NEPHROLOGY

1. **A25yearoldman developed bilateral loin pain and frank haematuria. His symptoms had started 24 hoursafter developing a sore throat. His blood pressure was 138/88 mmHg. Urinalysis was positive for blood (4+)and protein (2+). What is the most likely diagnosis?**
   a. IgA nephropathy
   b. microscopic polyangiitis
   c. nephrolithiasis
   d. poststreptococcal glomerulonephritis
   e. septicaemia

2. **A70 year old female is admitted 12 hours after taking an overdose of aspirin. Investigations revealed:**

   Serum sodium 138 mmol/L (137144),

   Serum potassium 5.9 mmol/L (3.54.9),

   Serum bicarbonate 14 mmol/L (2028), Serum urea 18.1 mmol/L (2.57.5),

   Serum creatinine 238 umol/L (60110),

   Serum salicylate 1120 mg/L (8 mmol/L).

   What is the most appropriate treatment of this patient?
   a. Haemodialysis
   b. Haemofiltration
   c. Intravenous sodium bicarbonate.
   d. Peritoneal dialysis.
   e. Urine alkalinization.

3. **Whichof the following is associated with Hyperuricaemia?**
   a. is usually due to an excess purine consumption
   b. occurs in association with acute lymphoblastic leukaemia
   c. in primary gout is inherited in an autosomal dominant manner
   d. can be reduced with low dose aspirin therapy
   e. can be treated with uricosuric drugs even in renal failure

4. **A67 year old man presents with sudden onset atrial fibrillation (ventricular rate of 150/minute). His serumcreatinine concentration was 250 umol/L (70110). What is the main factor that determines the choice of loading dose of digoxin in this patient?**
   a. Absorption
   b. Apparent volume of distribution
   c. Lipid solubility
   d. Plasma halflife
   e. Renal clearance

5. **Thefollowing are complications of nephrotic syndrome with the exception of**
   a. acute renal failure
   b. accelerated hypertension
   c. hypocalcaemia
   d. pneumococcal infection
   e. venous thrombosis

6. **Autosomalrecessive conditions include:**
   a. Vitamin D resistant rickets
   b. Huntingdon's chorea
   c. Wilson's disease
   d. Manic depression
   e. Turner's syndrome

7. **A44yearoldwoman with type 1 diabetes mellitus has not attended the diabetic clinic for 5 years. HerHbA1c is 10.1%. Examination shows no abnormalities. Her hemoglobin level is 9 g/dL, hematocrit is 28%, andmean corpuscular volume is 94 mcm3. A blood smear shows normochromic, normocytic anaemia. Which of thefollowing is the most likely cause?**
   a. acute blood loss
   b. chronic lymphocytic leukaemia
   c. erythropoietin deficiency
   d. microangiopathic haemolysis
   e. sideroblastic anaemia

8. **A60yearoldwoman is admitted with sudden onset of chest pain and is diagnosed with an acutemyocardial infarction. Her acute illness is complicated by low blood pressure and poor tissue perfusion forseveral days. Her serum lactate becomes elevated. Her serum urea and creatinine are noted to be increasing. Day 1 Day 2 Day 3 urea (mmol/L) 8 22 30 creatinine (µmol/L) 116 140 200. Granular and hyaline casts are present on microscopic urinalysis. The renal lesion that is most likely to be present in this situation is?**
   a. Acute tubular necrosis
   b. Minimal change disease
   c. Nodular glomeruloscerosis
   d. Pyelonephritis
   e. Renal vein thrombosis

9. **A25yearoldman developed bilateral loin pain and frank hematuria. His symptoms had started 24 hoursafter developing a sore throat. His blood pressure was 138/88 mmHg. Urinalysis was positive for blood (4+)and protein (2+). What is the most likely diagnosis?**
   a. IgA nephropathy
   b. microscopic polyangiitis
   c. nephrolithiasis
   d. poststreptococcal glomerulonephritis
   e. septicaemia

10. **Whichof the following concerning renal blood flow is true?**
    a. is 40% of the cardiac output at rest
    b. can be measured using the Fick principle
    c. is higher in the medulla than the cortex
    d. is increased when renal nerves are stimulated
    e. is decreased in response to hypoxia

