

1. A 55-year-old man with post-prostatectomy incontinence underwent placement of an artificial urinary sphincter with good results for three years. He now complains of recurrent incontinence. Examination of the device and cystoscopy suggests normal cycling and no cuff erosion. The next step is:
 - A. deactivate device for a two month trial period.
 - B. alpha-blocker therapy.
 - C. antimuscarinics.
 - D. urodynamics.
 - E. surgical exploration for repair or replacement.

2. The recommended method to prevent postoperative DVT in an otherwise healthy man undergoing TURP under spinal anesthesia is:
 - A. subcutaneous low dose unfractionated heparin.
 - B. low molecular weight heparin.
 - C. aspirin.
 - D. early ambulation.
 - E. obtain preoperative lower extremity duplex studies.

3. A 66-year-old woman has a polypoid mass at her urethral meatus. Office biopsy demonstrates a non-invasive high-grade squamous cell carcinoma. Radiologic staging reveals no evidence of regional or distant disease. The next step is:
 - A. topical 5-FU cream.
 - B. laser fulguration.
 - C. circumferential excision including excision of anterior vaginal wall.
 - D. XRT with ilioinguinal lymphadenectomy.
 - E. anterior pelvic exenteration with pelvic lymphadenectomy.

4. The nephrotoxic effect of cisplatin is due to:
 - A. efferent arteriolar constriction.
 - B. afferent arteriolar constriction.
 - C. pre-existing plasma volume contraction.
 - D. a direct toxic effect on renal tubular cells.
 - E. renal tubular obstruction from drug precipitation.

5. A 45-year-old woman with prior pelvic radiation for cervical cancer develops severe hemorrhage from the right ureteral orifice during routine exchange of a chronic indwelling 6 Fr ureteral stent. Over the next six hours, she continues to bleed but remains stable. The next step is:
 - A. replace stent with 8 Fr stent.
 - B. right percutaneous nephrostomy.
 - C. ureteroscopy with fulguration.
 - D. angiography and placement of endovascular graft.
 - E. open exploration.

6. With a pneumoperitoneum of 15 mmHg the following changes would be expected:

	Heart Rate	GFR	Mean Arterial Pressure
A.	increased	decreased	increased
B.	increased	decreased	decreased
C.	increased	increased	decreased
D.	decreased	increased	decreased
E.	decreased	decreased	increased

7. A 22-year-old sexually active woman complains of vulvovaginal itching and flu-like symptoms. On physical exam, she is afebrile and the only finding is a fissure in the left labia majora with no vaginal discharge. Urinalysis is negative. The treatment that can prevent recurrence of her symptoms is:

- A. hydrocortisone cream.
- B. diphenhydramine cream.
- C. ceftriaxone IM.
- D. imiquimod cream.
- E. oral acyclovir.

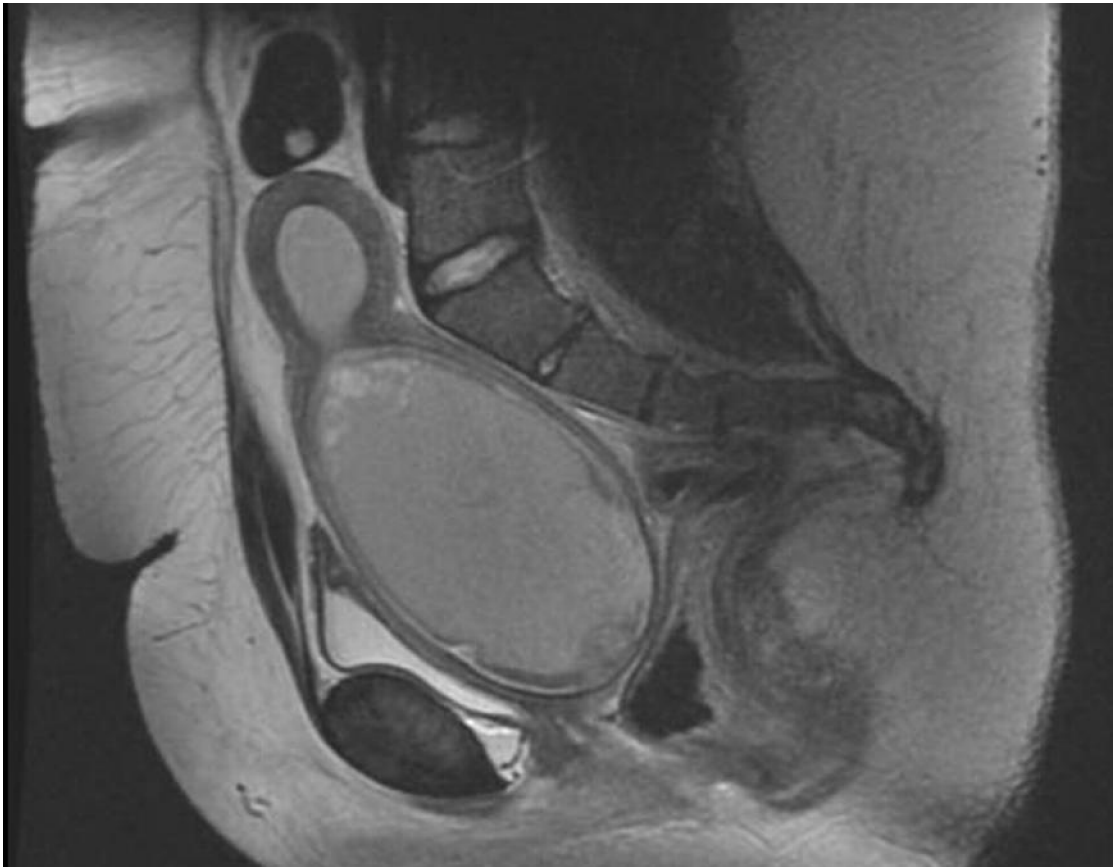
8. Sodium reabsorption in the proximal tubule:

