

Renal and Urology MCQ's

- Regarding UTI's will not increase your risk of developing one?
 - Pregnancy
 - Diabetes mellitus
 - Being female
 - Catheterization
 - Urinary obstruction
- Which is incorrect regarding the investigation of UTI?
 - The sensitivity of dipstick for nitrites is 96%.
 - A positive dipstick for leucocyte esterase is 96% specific for $>10 \text{ wbc/mm}^3$.
 - A bacterial culture with $> 10^5$ has 95% probability of representing infection.
 - Use of blood cultures in does not change management when urine culture is taken.
 - All patients with pyelonephritis require follow-up USS of kidneys.
- Which antibiotic course is inappropriate for clinical scenario?
 - Acute simple cystitis – trimethoprim for 3 days in otherwise well young women.
 - Acute uncomplicated pyelonephritis – gentamycin + amoxicillin IV initially followed by 7 days of Augmentin orally.
 - Pregnancy associated cystitis – nitrofurantoin 5 mg QID for 14 days.
 - Acute simple cystitis in male patients – Augmentin or trimethoprim for 14 days.
 - Dysuria with $< 10^3$ organisms grown on culture failed to improve on trimethoprim – doxy.
- Which is incorrect regarding acute renal failure?
 - In pre-renal failure the ratio of urea: creatinine is increased above normal.
 - Post-renal obstruction is an uncommon cause of ARF.
 - The most common cause of renal ARF is acute tubulointerstitial nephritis.
 - Urinalysis with microscopic hematuria, pyuria, and presence of granular, epithelial and RBC casts is consistent with acute glomerulonephritis.
 - In renal ARF the urine Na is $> 10 \text{mmol/l}$ and osmolality < 350 .
- In which of the following scenarios is administration of calcium unwise with hyperkalemia?
 - Rhabdomyolysis.
 - Nephrotoxic ATN.
 - Ischaemia ATN.
 - Acute glomerulonephritis
 - Severe dehydration.
- Which is not an absolute indication for dialysis in ARF?
 - Refractory hyperkalemia $>6.5 \text{ mmol/l}$.
 - Pulmonary oedema.
 - Encephalopathy
 - Uncontrollable acidosis.
 - Creatinine $.1.0 \text{ mmol/l}$.
- Which is the most common form of acute glomerulonephritis?
 - Post streptococcal.
 - IgA nephropathy
 - Rapidly progressive glomerulonephritis
 - Goodpasture's syndrome
 - Membranous glomerulonephritis.
- Which is incorrect of nephrotic syndrome?
 - $> 3\text{g}$ proteinuria per day.
 - Associated with hyperlipidemia.
 - May be caused by drugs such as gold and ACEI.
 - Membranous glomerulonephritis is the most common cause of primary nephrotic syndrome in adults.
 - Hypertension is characteristic.

9. Which is not a relatively common finding in ESRF patients?
- Metastatic calcification.
 - Peripheral neuropathy
 - Hypophosphatemia
 - Hyperparathyroidism
 - Peptic ulcer disease and GI bleeding.
10. Which is incorrect regarding CAPD peritonitis?
- Gram stain will be positive in approx 10-40% of culture positive bags.
 - Staph aureus is the most common organism isolated.
 - Antibiotics are not needed parentally usually.
 - Vancomycin as a one off 2 grams to CAPD bags is all that is needed for proven gram positive infection.
 - Cell count in bags must be > 100 leucocytes with > 50% neutrophils.
11. Which is incorrect of renal transplant patients?
- Identical twin donor and recipient, require no immunosuppression..
 - Graft rejection may present with graft tenderness, decreased urine output and increased creatinine.
 - Infection is the most common cause of morbidity and mortality in the early stages, with 80% developing infection in the first year.
 - Rejection of graft over 1 year post transplant indicated chronic rejection which results in progressive loss of renal function.
 - Cyclosporine toxicity rarely is a complication due to predictable levels.