11. **Whatis the most likely outcome of minimal change nephropathy at 16 year of age?**
    a. a tendency to relapse
    b. full renal recovery
    c. permanent renal impairment
    d. persistent hypertension
    e. persistent proteinuria

12. **Whichof the following concerning the pH of urine is correct?**
    a. is a useful indicator of the acid/base balance of the blood
    b. rises on a vegetarian diet
    c. is determined by the concentration of ammonium
    d. is lower than 5.5 in renal tubular acidosis
    e. would be above 7.0 after prolonged and severe vomiting

13. A2 week old male child is brought to casualty by his concerned parents with diarrhoea and vomiting. He isthe first child of a young couple. Examination reveals few features besides obvious dehydration. He is noted tohave a penile length of 3.5cms. Which of the following is the most appropriate inital treatment for thispatient?

a. Cow's milk allergy is the most likely diagnosis
b. glutenenteropathyshould be excluded
c. Requires urgent treatment with oral steroids
d. Requires urgent treatment with IV normal saline
e. Rota virus gastroenteritis is the most likely diagnosis

14. Whichone of the following statements regarding renal function is correct?

a. The daily solute excretion will lie between 75 and 300 mosmol
b. The permeability of the distal nephron to water increases in the presence of vasopressin
c. The rate of ammonium excretion in urine is inversely related to the rate of urinary hydrogen ion excretion
d. A ten minute period of hyperventilation will normally be expected to lead to an increased rate of bicarbonate excretion inurine
e. Sodium reabsorption in the tubules is mainly controlled by aldosterone

15. Whichof the following are true of chronic renal failure in childhood?

a. is unlikely to be due to chronic pyelonephritis unless there is a clear history of an acute attack
b. if accompanied by renal osteodystrophy is likely to be associated with severe hypertension
c. is an unusual sequel of acute post streptococcal glomerulonephritis
d. is the most common sequel to the nephrotic syndrome
e. is likely to be benefited by administration of corticosteroids

16. Acuterenal failure may be distinguished from chronic renal failure by which of the following?

a. an increased urinary Na excretion
b. left ventricular hypertrophy on the ECG
c. hypophosphataemia
d. renal size on ultrasound scan
e. hyperkalaemia

17. Whichone of the following statements is correct?

a. adult polycystic renal disease is inherited as an autosomal recessive trait
b. reflux nephropathy is inherited as an autosomal recessive trait
c. nephrogenic diabetes insipidus is inherited as an autosomal dominant trait
d. Alport's syndrome affects females more severely than males
e. medullary sponge kidney is typically not inherited but is a congenital condition.

18. Metastaticcalcification in chronic renal failure:

a. unaffected by time on CAPD
b. rapidly reversed in all sites after parathyroidectomy
c. characteristically caused by calcium oxalate deposition
d. increased prevalence with time on haemodialysis
e. decreased by Vitamin D

19. A33 year old male is receiving regular haemodialysis is noted to have a plasma potassium of 6.9 mmol/L(3.54.9)before a dialysis session. Although normally his potassium is less than 5.5 mmol/L. Which foodcombination from the dietary history would be most likely to cause the high potassium concentration?

a. Cereal, toast, biscuits.
b. Filter coffee, tea, boiled potatoes.
c. Milk, butter, plain yoghurt
d. Milk, ham, chicken.
e. Tomato, potato crisps, banana.

20. Whichof the following features would be expected in acute tubular necrosis?

a. Proteinuria on urinalysis
b. Red cell casts on urinalysis
c. Urine plasma osmolality ratio is more than 1:1
d. Urinary sodium concentration greater than 30 mmol/l
e. Creatinine clearance would be expected to be normal 1 year after the initial insult.