- A. results in a hypotonic tubular fluid.
- B. occurs against a steep concentration gradient.
- C. is accompanied by bicarbonate excretion.
- D. occurs by an active transport mechanism.
- E. is regulated by aldosterone.

9. A 61-year-old man with a serum creatinine of 1.7 mg/dl has a 5 cm upper pole left renal mass. He undergoes left partial nephrectomy. After complete gross resection of the mass frozen section reveals lymphoma with diffuse infiltration of normal renal parenchyma by lymphoma at the margins. His cold ischemic time was 18 minutes. The next step is:

- A. no further operative intervention.
- B. re-excision of tumor bed.
- C. cryotherapy of margin.
- D. biopsy of contralateral kidney.
- E. radical nephrectomy.

10. A healthy one-month-old girl has lower abdominal distention. An ultrasound demonstrates a cystic mass behind the bladder. Follow up MRI scan is shown. Physical exam reveals normal appearing genitalia with a single opening in the urethral position with no evidence of a vaginal opening. These findings are most consistent with:
- A. Mayer-Rokitansky syndrome.
 - B. androgen insensitivity syndrome.
 - C. transverse vaginal septum.
 - D. imperforate hymen.
 - E. CAH.



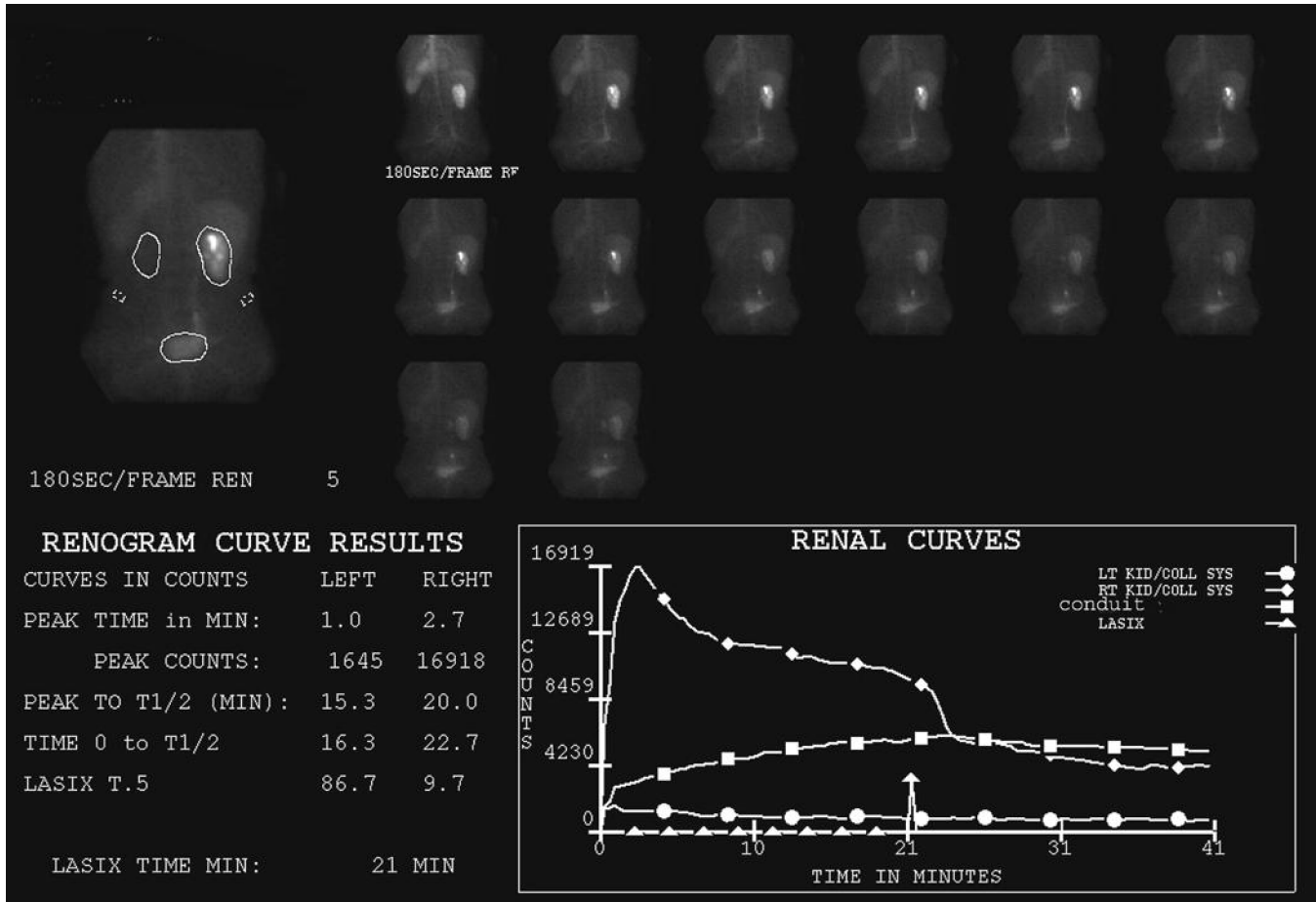
11. A 34-year-old man amputates his penis during a psychotic episode. He is brought to the emergency department in stable condition with cold ischemia time of the amputated penis of six hours. Microvascular reconstruction or macroscopic replantation of the penile shaft provides an equivalent outcome for:
- A. penile skin preservation.
 - B. urethral stricture formation.
 - C. erectile function.
 - D. penile sensation.
 - E. infection.

