which covers the information common to all sessions
- Please see Session plans for Clinical contact in GP year 2 (2025-26) also attached to this email to help you structure time with your group

Allow time for:

- Identifying one or two learning points/things to look-up for next time
- If possible, allow some time to reflect on the sessions so far: How are the students finding the sessions? Anything they would like to do differently?

(Expert) patients

Suitable patients for the block are:

- A patient with chronic renal failure or who has a past history of acute renal failure or a patient with renal transplant or on dialysis
- A patient from the triage list presenting with urinary symptoms
- A patient with recurrent or chronic urinary symptoms e.g. prostate cancer or prostatic hypertrophy or has an indwelling catheter
- A patient with type 1 or type 2 diabetes
- Any patient suitable for abdominal examination practice

Context for the session

Students will have covered the following in the two-week urinary symptoms and thirst block:

In **Case-Based Learning** students consider a 22-year-old male medical student with type 1 diabetes mellitus presenting with DKA; and a 22-year-old woman presenting with diabetes insipidus.

In **lectures, workshops and practicals** student learn about:

- Polyuria and thirst; complications of diabetes mellitus; blood in the urine, micro and macroscopic haematuria; oedema; drugs that increase urine output; uraemia; dysuria, frequency and flank pain; urinary tract measurements and urinary incontinence; lower urinary tract symptoms (LUTS)
- Nephrotoxicity and the principles of prescribing
- Applied Anatomy and Imaging Practical (Urinary)

In their **Effective Consulting labs** students will:

- Meet and consult with a simulated patient with urinary symptoms
- Consider how to explain diabetes to patients

Brainstorm for urinary symptoms and thirst in GP Clinical Contact – see mind map on next page

- Discuss common urinary symptoms that present in Primary Care
- Discuss how to assess and differentiate between causes of urinary symptoms
- Explore specific history and associated features of diabetes (type 1 and type 2)
- Consider how to approach an abdominal examination, including the kidneys and bladder

Student information

You should be aware of:

- urinary tract infection including pyelonephritis
- kidney stones
- acute and chronic renal failure
- type 1 & type 2 diabetes
- prostatic hypertrophy
- carcinoma of the urinary tract including prostate cancer

Summary of the urological history

Introduction

Common urinary symptoms that present in clinical practice:

- Dysuria – pain or discomfort on urination
- Problems with volume of urine: anuria (absence of urine), oliguria (<500mL of urine produce per day) or the opposite - polyuria
- Storage problems: urgency, frequency of urination, nocturia (passing urine at night) and urge incontinence
- Voiding problems: hesitancy (waiting for urination to start) straining to pass urine, poor stream, terminal dribbling, and a sensation of incomplete emptying. Retention is obstruction of urine flow. Bladder outflow obstruction can be caused by an enlarged prostate (in men) urethral obstruction, or genital prolapse (in women).
- Problems with the constituents of urine: haematuria (micro- or macroscopic) or proteinuria (more than 150mg of protein in the urine per day)—if heavy the patient may notice frothy urine.

Presenting complaint

Dysuria (pain when passing urine): Commonly a urine infection but can also be a symptom of a sexually transmitted infection e.g. chlamydia; or bladder cancer

Haematuria: Bleeding can occur anywhere along the urinary tract from the glomerulus of the kidney to the lining of the bladder. Ask if it is painful or painless, and if the bleeding is constant or intermittent.

- Visible haematuria (patients may describe brown (like tea without milk), pink urine or frank red blood). 60% of renal tumours and 80% of bladder cancers present with bleeding, but they are rare in patients under 40.
- Haematuria in bladder cancer is usually painless and intermittent.
- Bleeding can be associated with renal stones and infection but usually the patient will have other symptoms associated with these.

Symptoms of urinary calculi - pain, haematuria. Urinary calculi can occur anywhere along the urinary tract.

- Stones in the renal pelvis or in the bladder can be asymptomatic and present with non-visible haematuria.
- Kidney stones can cause severe loin pain.
- Those that occur at narrow sites such as pelvic-ureteric junction cause pain from obstruction, the pain comes in waves (colicky) and the patient is often unable to lie still with the bouts of pain.

- If the obstruction is in the lower ureter it can radiate to the testes/genitals.