21. Inwhich of the following circumstances would the treatment of anaemia with erythropeitin still beexpected to be effective?

a. Aluminium toxicity
b. Folate deficiency
c. Hyperkalaemia
d. Infection
e. Iron deficiency

22. A66yearoldman has developed chronic renal failure with a serum urea of 60 mmol/L and creatinine of650 micromol/L. Auscultation of the chest reveals a friction rub over the cardiac apex. He is most likley tohave a pericarditis that is termed?

a. Constrictive
b. Fibrinous
c. Hemorrhagic
d. Purulent
e. Serous

23. Whichof the following is characteristic of Bartter's Syndrome?

a. Secondary hyperaldosteronism
b. Hyperkalaemia
c. Metabolic acidosis
d. Reduced renal concentrating ability
e. Diarrhoea

24. Whichof the following is NOT a recognised cause of acute tubular necrosis?

a. Rhabdomyolysis
b. Paracetamol poisoning
c. Hypovolaemia
d. Hypertension
e. Corticosteroid therapy

25. A49yearoldwoman has been an inpatient for the past 10 days for treatment of a bronchopneumonia. Shehas developed the onset of chills, fever, and skin rash over the past two days. A peripheral blood film revealseosinophilia. On urinalysis she has ++ proteinuria. There is no past history of renal disease. Her hemoglobinA1C is normal. These findings would most strongly suggest which of the following diagnoses?

a. Acute serum sickness
b. Acute tubular necrosis
c. Druginducedinterstitial nephritis

d. IgA nephropathy
e. Post streptococcal glomerulo nephritis

26. Oliguriamore likely to be due to prerenal failure than intrinsic renal failure if:
a. urine free of red blood cells or casts
b. urine:plasma urea ratio <3
c. urine osmolality <350 mOsm/l
d. in the presence of hypertension, raised JVP and good peripheral circulation
e. urinary sodium >10mM

27. A30 year old man had a blood pressure of 150/100 mmHg. Clinical examination was normal. Which one ofthe following would suggest secondary hypertension?
a. 24 hour urinary protein excretion of 1.6g (<0.2)
b. A Creatinine clearance of 90 mL/min (70140)
c. Left ventricular hypertrophy criteria on the ECG
d. The presence of arteriovenous nipping on fundoscopy.
e. Serum potassium of 3.9 mmol/L (3.54.9)

28. Whichof the following statements regarding idiopathic membranous nephropathy is correct?
a. It characteristically presents in the second decade of life.
b. Progression to endstage renal failure is rapid.
c. immune complex deposits are typically seen in the glomerular mesangium.
d. Males are twice as commonly affected as females.
e. The nephritic syndrome is a characteristic presentation.

29. Inasymptomatic chronic renal failure:
a. there is increase in tubular excretion of urate
b. serum ionised [calcium] is normal
c. serum [phosphate] characteristically increased before GFR falls to 30ml/min
d. increase serum [alkaline phosphotase] mainly due to liver isoenzyme
e. decrease in blood pressure accompanied by increase in extracellular fluid

30. Antineutrophiliccytoplasmic autoantibodies:
a. positive only in Wegener's syndrome associated with renal disease
b. cause neutropenia in SLE
c. present in inflammatory bowel disease
d. increased in systemic lupus erythematosus
e. ANCA positive glomerulonephritis characteristically causes nephrotic syndrome

31. Inchronic untreated renal failure which of the following findings is characteristic?
a. Metabolic alkalosis
b. Hypokalaemia
c. Hyperosmolar dehydration
d. Hypercalcaemia
e. Hypercalcinuria

32. A46yearoldwoman develops nephrotic syndrome and is awaiting further tests to establish theunderlying aetiology. In which circumstance would corticosteroids be most effective in reversing thenephrotic syndrome?
a. Membranous nephropathy
b. Minimal change disease
c. Primary amyloidosis
d. Renal vein thrombosis
e. Mesangial IgA disease

33. Whichof the following is true concerning a 68 year old male with type 2 diabetes diagnosed with type IVrenal tubal acidosis?
a. Aminoaciduria would be expected.
b. Fludrocortisone treatment is effective
c. Increased Glomerular filtration rate is expected.
d. Increased urinary bicarbonate would be expected.
e. Normal renal handling of K+ and H+