12. A 71-year-old healthy, uncircumcised man has a 4 cm penile tumor and undergoes partial penectomy. Pathology reveals high grade squamous cell carcinoma invading the corpora cavernosum with negative surgical margins. After four weeks of antibiotic therapy, staging evaluation reveals bilateral bulky fixed, inguinal adenopathy and bilateral pelvic adenopathy. The next step is:
- A. pelvic lymph node biopsy.
 - B. sentinel inguinal lymph node biopsy.
 - C. XRT to inguinal nodes.
 - D. bilateral pelvic and inguinal lymph node dissection.
 - E. neoadjuvant cisplatin, ifosfamide, and paclitaxel.
13. A 40-year-old man with spina bifida undergoes ileovesicostomy and bladder neck closure with omental flap interposition for severe incontinence. Three months later he develops recurrent incontinence from a vesicourethral fistula. The next step is:
- A. tube vesicostomy.
 - B. permanent nephrostomy tubes.
 - C. repeat bladder neck closure with omental interposition.
 - D. repeat bladder neck closure with rectus flap interposition.
 - E. ileal conduit.
14. Radiation exposure from a single abdominal CT scan is:
- A. on average 50 times greater than that from an anterior-posterior abdominal x-ray.
 - B. is less harmful to the digestive organs compared to the brain.
 - C. results in less cancer risk in younger patients.
 - D. increased with automatic exposure-control option.
 - E. the result of non-ionizing radiation.
15. A 30-year-old man is diagnosed with stage 3 NSGCT. He undergoes radical orchiectomy and four cycles of BEP chemotherapy. His tumor markers have normalized. However, he has a 10 cm retroperitoneal mass and three 1 cm pulmonary masses (50% size reduction after chemotherapy). After his RPLND, the next step is:
- A. observation with serial imaging.
 - B. PET scan with resection of lung masses if positive.
 - C. resection of lung masses.
 - D. resection of lung masses if retroperitoneum has active tumor.
 - E. resection of lung masses if retroperitoneum has teratoma.

16. A 53-year-old diabetic man sustains a minor proximal crural perforation during primary implantation of a three-piece inflatable penile prosthesis via a penoscrotal approach. The best management is:
- A. abort the procedure.
 - B. secure exit tubing of the ipsilateral cylinder.
 - C. extend corporotomy for primary repair.
 - D. place a malleable implant.
 - E. direct closure via perineal approach.
17. A 43-year-old man desires a biological child with his 38-year-old wife. Both testes are 5 cm in longitudinal axis and firm on physical examination. Two semen analyses show azoospermia with volumes of 2.1 and 2.3 ml. FSH is 2.8 IU/l. The next step is:
- A. adoption.
 - B. TRUS.
 - C. evaluation of the wife.
 - D. testicular sperm extraction with ICSI.
 - E. microsurgical scrotal ductal reconstruction.
18. A 66-year-old man undergoes a radical nephrectomy with adrenalectomy for an 8 cm upper pole RCC within the kidney. There is a focus of non-contiguous, metastatic RCC in the adrenal gland. No lymph nodes were removed. According to the 2010 TNM AJCC classification, pathologic stage is:
- A. T1bN0Mx.
 - B. T1bNxM1.
 - C. T2aNxM0.
 - D. T2aNxM1.
 - E. T4NxM0.
19. The finding most suggestive of renal artery stenosis on duplex ultrasonography is:
- A. decreased diastolic flow.
 - B. turbulent systolic flow.
 - C. increased peak systolic velocity.
 - D. renal aortic ratio < 3.5.
 - E. resistive index < 0.8.
20. A 28-year-old man with Kallmann syndrome is treated with exogenous testosterone. He desires a biological child. Semen analysis reveals a volume of 2.2 ml and azoospermia. The next step is:
- A. post-ejaculate urinalysis.
 - B. assay testosterone, LH and FSH.
 - C. administer GnRH.
 - D. administer hCG and recombinant FSH.
 - E. testicular sperm extraction for IVF.