1=B 2=A 3=B 4=C 5=A 6=E 7=B 8=E 9=C 10=B 11=E

1. Which is the most likely organism to cause a UTI?

- staph saprophyticus
- e coli
- pseudomonas
- klebsiella
- strep faecalis

2. Which is not a recommended regimen for treatment of UTI in the non pregnant woman?

- trimethoprim 300 mg orally daily for 5 days
- augmentin duo orally b.d for 5 days
- cephalexin 500 mg orally b.d for 5 days
- nitrofurantoin 50 mg qid for 5 days
- all of the above are correct

3. For what length of time should a man with a UTI be treated for?

- 3 days
- 5 days
- 7 days
- 10-14 days
- 20 days

4. Which statement is incorrect regarding the treatment of UTI in pregnant women?

- regardless of the antibiotic chosen, the duration of treatment should be 10-14 days
- augmentin duo b.d
- nitrofurantoin 50mg qid
- cephalexin 250mg qid
- trimethoprim 300mg daily

5. What is usually considered the number of white cells necessary on microscopy to make the diagnosis of a definite UTI?

- a) 1000 per mm³
- b) 10000
- c) 50000
- d) 100000
- e) 500000

6. Regarding urinalysis which is incorrect?

- a) the haematuria square will also be positive for myoglobinuria and haemoglobinuria
- b) pyuria has is nearly always present in a UTI
- c) nitrates are not present in all UTIs, only those caused by coagulase splitting bacteria
- d) nitrates are not seen if the UTI is caused by gm+ve or pseudomonas
- e) Vitamin C gives many false positives – nitrites, bilirubin, ketonuria

7. If a patient presents with dysuria and only 100-1000 WBC should they receive antibiotic treatment?

- a) yes
- b) no
- c) no, but repeat culture in 2 weeks
- d) only if two such results in two specimens two days apart
- e) just ural sachets

8. What is the most common age group for testicular torsion?

- a) <10 years
- b) 12-18 years
- c) 20-25 years
- d) 30-50 years
- e) >60 years

9. Which is not a cause of epididymo-orchitis?

- a) amioderone
- b) mumps
- c) pseudomonas
- d) cryptococcus
- e) erythromycin

10. Which group of people are unlikely to need treatment for their asymptomatic bacteriuria- assuming their renal tracts are normal?

- a) pregnant women
- b) young children
- c) non pregnant women
- d) men under 60 years of age
- e) neonates

11. Which is a correct statement regarding treatment of a torsed appendix testis?

- a) analgesia alone is all that is required
- b) analgesia plus antibiotics for 10 days
- c) surgical resection is mandatory
- d) local anaesthetic infiltration into the appendix is often used
- e) methotrexate has been shown to be beneficial

12. Which size renal stones have a 90% chance of passing?

- a) <3mm
- b) <5mm
- c) <7mm
- d) <8mm
- e) it is not size dependant

13. Which agent has been shown to be highly effective in treatment of renal colic pain?
- Hyoscine butylbromide
 - atropine
 - nifedipine
 - NSAID, no one in particular is superior
 - GTN
14. What percentage of kidneys stones have microscopic haematuria?
- 100%
 - 20%
 - 50%
 - 70%
 - 90%
15. At what rate should IV fluids be given in acute renal colic?
- so as to get 200ml/hr urine
 - 2 litres over 2 hours unless CVS contraindicated
 - maintenance
 - 1 litre over 1 hour unless CVS contraindicated
 - it is relatively contraindicated
16. What is the role of plain AXR in diagnosis of renal colic?
- it should always be done
 - it is of marginal value and not cost effective, therefore should not be done routinely
 - it will show the majority of renal calculi
 - its sensitivity is too low to be of great value
 - B,C,D are correct
17. Which statement is incorrect regarding prostatitis?
- it is usually due to the organisms of sexually transmitted diseases
 - there is a tender enlarged prostate on PR examination
 - if systemically unwell use iv gentamicin and ampicillin
 - co trimoxazole is a good oral agent as it concentrates in prostatic fluid
 - urine culture usually reveals the organism
18. Which grade of renal injury involves a deep laceration into the collecting system?
- 1
 - 2
 - 3
 - 4
 - 5
19. Which is the imaging modality of choice in suspected renal haematuria?
- IVP
 - CT
 - Angiography
 - Retrograde ureteroscopy
 - ultrasound
20. Which statement is incorrect regarding renal trauma?
- blunt trauma with microscopic haematuria and no other signs of injury does not need imaging
 - blunt trauma with microscopic haematuria and fracture 11/12 ribs and flank tenderness warrants imaging
 - a major renal injury cannot occur without macroscopic haematuria
 - penetrating trauma in the region of the kidney with macroscopic haematuria warrants imaging
 - penetrating trauma in the region of the kidney with microscopic haematuria warrants imaging