34. Whichof the following is least likely with the HLA complex?
a. Class I products recognised by CD8
b. Class II products used to activate CD4
c. polymorphism in Class I genes, but not Class II
d. multiple sclerosis associated with HLA DR2
e. HLA matching more important in kidney/pancreas transplant than liver transplant

35. Thefollowing are features of pseudohypoparathyroidism:
a. Increased urinary phosphate and cAMP with PTH infusion
b. Low serum PTH
c. Low serum calcium and low serum phosphate
d. Low serum calcium and high serum phosphate
e. Shortened 2nd and 3rd metacarpals

36. A60yearoldman was diagnosed last year with adenocarcinoma of the lung, and a 4 cm mass lesion wastreated with a right lower lobectomy. He now has an abdominal CT scan that reveals scattered hepatic masslesions and hilar lymphadenopathy. For several weeks, he has had increasing malaise. A urinalysis revealsmarked proteinuria, and a 24 hour urine protein collection is 2.7 g/24hr. His serum urea is 30 mmol/L (2.5 7.5)with creatinine of 450 μmol/L (60 110).A renalbiopsy is performed, and there is focal deposition of IgG and C3 with a granular pattern. He is most likely tohave which of the following conditions?
a. Goodpasture's syndrome
b. Membranous glomerulonephritis
c. Minimal change glomerulonephritis
d. Nodular glomerulosclerosis
e. Rapidly progressive glomerulonephritis

37. Erythropoietintherapy causes
a. Benign intracranial hypertension
b. Myositis
c. Hypotension
d. Seizures
e. Osteoporosis

38. Whichof the following is a feature of cystinuria?
a. accumulation of cystine in the kidney
b. a useful response to acidification of urine
c. autosomal dominant inheritance
d. excessive urinary arginine excretion
e. radiolucent urinary calculi

39. A19yearoldfemale developed pleural effusions, ascites and ankle swelling. Her blood pressure was112/76 mmHg.

Investigations revealed:

serum alanine transferase 17 U/L (5 15)

serum total bilirubin 17 umol/L (1 22)

serum albumin 21 g/L (34 94)

serum total cholesterol 9.8 mmol/L (<5.2)

What is the next most appropriate investigation?

a. Antinuclear antibody
b. Pregnancy test
c. Prothrombin time
d. Serum protein electrophoresis
e. Urinary protein estimation

40. A15yearoldgirl was seen by her family physician because of increasing lethargy. She had a recenthistory of the "flu". Biochemistry tests show that she has renal impairement.

serum sodium 140 mmol/L (137 144)

serum potassium 4.2 mmol/L (3.5 4.9)

serum urea 28 mmol/L (2.5 7.5)

serum creatinine 280 μmol/L (60 110)

Her condition does not improve after several weeks on corticosteroid therapy, so a renal biopsy is performed.The biopsy demonstrates the presence of segmental sclerosis of 3 of 10 glomeruli identified in the biopsyspecimen. Immunofluorescence studies and electron microscopy do not reveal evidence for immune deposits.

What is the most appropriate advice to give regarding her condition?

a. She has an underlying malignancy
b. She may require a renal transplant in 10 years
c. She will improve if she loses weight
d. She will likely develop a restrictive lung disease
e. She will probably improve with additional corticosteroid therapy

41. WhichONE of the following is true concerning Antidiuretic hormone (ADH)?

a. Carbamazepine potentiates it's release
b. Ethanol potentiates it's release
c. It circulates in the blood bound to neurohypophysin
d. It is a cyclic octapeptide
e. It is synthesised in the posterior pituitary

42. A30yearoldfemale presents with fevers, and a 3 month history of malaise.

Results show:

Creatinine 250micromol/l

Complement C3 23 mg/dL (65 190)

What is the likely diagnosis?

a. HIV nephropathy
b. Infective endocarditis
c. Membranous Nephropathy
d. Microscopic Polyangiitis
e. Minimal change nephropathy

43. Whichone of the following biochemical abnormalities would fit with a diagnosis of Bartter's syndrome?

a. Hyperchloraemia
b. Hyperkalemia
c. Hypernatraemia
d. Hyperphosphataemia
e. Hypokalemia