21. A healthy 66-year-old woman has a loopogram as shown seven years following cystectomy and ileal conduit for bladder cancer. CT scan demonstrates bilateral hydronephrosis and no evidence of recurrent disease. Chest x-ray and urine cytology are normal. Serum creatinine is 1.8 mg/dl. A renogram is also shown. The next step is:
- A. looposcopy.
 - B. bilateral percutaneous nephrostomy.
 - C. stomal revision.
 - D. revision of left ureteroileal anastomosis.
 - E. left nephroureterectomy.

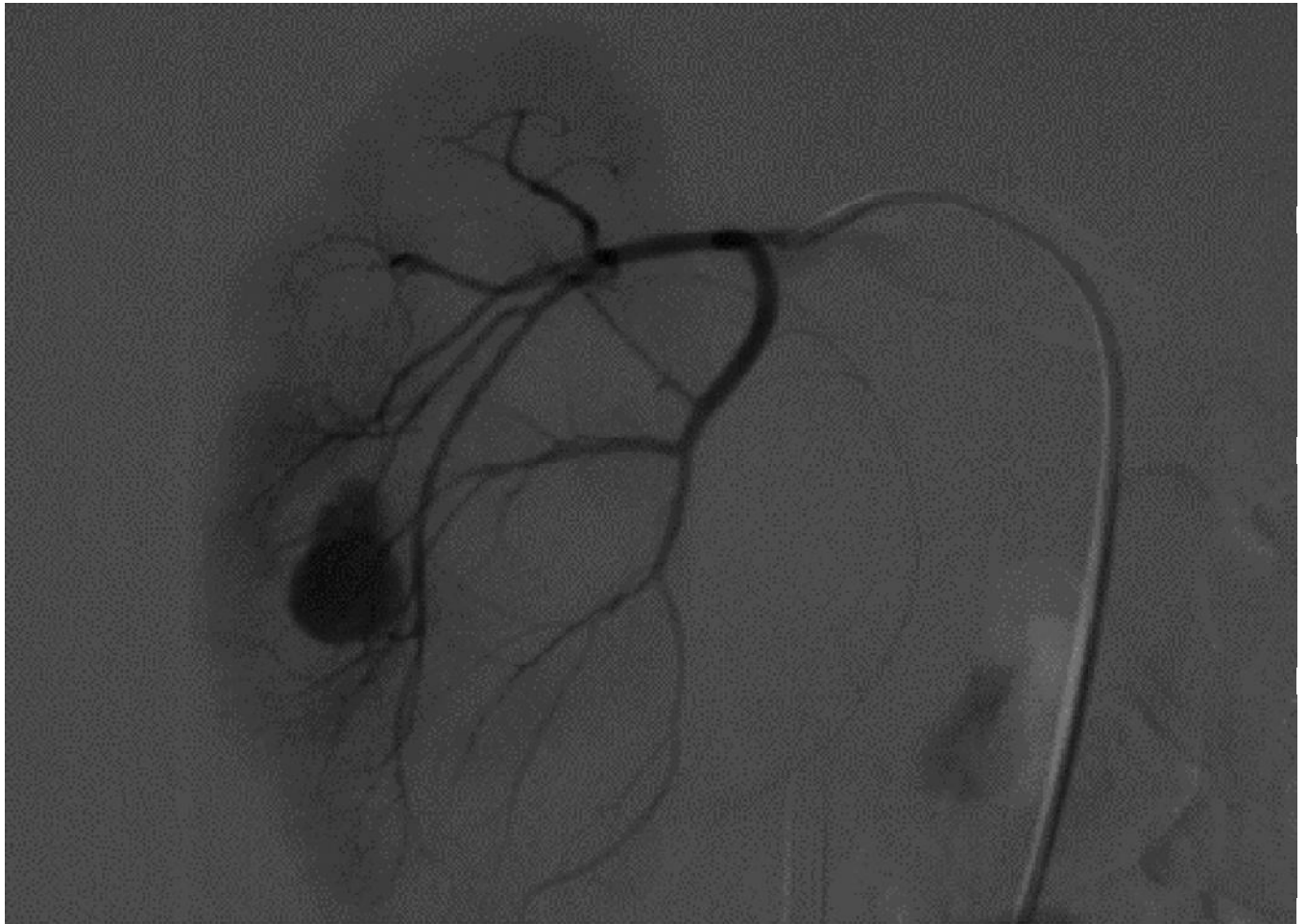




22. A 64-year-old man had a TURP six months ago and has an AUA Symptom Score of 5. He has persistent gross hematuria requiring cystoscopy and clot evacuation. Friable prostatic tissue was noted during cystoscopy. He does not wish to undergo further surgical treatment. The next step is:
- A. tamsulosin.
 - B. finasteride.
 - C. tamsulosin and finasteride.
 - D. bicalutamide.
 - E. antibiotics for one month.
23. A 56-year-old man has low libido and a normal physical exam. Morning serum testosterone is 365 ng/dl and prolactin is 48 ng/ml (normal < 20 ng/ml). The next step is:
- A. repeat prolactin assay.
 - B. serum LH assay.
 - C. pituitary MRI scan.
 - D. testosterone replacement.
 - E. bromocriptine.
24. The neurovascular bundles on the prostate travel between the following two layers of fascia:
- A. levator and prostatic.
 - B. Denonvilliers' and levator.
 - C. Denonvilliers' and prostatic.
 - D. lateral pelvic and prostatic.
 - E. lateral pelvic and levator.
25. A 71-year-old woman has difficulty voiding two hours following injection of a transurethral bulking agent. Residual urine volume is 400 ml. The next step is:
- A. observation.
 - B. alpha-blockers.
 - C. CIC.
 - D. indwelling urethral catheter.
 - E. suprapubic cystostomy.
26. A 27-year-old woman in the seventh week of pregnancy has right flank pain. Ultrasonography demonstrates a 5 mm calculus at the right UPJ. Urine culture is negative. The next step is:
- A. hydration and analgesics.
 - B. stone protocol CT scan.
 - C. ureteral stent.
 - D. percutaneous nephrostomy.
 - E. SWL.

27. A 25-year-old man has a solid testes mass. His tumor markers are negative. He has an 8 cm retroperitoneal mass and multiple 1-2 cm. pulmonary metastases. His radical orchiectomy reveals pure seminoma. After chemotherapy his retroperitoneal mass is 2.8 cm and his pulmonary masses have resolved. PET/CT reveals no enhancement of his retroperitoneal mass. The next step is:
- A. observation.
 - B. percutaneous biopsy of retroperitoneal mass.
 - C. resection of retroperitoneal mass.
 - D. bilateral RPLND.
 - E. salvage chemotherapy.
28. Normal bladder compliance during physiologic filling is primarily due to:
- A. autonomic nerve activity.
 - B. circulating hormones.
 - C. cholinergic receptor activity.
 - D. local secretion of nitric oxide.
 - E. bladder wall viscoelasticity.
29. A 32-year-old man has azoospermia. Y chromosomal microdeletion assay reveals azoospermia factor b (AZFb) and azoospermia factor c (AZFc) deletions. The next step is:
- A. adoption.
 - B. clomiphene citrate.
 - C. recombinant FSH.
 - D. testis biopsy.
 - E. microsurgical testicular sperm extraction.