21. Which statement regarding bladder injury is incorrect?
- a) they usually rupture intraperitoneally rather than extraperitoneal
 - b) they are usually associated with a pelvic fracture
 - c) inability to void and macroscopic haematuria and meatal blood are symptoms
 - d) investigation of choice is retrograde cystogram
 - e) the rupture can be both intra and extraperitoneal
22. Which is the most common cause of these renal causes of acute renal failure?
- a) ischemic ATN
 - b) nephrotoxic ATN
 - c) acute tubulointerstitial nephritis
 - d) renal artery stenosis
 - e) acute glomerulonephritis
23. Haematuria, hypertension, proteinuria and red cell casts in the urine are indicative of?
- a) nephrotic syndrome
 - b) hepatorenal syndrome
 - c) nephritic conditions
 - d) rhabdomyolysis
 - e) amanita phalloides poisoning
24. What percentage renal function can be lost but still have a creatinine in the normal range?
- a) 20%
 - b) 35%
 - c) 50%
 - d) 60%
 - e) 70%
25. Which of these findings would not suggest CRF as opposed to ARF?
- a) normochromic, normocytic anaemia
 - b) radiologic evidence of renal osteodystrophy
 - c) polyuria, nocturia
 - d) 10cm size kidneys
 - e) family history of renal disease
26. Which of these is not a feature of pre renal ARF?
- a) decreased GFR
 - b) high specific gravity
 - c) urinary sodium < 10
 - d) blood urea:creatinine ratio > 100:1
 - e) urine osmolality < 500
27. Which is not a principle of treatment in ATN due to rhabdomyolysis?
- a) correct hyperkalemia
 - b) give normal saline to correct hypovolemia
 - c) give furosemide or mannitol to encourage a diuresis
 - d) fasciotomy as indicated
 - e) aim for pH < 6
28. Which statement is true?
- a) trials of high dose furosemide have not proven it to be of benefit in ARF, unless the pt is fluid overloaded
 - b) dopamine at 1-5mg/kg/min is only indicated where hypovolemia has been corrected but the pt is still oliguric despite the use of diuretics
 - c) both A and B are incorrect
 - d) both A and B are correct

29. Which is the most common world wide cause of haematuria?
- neoplasia
 - infection
 - shistosomiasis
 - BPH
 - calculi
30. Which statement is incorrect regarding post streptococcal GN?
- it is seen especially in children
 - it usually occurs 7-14 days post throat infections
 - it usually occurs 7-14 days post skin infections
 - treatment of the primary illness with antibiotics will prevent GN
 - the disease can range from isolated haematuria to severe GN
31. Which is the most common cause of CRF?
- diabetes mellitus
 - hypertension
 - glomerulonephritis
 - polycystic kidney disease
 - analgesic nephropathy
32. What is the cause of most common cause of death in pts with CRF?
- infection/sepsis
 - cardiac causes
 - CVA
 - Malignancy
 - Self withdrawal from dialysis
33. Which biochemical abnormality is not seen in CRF?
- Hyperparathyroidism (secondary)
 - hypocalcemia
 - hyperphosphatemia
 - increased erythropoietin (secondary)
 - anaemia
34. Which is not a false cause of haematuria?
- beetroot
 - raspberries
 - rhubarb
 - cimetidine
 - NSAID