44. A35yearoldfemale presents with malaise, thirst and increasing nocturia over the last month. Six monthsago she attended the Emergency Department with an episode of renal colic. One month previously her GP hadnoted an eruptive, painful, erythematous rash on the anterior shins, which was selflimiting. What is the likely cause of her symptoms?

a. Hypercalcaemia
b. Hyperglycaemia
c. Hypocalcaemia
d. Hypokalaemia
e. Hyperoxaluria

45. A 21-year-old man presents with painless haematuria which he has noticed in thelast 3 days. He suffers from type 1 diabetes which is well controlled, but is otherwisefit and healthy. The patient has recently recovered from a mild throat infection. Urine dipstick analysis reveals blood and protein in the urine. The most likely diagnosis is:

a. Henoch–Schonleinpurpura
b. Benign prostate hypertrophy
c. IgA nephropathy
d. Diabetic nephropathy
e. Urinary tract infection (UTI)

46. A 74-year-old type 2 diabetic woman undergoes a bowel resection for cancer of thecolon. She is well prior to the operation with well–controlled diabetes and no otherunderlying disease. The operation is successful and the patient is given postoperativeinsulin and IV dextrose. Two days after the operation she becomes very agitated.

Sodium 124 (135–145)

Potassium 3.3 (3.5–5.0)

Urea 3.1 (3.0–7.0)

Glucose 7.2 (2.5–6.0)

Serum osmolality 265 (275–295)

Urine osmolality 150

The most likely cause of the hyponatraemia is:

a. Addison's disease
b. Syndrome of inappropriate anti-diuretic hormone (SIADH)
c. Diabetic nephropathy
d. Excess insulin
e. Water overload

47. A 16-year-old boy presents with a low-grade fever which started 1 week ago. Thepatient also reports feeling fatigued and indicates pain in his joints. His parentsmention that he has been visiting the toilet more often than usual. A urine dipstickshows trace proteins, while a blood test shows raised eosinophils. The most likely diagnosis is:

a. Acute tubulointerstitial nephritis
b. Renal failure
c. Diabetes mellitus
d. UTI
e. Reactive arthritis

48. A 58-year-old African man presents with pitting oedema of his ankles. He suffersfrom recently diagnosed hypertension, but is otherwise healthy. Blood results showlow albumin and a urine dipstick is positive for protein. The most appropriateinitial treatment is:

a. High protein diet
b. Diuretics
c. Prophylactic anticoagulation
d. ACE inhibitor
e. Bed rest

49. A 33-year-old woman presents with severe right flankpain. The pain started 3 hours ago and is not constant, occasionally moving towardsher right iliac fossa. The patient also feels nauseous and has a low-grade fever. Themost appropriate investigation is:

a. Abdominal x-ray
b. Magnetic resonance imaging (MRI) scan
c. Intravenous urography
d. Computed tomography (CT) scan
e. Abdominal ultrasound (US) scan

50. A 42-year-old diabetic Asian male complains of dysuria, increased urinary frequencyand general malaise for the past six months. In the last few days, he has noticed bloodin the urine. Examination of the urine shows the presence of neutrophils with noorganisms detected on urine culture. The most likely diagnosis is:

a. Tuberculosis
b. Renal cell cancer
c. Diabetic nephropathy
d. Bladder cancer
e. Nephritic syndrome

51. A 17-year-old patient is referred by his GP after presenting with periorbitaloedema.The patient noticed the oedematous eyes 3 days ago, but reports feeling unwellsince a throat infection 3 weeks ago with nausea and vomiting in the last week.A urine dipstick is positive for protein and blood while serum creatinine and urea are mildly deranged. The most likely diagnosis is:

a. Nephrotic syndrome
b. Nephritic syndrome
c. Renal failure
d. Glomerulonephritis
e. Von Grawitztumour