30. A 71-year-old man previously treated for CIS of the bladder has a positive fluorescence in-situ hybridization (FISH) urine test. Cytology, CT urogram, and cystoscopy are normal. The next step is:
- A. observation.
 - B. repeat FISH test.
 - C. random bladder biopsies.
 - D. bilateral upper tract cytology.
 - E. bilateral ureteroscopy.
31. A 58-year-old man has frequency and bothersome nocturia with an AUA Symptom Score of 16. History and physical exam are normal, Urinalysis is negative. The next step is:
- A. frequency-volume chart.
 - B. serum creatinine.
 - C. uroflowmetry.
 - D. cystoscopy.
 - E. pressure-flow study.

32. A 52-year-old man requires six units of packed red blood cells over a 48-hour period five days after a percutaneous nephrolithotomy. He remains hypotensive at 85/50 mmHg. Imaging study is shown. The next step is:
- A. emergent exploration and repair of kidney.
 - B. selective arterial embolization.
 - C. bedrest, blood transfusion, and close monitoring.
 - D. insertion of a large-bore percutaneous tamponade catheter in nephrostomy tract.
 - E. insertion of an indwelling ureteral stent and urethral catheter decompression.



33. A 40-year-old newly-diagnosed HIV positive man has a 2.0 cm. painless red nodule on his glans penis. A biopsy confirms Kaposi's sarcoma. The next step is:
- A. initiate highly active antiretroviral therapy (HAART).
 - B. systemic chemotherapy.
 - C. laser ablation.
 - D. excise the lesion.
 - E. partial penectomy.
34. A 78-year-old malnourished woman with a history of prior pelvic radiation for cervical cancer undergoes a radical cystectomy and ileal loop diversion with bilateral ureteral stents for urothelial cancer. At the time of surgery, the bowel shows signs of radiation changes. Four days post-operatively, her urine output decreases with a marked increase in output from her abdominal drain. The next step is:
- A. parenteral hyperalimentation.
 - B. placement of a catheter into the ileal stoma.
 - C. bilateral percutaneous nephrostomy tube placement.
 - D. revision of the ureteroileal anastomoses.
 - E. excision of the ileal loop and replacement with a transverse colon conduit.
35. During ureteroscopic lithotripsy of an impacted 8 mm calcium oxalate stone in the proximal ureter, the ureter is cleared, but a 3 mm fragment is detected on fluoroscopy 1 cm lateral to the ureter. The next step is:
- A. observation.
 - B. ureteral stent.
 - C. basket extraction.
 - D. percutaneous nephrostomy.
 - E. retroperinoscopy.
36. A man with castrate-resistant prostate cancer and bone metastases is on leuprolide acetate injections and intravenous zoledronic acid injections. He is asymptomatic. Zoledronic acid injections must be stopped if the patient develops:
- A. fever.
 - B. fatigue.
 - C. a tooth abscess.
 - D. a pathologic fracture.
 - E. severe osteoporosis.
37. In the management of advanced urologic malignancies, stimulation of T cells by dendritic cells:
- A. is restricted to the Class I MHC (major histocompatibility complex).
 - B. causes T cell differentiation into plasma cells.
 - C. is suppressed by TNF (tumor necrosis factor).
 - D. is augmented by blockade of the T cell receptor.
 - E. produces interleukins.