Passing too much or too little urine: Clarify if patients are passing large quantities of urine each time they go or getting the urge to urine often but only passing small amounts (frequency)

- **Frequency** can be urinary tract infection, overactive bladder or constipation (or other causes of intrabdominal pressure)
- **Polyuria** can be caused by high fluid intake, or too much urine being produced either through osmotic diuresis (diabetes mellitus) or inadequate secretion of, or resistance to, antidiuretic hormone (ADH) in diabetes insipidus. Medication e.g. diuretics can increase urination.
- **Oliguria** or anuria can be caused by inadequate fluid intake, obstruction or renal failure.

Urinary incontinence

- Stress incontinence is where the pelvic floor muscles are too weak to fully control the passage of urine with a rise in intra-abdominal pressure e.g. coughing and sneezing.
- Urge incontinence is where there is a sudden urge to urinate with difficulty controlling the passage of urine, this can be due to "detrusor instability" where the bladder is overactive and contracts before the bladder is full, the pressure overrides voluntary control.
- Neurological conditions can affect the storage of urine, the control of the sphincters or loss of sensation, and cause problems with the co-ordination and control of urination.

Lower urinary symptoms (LUTS) are a collective term usually referring to difficulty passing urine, with symptoms such as hesitancy at the start of the stream and weak flow. There may also be nocturia. LUTS is often due to enlargement of the prostate gland in male patients due to benign prostatic hypertrophy or prostate cancer.

Urinary retention may be acute (complete inability to void) or chronic (incomplete bladder emptying) and is typically managed with urinary catheterisation. Can be due to a UTI, prostatic enlargement, constipation or medication such as opiods or anti-muscarinics which are used to treat overactive bladder. Retention can also have a neurological cause, such as cauda equina syndrome – a neurosurgical emergency

Systemic manifestations of underlying urological disease:

- Fever and rigors – most seen in acute pyelonephritis
- Nausea and vomiting – frequently associated with pyelonephritis
- Unintentional weight loss – suggestive of malignancy or chronic uraemia
- Uraemic features – including nausea, vomiting, fatigue, anorexia, weight loss, muscle cramps, pruritus, and cognitive disturbance
- Confusion – in the elderly or in post operative patients urinary tract infections or urinary retention can present with delirium or confusion

SYSTEMS REVIEW – A brief overview (not exhaustive). What you ask depends on the presenting problem and situation and what you have already covered

Systemic: Fever, weight loss, pain.
Cardiovascular & Respiratory: Chest pain, breathlessness (including PND & orthopnoea) palpitations, ankle swelling, cough, wheeze, exercise tolerance normally and any recent change.

Gastrointestinal: Appetite, weight, abdominal pain, swallowing, nausea, changes in bowel habit, jaundice, stool appearance/blood.

Genitourinary: Urinary symptoms (hesitancy, terminal dribbling, dysuria, haematuria, nocturia, incontinence, discharge), menstrual history, pregnancy.

Neurological: Memory, vision, hearing, headaches, fits, faints, funny turns, mood changes, unsteadiness, weakness.

Musculoskeletal: Injuries, joint pain/swelling, muscle pain.

Dermatological: Rash, skin lesions, ulcers.

Past medical and surgical history relevant to urological conditions

- Recurrent UTIs
- Diabetes
- Prostate disease
- Renal disease e.g. chronic kidney disease (CKD) previous renal transplant, polycystic kidneys or unilateral renal agenesis
- Bleeding disorders if presenting with haematuria

Medication history – please see specific medication history

Diuretics (e.g. furosemide): a common cause of nocturia and can cause acute kidney injury

Medication may be nephrotoxic e.g. ACE inhibitors, NSAIDs

Medication that patients are commonly on to treat renal conditions e.g. prophylactic antibiotics for recurrent UTI or antimuscarinic medication for overactive bladder

Family history

"Have any of your parents, siblings or children been diagnosed with kidney, bladder or prostate problems?"

Social, lifestyle and wellbeing – please see specific social and lifestyle history & the "Lifie"

PATIENT PERSPECTIVE (IDEAS, CONCERNS, EXPECTATIONS, IMPACT & EMOTIONS)

Ideas. What do they think is going on? Possible causes? What have they tried already? Sources of info e.g. What does your partner/ family think?

Concerns. What are they worried is going on or will happen?

Expectations. What are they hoping for?

Impact. How is the problem affecting them?

Emotions. What are the predominant emotions around the problem? Psychological impact.