52. 28-year-old woman patient who is 13 weeks pregnant presents for an antenatalclinic appointment. The patient feels embarrassed when asked to provide a urinesample and produces enough for a urine dipstick test only which is positive forleukocytes and nitrites. The patient denies any symptoms. The most appropriate treatment is:

a. Trimethoprim
b. Quinolone
c. Tetracycline
d. Cephalexin
e. Ampicillin

53. A 32-year-old builder presents in accident and emergency in a distressed state. Hereports suffering from chest pain for the last 2 weeks, the pain is sharp and onlyoccurs when he moves heavy objects. He has a family history of cardiovasculardisease and is worried about a heart attack. His blood gas findings are as follows:

pH=7.47; PCO2 =3.3; PO2=15.3; bicarbonate=17.53. The most likely diagnosis is:

a. Respiratory acidosis with metabolic compensation
b. Acute metabolic acidosis
c. Respiratory alkalosis with metabolic compensation
d. Metabolic acidosis with respiratory compensation
e. Acute respiratory alkalosis

54. A 21-year-old woman complains of urinary frequency, nocturia, constipation andpolydipsia. Her symptoms started 2 weeks ago and prior to this she would urinatetwice a day and never at night. She has also noticed general malaise and some painin her left flank. A urine dipstick is normal. The most appropriate investigation is:

a. Serum phosphate
b. Serum calcium
c. Parathyroid hormone (PTH)
d. Plasma glucose
e. Serum potassium

55. A 58-year-old man presents with breathlessness, he reports feeling unwell over thelast three months with nausea, vomiting and difficulty breathing. You notice hisankles are swollen and he has bruises on his arms. The patient mentions he has notbeen urinating as often as normal. The most appropriate investigation is:

a. Urine microscopy
b. Renal ultrasound
c. Serum electrolytes, urea and creatinine
d. Renal biopsy
e. Chest x-ray

56. A 24-year-old man presents with a four-month history of abdominal pain whichhas been getting worse. The patient describes the pain as generalized, dull incharacter and does not radiate but often occurs alongside loin pain. An irregularmass is palpable in both flanks and a mid-systolic click can be auscultated. Themost appropriate investigation is:

a. MRI scan
b. Abdominal US scan
c. Excretion urography
d. CT scan
e. Abdominal x-ray

57. A 55-year-old woman is seen in clinic, she has a ten-year history of type 2diabetes treated with glibenclamide. Her blood pressure is 148/93 with new onsetproteinuria, her serum results show elevated lipid levels, glycatedhaemoglobin of5.5 per cent and fasting glucose of 6.0 mmol/L. A renal biopsy shows the presenceofKimmelstiel–Wilson lesions. The most appropriate management is:

a. Increase oral hypoglycaemic dosage
b. ACE II antagonists
c. Start cholesterol lowering therapy
d. Start ACE inhibitors
e. Start renal dialysis

58. A 52-year-old man complains of a 3-week history of malaise and shortness ofbreath. He has lost weight in the last few months but attributes this to a loss ofappetite possibly due to stress at work. On examination, he has a palpable mass inthe right lumbar region. He has no urinary symptoms. However, the urine dipstick detected blood. The most likely diagnosis is:

a. Renal abscess
b. Renal cyst
c. Renal carcinoma
d. Adrenal tumour
e. Pyelonephritis

59. A 37-year-old man presents with a 5-day history of haematuria. Abdominalexamination is unremarkable. Urine analysis reveals hypercalciuria and excretionurography reveals small calculi within the papilla of the patient's right kidney. Thepatient has presented several times in the past with UTIs and renal stones, but isotherwise healthy. The most likely diagnosis is:

a. Medullary sponge kidney
b. Renal cell carcinoma
c. Medullary cystic disease
d. Horse-shoe kidney
e. Tertiary hyperparathyroidism

60. A 38-year-old woman presents to her GP with a 2-week history of dysuria,haematuria and shortness of breath. She suffers from chronic headaches and hasbeen taking ibuprofen in order to treat them. She has a history of cardiovasculardisease in the family and a friend recommended she use aspirin to keep healthy. The most appropriate investigation is:

a. Retrograde pyelography
b. Renal biopsy
c. Abdominal x-ray
d. Antegrade pyelography
e. CT scan of the kidney