ANSWERS

- 1)B 2)A 3)D 4)E 5)B 6)B 7)A 8)B 9)E 10)C 11)A 12)B
 13)D 14)E 15)C 16)E 17)A 18)D 19)B 20)C 21)A 22)A 23)C 24)D
 25)D 26)E 27)E 28)D 29)C 30)D 31)A 32)B 33)D 34)D

33. A 1mm renal calculi in the ureter will most likely impact at

- the pelvi-ureteric junction
- the vesico-ureteric junction
- the pelvic brim
- the bladder orifice
- all of the above

34. The commonest type of ureteric calculus is

- calcium oxalate
- triple phosphate
- urate
- cysteine
- granite

35. Regarding renal colic secondary to calculi:

- a) Females are more commonly affected than males
 - b) 50% of calculi are radio-opaque
 - c) It may present without haematuria
 - d) There is a 20% chance of recurrence by 5 years
 - e) A CT urogram uses radio-contrast to grade the level of renal obstruction
- Ros 2249-2251

33=B 34 = A 35 = C

8 Which of the following statements regarding the investigation and treatment of urinary tract infection is correct

A woman presenting with a second UTI 2 months after the first is most likely having a relapse

- a) Asymptomatic bactiuria in pregnancy does not require treatment
- b) Leukocyte esterase is a sensitive test regardless of the absolute degree of pyuria
- c) A single dose antibiotic regimen will adequately treat subclinical pyelonephritis
- d) Norfloxacin is not recommended as a first line treatment for uncomplicated UTI in females

9 Which of the following stones is most likely to be seen on xRay

- a) Urate stone obstructing the vesicoureteric junction
- b) Cholesterol stone in the common bile duct
- c) Struvite stone in the common bile duct
- d) Pigment stone in the gallbladder
- e) Mixed stone causing small bowel obstruction

10 The commonest cause of acute glomerulonephritis is

- a) Berger's disease (IgA nephropathy)
- b) Post streptococcal glomerulonephritis
- c) Goodpasture's syndrome (Anti-glomerular basement membrane disease)
- d) Systemic Lupus Erythematosus
- e) Renal vein thrombosis

8. E

9. D

10. A

513 A 60-year-old male with history of benign prostatic hypertrophy presents complaining of nausea and vomiting. Laboratory values include serum Na of 145 mmol/L, blood urea nitrogen (BUN) of 45 mg/dL, creatinine of 2.0 mg/dL, urine Na of 10, and urine creatinine of 80. Which of the following is the MOST likely diagnosis?

- (A) Prerenal failure
- (B) Acute tubular necrosis (ATN)
- (C) Glomerulonephritis
- (D) Postrenal failure
- (E) Pyelonephritis

514 All of the following can cause acute renal failure (ARF) EXCEPT

- (A) rhabdomyolysis
- (B) nonsteroidal antiinflammatory drugs (NSAIDS)
- (C) ethylene glycol
- (D) penicillin
- (E) iron

515 Which of the following patients with pyelonephritis can be safely treated as an outpatient?

- (A) A 75-year-old diabetic female
- (B) A 20-year-old 20-week pregnant female with mild abdominal cramping
- (C) A 30-year-old female with persistent vomiting and fever
- (D) A 33-year-old male with renal calculi
- (E) None of the above can be safely treated as outpatients

516 Which of the following is NOT an appropriate treatment for priapism?

- (A) Terbutaline 0.25 mg administered subcutaneously in the deltoid
- (B) Aspiration of corporeal blood
- (C) Ice-water enema
- (D) Neo-Synephrine instillation into the corpora cavernosa
- (E) Exchange transfusion

517 A 19-year-old male complains of acute onset of scrotal pain. Which of the following procedures is LEAST indicated?

- (A) Treat with cefixime and azithromycin and discharge home
- (B) Radionulide scan of the testes
- (C) Attempt manual detorsion
- (D) Urinalysis
- (E) Doppler ultrasound