38. A 38-year-old woman has intermittent right flank pain. CT scan shows delayed filling of a right upper pole anterior calyceal diverticulum containing an 8 mm stone. The best treatment is:
- A. observation.
 - B. SWL.
 - C. ureteroscopy, incision of the diverticular neck and laser lithotripsy.
 - D. percutaneous nephrostolithotomy and dilation of the infundibular neck.
 - E. laparoscopic ablation of calyceal diverticulum and stone removal.
39. In a patient with muscle invasive urothelial carcinoma, the pathologic characteristic that predicts a poor response to neoadjuvant chemotherapy is:
- A. squamous differentiation.
 - B. lymphovascular invasion.
 - C. micropapillary variant.
 - D. p53 mutation.
 - E. small cell component.
40. A 62-year-old woman with multiple sclerosis has persistent urinary urgency and frequency. Pressure flow urodynamics reveal detrusor overactivity during bladder filling that reproduces her symptoms as well as increased pelvic floor EMG activity during voiding. An MRI scan will most likely reveal evidence of demyelination:
- A. of the cerebral cortex.
 - B. of the cerebellum.
 - C. between the pons and sacral spinal cord.
 - D. between the conus medullaris and the cauda equina.
 - E. between the sacral spinal cord and the bladder.
41. A 28-year-old woman awaiting a liver transplant because of primary biliary cirrhosis is symptomatic from a 9 mm proximal ureteral stone. Management should be:
- A. observation and hydration.
 - B. ureteral stent.
 - C. SWL.
 - D. stent placement and SWL.
 - E. ureteroscopic laser lithotripsy.
42. A six-year-old girl undergoes bilateral ureteral reimplantation. On the first post-operative day, she has severe bladder spasms refractory to parenteral opioids and oral antimuscarinic agents. Her urine is clear, and the creatinine is 0.4 mg/dl. The next step is:
- A. oral alpha blocker.
 - B. oral benzodiazepine.
 - C. rectal acetaminophen.
 - D. I.V. ketorolac.
 - E. caudal block.

43. A 26-year-old woman has a 2 cm, circumferentially calcified saccular aneurysm on renal arteriography. Her blood pressure is 126/82 mm Hg and her creatinine is 1.1 mg/dl. She is newly married and considering pregnancy. The next step is:
- A. observation.
 - B. serial imaging.
 - C. lisinopril.
 - D. endovascular stent.
 - E. surgical repair.
44. A 35-year-old man with uric acid calculi has a nighttime urinary pH of 5.5, despite potassium citrate 40 mEq TID. The next step is adding:
- A. allopurinol.
 - B. acetazolamide.
 - C. ascorbic acid.
 - D. sodium citrate.
 - E. hydrochlorothiazide.
45. A five-year-old boy has developed frequent daytime urination, voiding at least every 30 minutes. He has no nocturia. Since toilet training at age two, he has been continent day and night. His urinalysis is normal. The most appropriate management is:
- A. reassurance.
 - B. VCUG.
 - C. antimuscarinics.
 - D. glucose tolerance test.
 - E. cystoscopy.
46. A 38-year-old woman develops monthly cyclical episodes of hematuria and menouria one year following Caesarean section. She does not desire more children. CT urogram demonstrates contrast in the bladder and uterine cavity; there is no hydronephrosis. The best treatment is:
- A. cystoscopy, fulguration and catheter drainage.
 - B. LH-RH agonist.
 - C. transvaginal repair with Martius flap.
 - D. transvaginal repair with omental flap.
 - E. transabdominal repair with hysterectomy.
47. Condyloma lata are associated with:
- A. cervical carcinoma.
 - B. gonococcal urethritis.
 - C. herpes simplex virus.
 - D. secondary syphilis.
 - E. AIDS-related complex.