61. A 64-year-old man is undergoing treatment for polycythaemiavera with chemotherapy, he has no other medical problems. Shortly after starting treatment, the patient becomeslethargic, feels unwell and suffers weight loss. He attributes this is to the chemotherapy. After 2 weeks, the patient becomes oliguric, complains of bilateral flank pain andbecomesoedematous. The most likely diagnosis is:

a. Analgesic nephropathy
b. Renal infarction
c. Hyperuricaemic nephropathy
d. Acute tubulointerstitial nephritis
e. Chronic renal failure

62. A 67-year-old diabetic female is brought infollowing acollapse at her home. She was found by her daughter who said she saw the patientgoing to the toilet and then hearing her collapse. The patient did not lose consciousnessand appears well. Her supine blood pressure is 100/70 and standing 115/79. Urinedipstick is positive for glucose, nitrates, leukocytes and haematuria. The most likelydiagnosis is:

a. Diabetic ketoacidosis
b. UTI
c. Orthostatic hypotension
d. Diabetic nephropathy
e. Hypoglycaemia

63. An 18-year-old man presents with general malaise and lethargy for the last 2 weeks,he denies any weight loss and has maintained a good appetite. On examination, thereare no abnormalities except for sacral oedema and a polyphonic wheeze. Urinedipstick is positive for protein only and blood pressure is 140/90. The most likelydiagnosis is:

a. Nephritic syndrome
b. Nephrotic syndrome
c. Goodpasture's disease
d. Thin-basement membrane nephropathy
e. Minimal change glomerulonephritis

64. A 6-year-old has a sore throat and has been given antibiotics. Three weeks later, herepresents feeling feverish with nausea, vomiting and tea-coloured urine. Urinedipstick confirms haematuria and protein. Blood pressure is 100/60 mmHg. The mostlikely diagnosis is:

a. Nephritic syndrome
b. UTI
c. Acute tubulointerstitial nephritis
d. Minimal change glomerulonephritis
e. Post streptococcal glomerulonephritis

65. A 21-year-old man complains his urine has turned a faint red in the last week. Hedenies any significant changes in his diet or lifestyle and has no other medicalproblems except for sensorineural deafness diagnosed when he was young. Onexamination, you notice retinal flecks and urine dipstick confirms protein and blood. The most likely diagnosis is:

a. Alport's syndrome
b. Benign familial haematuria
c. Wolfram syndrome
d. IgA nephropathy
e. Down's syndrome

66. A 65-year-old overweight man presents with a 2-week history of haematuria.The patient denies any other symptoms and his blood pressure is 128/83 mmHg. Hesuffers from no other medical problems but admits to being a chronic smoker sincethe age of 16. He has tried to lose weight using herbal remedies for three years, buthe has only noticed significant weight loss in the last week despite stopping theremedies months ago. The most likely diagnosis is:

a. Chinese herb nephropathy
b. Bladder cancer
c. Schistosomiasis
d. Acute tubulointerstitial nephritis
e. Renal cancer

67. A 53-year-old man with HIV suffers a ruptured aortic aneurysm and is rushed intotheatre, he undergoes a successful operation and is recovering on the wards in astable condition. One day after the operation, he becomes oliguric with mildlyelevated urea and creatinine. After 1 week, he becomes polyuric with a GFR of 30. The most likely diagnosis is:

a. Haemolytic–uraemic syndrome
b. Acute tubular necrosis
c. SIADH
d. HIV nephropathy
e. Acute renal failure

68. A 64-year-old woman with type 1 diabetes presents to clinic with several monthsof sinus problem and a 4-day history of oliguria. Her blood pressure is 137/80,serum results show mildly elevated urea and creatinine, absence of anti-GBMantibodies, while a C-ANCA assay is positive. Red blood cell (RBC) casts are presentin the urine and her renal biopsy reveals glomerular crescents. The most likelydiagnosis is:

a. Post-streptococcal glomerulonephritis
b. Goodpasture's syndrome
c. Minimal change glomerulonephritis
d. Rapidly progressive glomerulonephritis
e. Wegener's granulomatosis