518 Renal transplant patients should receive all of the following measures to prevent infection EXCEPT

- (A) measles, mumps, rubella (MMR) vaccine
- (B) nystatin
- (C) pneumococcal vaccine
- (D) hepatitis B vaccine
- (E) prophylaxis for dental procedures

519 A chronic renal dialysis patient is brought to the ED in cardiac arrest. The MOST likely cause is

- (A) pericardial effusion
- (B) hyperkalemia
- (C) hypocalcemia
- (D) malignant hypertension
- (E) postdialysis hypotension

520 Patients with renal stones should be admitted in all of the following cases EXCEPT

- (A) associated urinary tract infection
- (B) single kidney with obstruction
- (C) uncontrolled pain
- (D) stone > 6 mm
- (E) all of the above

521 A 22-year-old previously healthy male complains of dysuria. Genital examination is normal. Urinalysis

shows 5 to 10 white blood cells per high power field. Which of the following antibiotic regimens is MOST appropriate?

- (A) Ciprofloxacin, 500 mg orally twice a day for 2 weeks
- (B) Trimethoprim-sulfamethoxazole, two tablets orally twice a day for 3 days
- (C) Azithromycin, 1 g orally once, and ofloxacin, 400 mg orally once
- (D) Cephalexin, 500 mg orally for 7 days
- (E) Ciprofloxacin, 500 mg orally once

522 Which of the following is NOT a common cause of hematuria?

- (A) Urinary tract infection (UTI)
- (B) Rapidly progressing glomerulonephritis
- (C) Renal stone
- (D) Cancer
- (E) HIV nephropathy

523 Which of the following structures needs to be repaired in a fractured penis?

- (A) Tunica albuginea
- (B) Corpus spongiosum
- (C) Corpora cavernosum
- (D) Buck's fascia
- (E) Urethra

524 All of the following substances cause urinary retention EXCEPT

- (A) methamphetamines
- (B) ephedrine
- (C) cogentin
- (D) β -blockers
- (E) tricyclic antidepressants

525 All of the following are causes of postrenal failure EXCEPT

- (A) bladder tumor
- (B) phimosis
- (C) neurogenic bladder
- (D) urethral prolapse
- (E) retroperitoneal fibrosis

526 Which of the following is the MOST appropriate treatment for a patient with chronic renal failure and a clotted hemodialysis shunt?

- (A) Irrigate with heparinized saline
- (B) Angiogram to delineate the lesion
- (C) Consult a vascular surgeon
- (D) Give systemic urokinase 100,000 U
- (E) Initiate broad spectrum antibiotics

527 What percentage of urological stones are radiopaque?

- (A) 15
- (B) 30
- (C) 50
- (D) 75
- (E) 90

528 What is the MOST common causative organism for uncomplicated UTI?

- (A) *Chlamydia trachomatis*
- (B) *Klebsiella*
- (C) Proteus species
- (D) *Escherichia coli*
- (E) *Staphylococcus saprophyticus*

529 All of the following are risk factors for UTI EXCEPT

- (A) sexual intercourse
- (B) uterine prolapse
- (C) use of diaphragm and spermicide
- (D) irregular menses
- (E) lack of estrogen in postmenopausal women

530 Which of the following statements regarding infection in patients with continuous ambulatory peritoneal dialysis (CAPD) is TRUE?

- (A) Gram-negative bacteria are responsible for most cases of CAPD peritonitis
- (B) Confirmed peritonitis in a CAPD patient requires admission for parenteral antibiotics
- (C) Cell count in cases of peritonitis is at least 250 leukocytes
- (D) Infection is the most frequent complication of CAPD
- (E) The peritoneal catheter should be changed at the first sign of peritonitis

(513) The answer is A Fractional excretion of sodium [FENa(%)] is used in determining the cause of renal failure. $FENa(\%) = (\text{urine sodium}/\text{serum sodium})/(\text{urine creatinine}/\text{serum creatinine}) * 100$. The following table illustrates the laboratory findings in the different types of renal failure. Pyelonephritis should not cause renal failure. (Chapter 88)

