



"You're the doctor" – a urinary system review

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In all these cases, assume you have all the diagnostic etc facilities you could wish for in your ideal hospital

Case 1

A mother brings her young son, who's recently started school, to see you – she's worried because overnight his face has swollen up and his urine is dark brown.

Case 1

What other information would you want to ask about in the history or systematic enquiry?

What would you particularly look for in your physical examination?

What would you check for in the urine?

Would you do any lab investigations?

Case 1

What do you think his clinical syndrome is?

What might a specific diagnosis be?

Would you do a renal biopsy?

What would his renal biopsy show?

Case 1

How would you manage this boy?
- and would you consider any specific treatment?

What would you tell the mother when she says
"what's going to happen to him"?

How might the patient's clinical findings change as
the case moves towards its most likely clinical
outcome?



Case 2

A 35 year old previously healthy male presents
feeling unwell and complaining of headaches.
When you examine him, you find his BP is high
and he has haematuria and proteinuria. His
blood urea is also raised.

You think he may have acute nephritis and treat
him accordingly

Is your assumption reasonable and what treatment
might you use?

Case 2

He doesn't get better.

His blood pressure remains elevated and his blood
urea continues to rise.

His general condition continues to deteriorate, he
develops severe oedema and increasing
haematuria

What would this make you think of?

Case 2

What might the kidneys show on renal biopsy?

What's the explanation for the histological
appearances?

What could you do for the patient?

(Do you know of any systemic diseases associated
with this sort of GN?)



Case 3

A middle-age man returns from working in South Africa with a letter from a surgeon he saw there.

It says that the patient had a stage 1 transitional cell carcinoma of his bladder which was treated by endoscopic curettage.

The patient says he doesn't understand what's been happening and what will happen to him.

What would you tell him about the disease and his prognosis and how would you follow him up?



Case 4

A 54 year old woman has a long history of hypertension which you've treated for years, though she is not always been compliant with her treatment.

She comes to see you complaining of swollen ankles.

Is it reasonable to think she might have left heart failure?

Case 4

Why do patients with left heart failure get swollen ankles?

Recently she has been taking her blood pressure pills regularly. You find that her BP is no higher than "usual" for her and that she has no chest signs. (What chest signs were you looking for?)

But you still decide to try (more) diuretics and even add digoxin, "just in case".

A week later her ankles are more swollen and the oedema is spreading up her legs. She also complains of weight gain and that her clothes are not fitting.

Case 4

Why (and how) would you examine her abdomen?

You think she might have renal disease.

How would you confirm your clinical impressions?
- i.e. confirm the clinical presentation you're considering?

Which "test" would you do first?

Case 4

What kind of GN might be the cause of this?

Could any non-GN renal disease be responsible?

How would you differentiate between the specific lesions you think might be responsible?

What would your chosen "disease" show on biopsy?

Case 4

What's the likely outcome for the disease you picked?

Is there anything you could do for this patient that might help her?

Case

What if she doesn't have the nephrotic syndrome after all?



Case 5

The parents of a 9 year old girl think she's gaining weight and bring her to see you.

The nurse has already checked the child's urine. It shows a lot of protein, but no sugar or blood.

Case 5

Is there anything else you might ask about in the history and what would you concentrate on in the physical examination?

Would you ask for any lab investigations?

Case 5

You do a renal biopsy and the pathologist says that light microscopy doesn't really show anything. In particular, there's no evidence of immune complexes or complement in the glomeruli.

Does that help you make a diagnosis?

Case 5

Without treatment, what's the likely course of the disease for this patient?

If you do decide to treat her, what would you use?

What's the long term prognosis?

What if treatment with steroids is ineffective?



Case 6

A middle-aged man likes keeping fit – he is alarmed after exercising one day when he noticed bright red blood in his urine. He shrugs it off, but comes to see you when it starts to recur. He's soon to be married again and, understandably, he and his girlfriend want to know what's going on.

Case 6

What might you ask him about? – and look for in your examination?

His urine contains red blood cells – what diseases do you need to consider?

What would be your approach to diagnosis in the diseases you choose?

Case 6

If you chose more than one disease, which do you think (given the information you can tell the couple or they could access on the web) they would probably prefer him to have?

How would manage the patient if he has the disease you chose?



Case 7

A 55 year old man presents with hypertension.

Where do you “start”?

Let’s say you discover he has chronic renal failure (CRF). What diseases might be responsible?

How else might a patient with CRF present?



Case 8

A 65 year old man comes to see you. After he explains his problems, you think he might have prostatism. Why?

Why would you examine him?

As he’s dressing, he mentions that his clothes have been getting loose recently.

Can you think of two possible reasons for that – and how you would investigate him for them?



Case 9

A 40 year old woman presents with pain in her right flank.

What questions would you ask her, what would you look for in your clinical examination?

Assuming there might be more than one cause of her problems, how would you investigate the case?



Case 10

A bus has crashed down a hill. Several of the passengers are dead, some badly injured and others almost unhurt. The bus driver is trapped at the scene and only released hours later. He's unconscious, has multiple fractures and considerable soft tissue damage.

You are the receiving doctor. How are you going to "monitor and support" the patient while his injuries are being dealt by the surgeons?