69. A 68-year-old obese Asian man is seen in the hypertension clinic. His bloodpressure is 151/93 and he suffers from poorly controlled type 2 diabetes. Bloodresults demonstrate elevated serum urea and creatinine. An ultrasound scan showsasymmetry between the two kidneys and on examination audible abdominal bruitsare auscultated. Urine dipstick did not detect any blood or protein. The bestinvestigation is:

a. CT angiography
b. Doppler ultrasonography
c. Abdominal x-ray

d. Renal arteriography
e. Renal biopsy

70. A 63-year-old woman presents in accident and emergency with a 3-day history ofworsening abdominal pain and mild flank pain. Examination reveals pain in thesuprapubic region, but otherwise the abdomen is soft with no masses. The patientdenies any other symptoms, such as dysuria, but mentions she has had difficultypassing urine in the last week and is only able to provide a small urine sample whichis odorous and bloody. She has no other medical problems, but admits to being along-term smoker. An ultrasound scan of renal system is most likely to show:

a. Bladder dilation
b. Ureteral stricture
c. Bilateral hydronephrosis
d. Renal cysts
e. Renal cancer

71. A 19-year-old man is recently diagnosed with type 1 diabetes and attends yourclinic to ask about possible omplications in the future. He mentions an uncle whohas end-stage renal disease due to poorly controlled diabetes and specificallyenquires about testing for early signs of renal impairment. The most appropriateinvestigation is:

a. Blood pressure
b. Microalbuminuria
c. Serum creatinine
d. Serum electrolytes
e. Urine dipstick for glucose

72. A 21-year-old man presents with lethargy over the last week, he has periorbitaloedema and proteinuria. The patient mentions he has been to hospital a number oftimes in the past due to the same symptoms as well as mild eczema. Light microscopyof a renal biopsy showed normal morphology. Electron microscopy of the renalbiopsy reveals the diffuse effacement of the epithelial podocytes. The most appropriatetreatment is:

a. Cyclosporin
b. No treatment
c. Probenecid
d. Renal transplant
e. Oral prednisone

73. A 49-year-old woman attends your clinic suffering from chronic renal failure due toprogressive glomerular disease. She appears well and her blood pressure is 141/92 mmHg. Blood tests reveal elevated phosphate, serum creatinine and urea, while calcium levels arelow. Her estimated glomerular filtration rate is 35 mL/min/1.73 m2. You also notice thepatient's cholesterol levels are moderately raised. The most appropriate management is:

a. Sevelamer
b. Parathyroidectomy
c. Oral vitamin D
d. Cinacalcet
e. Renal dialysis

74. A 66-year-old woman with poorly controlled type 2 diabetes presents with a 2-day history of severe pain in the right flank, nausea and feversthat come and go. On examination, the patient appears unwell, sweaty and hasvisible rigors with a temperature of 38°C. The patient denies any recent travel. Urinedipstick is positive for protein, blood, leukocytes and nitrates. A CT scan of theabdomen reveals gas in the renal parenchyma area. The most likely diagnosis is:

a. Renal stones
b. Renal infarction
c. Diabetic nephropathy
d. Renal TB
e. Pyelonephritis

Nephrology - Answers

1.	a	16.	d	31.	e	46.	e	61.	c
2.	a	17.	e	32.	b	47.	a	62.	b
3.	b	18.	d	33.	b	48.	b	63.	e
4.	e	19.	e	34.	c	49.	e	64.	e
5.	b	20.	d	35.	d	50.	a	65.	a
6.	c	21.	c	36.	b	51.	d	66.	b
7.	c	22.	b	37.	d	52.	d	67.	b
8.	a	23.	a	38.	d	53.	e	68.	e
9.	a	24.	e	39.	e	54.	b	69.	d
10.	b	25.	c	40.	b	55.	c	70.	c
11.	b	26.	a	41.	a	56.	b	71.	b
12.	b	27.	a	42.	b	57.	d	72.	e
13.	d	28.	d	43.	e	58.	c	73.	a
14.	d	29.	b	44.	a	59.	a	74.	e
15.	c	30.	c	45.	c	60.	e		