Perenal Intrinsic renal Postrenal FENa(%) <1 >2 >2 Urine Na <20 >40 >40 Serum BYN:Cr >20:1 10:1 <10:1 Urine:serum Cr ratio >40:1 <20:1 <20:1

(514) The answer is E Myoglobinuria from rhabdomyolysis can cause acute tubular necrosis. NSAIDs cause preferential reduction in renal blood flow, leading to renal failure from hypoperfusion. Ethylene glycol can cause intraparenchymal obstruction in the kidneys, leading to ARF. Penicillin is a cause of allergic interstitial nephritis. Iron does not usually have renal toxicity. (Chapter 88)

(515) The answer is E Young, otherwise healthy, women with uncomplicated acute pyelonephritis may be treated as outpatients. Patients with comorbid diseases, immunosuppression, most pregnant women, and patients with unremitting fever or inability to tolerate oral fluids or medications should be admitted. Other risk factors for worse prognosis include old age, diabetes, renal calculi, urinary obstruction, recent hospitalization or instrumentation, and sickle cell anemia. These groups of patients should also be treated as inpatients with parenteral antibiotics. (Chapter 90)

(516) The answer is C Priapism is a painful, pathologic erection secondary to engorgement of the corpora

cavernosa but not the glans or corpus spongiosum. There are multiple etiologies for priapism including sickle cell anemia, medications, spinal cord injury, leukemic infiltration, and idiopathic. Neither sedation nor ice-water enema is effective in reducing the erection. Shunt surgery is necessary in some cases. (Chapter 91)

(517) The answer is A Testicular torsion is a urologic emergency. It can be difficult to distinguish clinically from torsion of the appendix testis or epididymitis. Urologic consultation for operative exploration should be obtained immediately when testicular torsion is suspected. Radionuclide scans and Doppler ultrasound studies can help confirm the diagnosis, but these are time consuming in a condition for which even a short delay could mean loss of the testicle. Manual detorsion can be attempted in the ED while awaiting surgical consultation. (Chapter 91)

(518) The answer is A Renal transplant patients are treated with immunosuppressive agents to prevent graft rejection. Important measures to prevent infection in these patients include pneumococcal vaccine, hepatitis B vaccine, trimethoprim-sulfa prophylaxis for *Pneumocystis carinii* pneumonia, and nystatin to prevent oral candida. MMR vaccine is an attenuated live vaccine and is potentially virulent in immunosuppressed patients. Cytomegalovirus is the most common infectious agent in transplant patients and may be suppressed with gancyclovir. (Chapter 96)

(519) The answer is B Although all of these choices can lead to cardiac arrest in chronic dialysis patients, hyperkalemia is the most common cause. Treatment should start with intravenous calcium gluconate and then continue with dextrose and insulin and with sodium bicarbonate. Other electrolyte disturbances seen in uremic patients include hypokalemia, hypocalcemia, and hypermagnesemia. (Chapter 89)

(520) The answer is E Renal colic patients with any of these features should be hospitalized for management and urologic consultation. Patients with renal insufficiency, severe underlying disease, or evidence of complete obstruction should be considered for admission and discussed with a urologist. Uncomplicated patients whose pain can be controlled with oral medications may be discharged home with a urine strainer and close follow-up with a urologist. (Chapter 92)

(521) The answer is C Men younger than 35 to 40 years with urinary tract signs and symptoms should be evaluated and treated presumptively for sexually transmitted urethritis. Cultures for Chlamydia and gonorrhea should be sent and empiric treatment for both administered. Appropriate treatment includes coverage of Chlamydia with doxycycline, 100 mg orally for 1 week, or a single dose of 1 g azithromycin. Gonorrhea can be treated with a single dose of ceftriaxone 250 mg intramuscularly, a single dose of cefixime 400 mg orally, ofloxacin 400 mg orally, or ciprofloxacin 500 mg orally. Ciprofloxacin, 500 mg twice a day for 2 weeks, is appropriate treatment for pyelonephritis, and trimethoprim-sulfamethoxazole will treat uncomplicated urinary tract infection in young women. The patient should be advised to have his sexual partners checked and to use condoms. (Chapter 90)