48. A seven-year-old boy with a seizure disorder is managed with a ketogenic diet and topiramate, has one episode of painless gross hematuria. Renal ultrasound demonstrates 3 mm stones in the lower pole of both kidneys without hydronephrosis. The next step is:
- A. consult neurologist for alternative seizure treatment.
 - B. urinary alkalization.
 - C. oral penicillamine.
 - D. SWL.
 - E. ureteroscopic laser lithotripsy.
49. While performing a videourodynamic study in a patient with neurogenic bladder, the patient develops a severe headache. The neurological condition most likely to be associated with this event is:
- A. hemorrhagic stroke in globus pallidus.
 - B. conus medullaris injury.
 - C. spinal cord infarct at T4.
 - D. astrocytoma displacing the reticulospinal tract at T8.
 - E. multiple sclerosis.
50. A 55-year-old diabetic woman has new onset pneumaturia. The next step is:
- A. pelvic CT scan.
 - B. cystoscopy.
 - C. urine culture.
 - D. cystogram.
 - E. barium enema.
51. In 46 XX female patients with CAH, the clitoral nerves at the mid-portion of the enlarged phallic shaft are found:
- A. ventrally.
 - B. dorsally.
 - C. laterally.
 - D. between the urethra and vagina.
 - E. between the shafts of the corpora cavernosa.
52. A 57-year-old woman reports a vaginal bulge ten years after hysterectomy. On examination, she is found to have anterior prolapse, with the most distal point noted at her hymenal ring. Her vault and posterior wall show no prolapse. The POP-Q points consistent with her exam are:
- A. Aa -1, C 0, Ap -3, stage 1.
 - B. Aa -1, C 0, Ap -1, stage 1.
 - C. Aa 0, C -7, Ap -3, stage 2.
 - D. Aa 0, C -7, Ap -1, stage 2.
 - E. Aa +1, C +2, Ap -3, stage 3.

53. A 26-year-old man has progressive left flank pain 17 years after an open pyeloplasty. Diuretic renography reveals 28% function from his left kidney with delayed renal pelvic drainage ($T_{1/2} = 40$ minutes). Retrograde ureterogram shows a 1 cm narrowing at the UPJ. The best treatment is:
- A. balloon dilation.
 - B. endopyelotomy.
 - C. nephrectomy.
 - D. pyeloplasty.
 - E. ureterocalycostomy.
54. A six-year-old boy has the sudden onset of gross hematuria, urgency, and frequency. Urinalysis shows 5-10 WBC/hpf and gross blood. Urine culture is negative. Ultrasound shows diffuse bladder wall thickening but no hydronephrosis or renal mass. The next step is:
- A. observation.
 - B. antibiotics.
 - C. VCUG.
 - D. non contrast CT scan.
 - E. cystoscopy.
55. A 45-year-old obese man with untreated sleep apnea develops nocturnal enuresis. He has no daytime incontinence. Physical examination is unremarkable except for mild lower extremity edema. Urinalysis is negative, and his PVR is 30 ml. The most likely etiology of the enuresis is:
- A. decreased secretion of ADH.
 - B. increased secretion of atrial natriuretic peptide.
 - C. detrusor overactivity.
 - D. mobilization of lower extremity edema.
 - E. hypercarbia induced drowsiness.
56. A 54-year-old man develops new onset of renal transplant hydronephrosis secondary to a 2 cm proximal ureteral stricture. Ultrasound reveals normal bilateral atrophic kidneys to be in situ. The next step is:
- A. double-J stent placement.
 - B. chronic nephrostomy drainage.
 - C. antegrade ureteral balloon dilation.
 - D. pyeloureterostomy to native ureter.
 - E. pyelovesicostomy.

57. A 30-year-old man on CIC develops urinary incontinence three years after a spinal cord injury. Urodynamic testing demonstrates detrusor areflexia, and a detrusor LPP of 60 cm H₂O at 200 ml. The next step is:
- A. tamsulosin.
 - B. ephedrine.
 - C. bethanechol.
 - D. oxybutynin.
 - E. dantrolene.
58. A 37-year-old woman with a suspected urinary fistula undergoes an in-office double dye test. There is orange staining of the upper gauze pad. The middle gauze pad is dry, and the lower gauze pad is slightly stained blue. The most likely diagnosis is:
- A. ureterovaginal fistula.
 - B. vesicovaginal fistula.
 - C. ureterovaginal and vesicovaginal fistula.
 - D. ureterovaginal fistula and urethral leakage.
 - E. vesicovaginal fistula and urethral leakage.
59. The need for operative revision of stomal stenosis in a continent, catheterizable channel is reduced by:
- A. increasing size of catheter.
 - B. increasing frequency of catheterization.
 - C. steroid injection of stoma.
 - D. use of a pre-lubricated catheter.
 - E. leaving a catheter through superficial portion of stoma nightly.
60. A 22-year-old man sustains a severe burn of his genitalia. There is marked bullous edema and eschar formation of the entire penis and much of the scrotum. He has had a catheter in his urethra for three days to monitor urine output. The next step is:
- A. radical eschar debridement.
 - B. split thickness skin grafts.
 - C. hyperbaric oxygen therapy.
 - D. remove urethral catheter and insert suprapubic tube.
 - E. observe for wound granulation.
61. A 32-year-old man underwent a deceased donor kidney transplant six months ago with a donor kidney with two renal arteries. The lower pole renal artery was anastomosed separately to the distal external iliac artery. He now has a creatinine of 2.1 mg/dl and ultrasound shows hydroureteronephrosis of the transplanted kidney. The next step is:
- A. CT scan.
 - B. diuretic renogram.
 - C. placement of a indwelling urethral catheter.
 - D. cystoscopy and retrograde stent insertion.
 - E. percutaneous nephrostomy.