(522) The answer is E HIV nephropathy causes protein wasting in the urine. All the other choices are included in the broad differential diagnosis for hematuria. Trauma, instrumentation, bladder stones, and sickle cell anemia may also result in hematuria. The patient's age, history, and urinalysis results help to determine etiology. For example, bacteria and white blood cells are seen with infection. Red cell casts are found in rapidly progressive glomerulonephritis (usually associated with acute renal failure). Cancer is more likely in older smokers presenting with painless hematuria. (Chapter 93)

(523) The answer is A Tear of the penile tunica albuginea, the thick fascial layer around the corpora cavernosa, can occur during sexual intercourse or other sexual activity. The urethra is rarely injured, but a retrograde urethrogram may be necessary for full evaluation. The tunica albuginea should be surgically repaired. Buck's fascia is a thin layer of fascia encasing both the corpora cavernosa and the corpus spongiosum. (Chapter 91)

(524) The answer is D Urinary retention is frequently caused or exacerbated by pharmaceutical agents. Some of the most commonly implicated medications include antihistamines, anticholinergics, and antispasmodic agents. Sympathomimetics may cause urinary retention through their ALPHA-adrenergic stimulation. β -blockers can cause erectile dysfunction but do not contribute to urinary retention. (Chapter 91)

(525) The answer is D Postrenal failure can be caused by obstruction anywhere along the urinary tract, from the kidney and the ureters (usually bilateral involvement) to the bladder and the urethra. Bladder neck obstruction may result from neurogenic bladder or medications. Prostatic hypertrophy and functional bladder neck obstruction are the most common causes of postrenal failure. Urethral prolapse should not cause urinary obstruction. (Chapter 88)

(526) The answer is C Clotting and infection are the most frequent complications of vascular access shunts. A vascular surgeon should be consulted for thrombectomy in the case of a clotted shunt. Success on shunt reopening depends on the length of time it has been clotted. Rarely, some clotted shunts may be treated with local instillation of urokinase, into the arterial and venous sides. Manipulation or irrigation of anything into the shunt may lead to embolization of the clot. (Chapter 89)

(527) The answer is E Most renal stones are visualized on plain x-rays or noncontrast CT scan. The majority (75 percent) of renal calculi contain calcium with either oxalate or phosphate. Struvite or magnesium-ammonium-phosphate stones account for another 10 percent and are associated with urea-splitting bacteria and staghorn calculi. Another 10 percent of stones are composed of uric acid; the remainder are caused by cystine and other uncommon minerals. (Chapter 92)

(528) The answer is D All of these organisms may cause uncomplicated UTIs. However, E. coli is by far the most common bacterium. Anaerobic bacteria do not grow in urine. Unusual organisms, such as yeast or enterococcus, are often found in complicated UTI, especially in patients with underlying renal disease, recent hospitalization, or instrumentation of the urinary tract. (Chapter 90)

(529) The answer is D Sexual intercourse increases the concentration of bacteria in the bladder. Women susceptible to UTI should be advised to urinate after intercourse. Some spermicides enhance vaginal colonization with E. coli. Uterine and bladder prolapse and neurogenic bladder cause incomplete bladder emptying and thus reduce the ability of the bladder to clear bacteria. Some patients who are nonsecretors of blood group antigens may have a genetic susceptibility to UTI. There is no relation between irregular menses and UTI. (Chapter 90)

(530) The answer is D Infection is the most common complication of CAPD, and the majority of cases of peritonitis are caused by Staphylococcus species. Peritonitis is usually defined as more than 100 leukocytes with more than 50 percent neutrophils. Therapy consists of infusion of antibiotics with the dialysate into the peritoneal cavity. Parenteral antibiotics are only indicated if the patient is bacteremic. The peritoneal catheter needs to be changed when there have been multiple episodes of peritonitis or evidence of tunnel infection or intraabdominal abscess. (Chapter 89)