62. A 16 cm intussuscepted ureteral segment is noted in the bladder after a difficult ureteroscopic stone extraction. The next step is:
- A. nephrectomy.
 - B. transuretero-ureterostomy.
 - C. ureteral reimplantation.
 - D. percutaneous nephrostomy drainage.
 - E. primary uretero-ureterostomy.
63. Vesicoureteral reflux is suspected on antenatal ultrasound when:
- A. there is upper pole hydroureteronephrosis.
 - B. the bladder is noted to be full on serial ultrasounds.
 - C. there is bladder wall thickening.
 - D. the degree of hydronephrosis varies with serial ultrasounds.
 - E. there is a two-vessel umbilical cord.
64. The metabolism of sildenafil may be inhibited by:
- A. a fatty meal.
 - B. rifampin.
 - C. ritonavir.
 - D. warfarin.
 - E. doxazosin.
65. A 32-year-old man with infertility has an ejaculate volume of 3 ml, sperm count of 13 million/ml, 50% motility, and an elevated serum FSH. Physical examination reveals bilaterally small testes, normal vasa, and no evidence of a varicocele. His 28-year-old wife has a normal evaluation. The most appropriate next step is:
- A. intrauterine insemination.
 - B. testicular biopsy.
 - C. in vitro fertilization.
 - D. clomiphene citrate.
 - E. antisperm antibody testing.
66. An ectopic ureteral insertion into the vagina is the result of the ureteral bud arising or interacting:
- A. proximally on the mesonephric duct.
 - B. distally on the mesonephric duct.
 - C. on the common excretory duct.
 - D. with ectopic metanephric blastema.
 - E. on the paramesonephric duct.

67. A pelvic examination of a 75-year-old woman two years after prior midurethral synthetic sling reveals extrusion of a small amount of mesh along her anterior vaginal wall. She is continent and denies any other urinary or vaginal complaints. She is not sexually active. Urinalysis is normal. The next step is:
- A. observation.
 - B. removal of extruded mesh.
 - C. removal of entire midurethral sling.
 - D. oral estrogen hormone replacement.
 - E. removal of exposed mesh and simultaneous sling replacement.
68. A 39-year-old woman has dysuria and frequency. Urinalysis shows 30 WBC/hpf and a few cocci. The midstream urine culture shows 10^3 coagulase negative Staphylococci/ml. The next step is:
- A. phenazopyridine.
 - B. repeat midstream culture.
 - C. urine culture for mycobacteria.
 - D. antibiotic therapy.
 - E. catheterized urine culture.
69. A one-year-old boy with prune belly syndrome has chronic renal insufficiency. He undergoes abdominoplasty and bilateral orchidopexy and develops oliguria post operatively that does not respond to fluid boluses. Serum electrolytes reveal elevated BUN and creatinine, metabolic acidosis, and hyperkalemia. Sodium polystyrene enemas are given and I.V. sodium bicarbonate is administered. The patient develops abdominal cramping and muscle spasms. This is most likely due to:
- A. hypokalemia.
 - B. hypophosphatemia.
 - C. hypermagnesemia.
 - D. hypocalcemia.
 - E. hyponatremia.
70. A 24-year-old man had a complete T4 spinal cord injury three weeks ago. He is wearing a condom catheter for continuous leakage and examination is significant for suprapubic fullness as well as flaccid muscle paralysis and absent somatic reflexes below the level of injury. The next step is:
- A. suprapubic catheter.
 - B. suprapubic catheter and urodynamics.
 - C. CIC.
 - D. CIC and urodynamics.
 - E. CIC, urodynamics and renal ultrasound.

71. During the course of a radical cystectomy, a rectal injury is primarily repaired. Three days postoperatively, the patient becomes septic. Physical examination reveals a tender surgical wound. The adjacent skin is edematous and has a bronze discoloration. Gram stain of the wound aspirate reveals gram-positive, club-shaped organisms. The next steps are surgical drainage, I.V. clindamycin and:
- A. penicillin.
 - B. vancomycin.
 - C. fluconazole.
 - D. cefazolin.
 - E. tetracycline.
72. A 64-year-old man undergoes a TURP using glycine irrigation. Vital signs are stable throughout the procedure but at the end of the procedure he is confused and nauseated. The most likely problem is:
- A. sepsis.
 - B. hyperglycemia.
 - C. dilutional hyponatremia.
 - D. hemolysis.
 - E. hypovolemia.
73. According to the 2009 AUA Guidelines on Surgical Management of Female Stress Urinary Incontinence (SUI), evaluation of the index patient with SUI should include a focused history, physical examination, urinalysis, PVR and:
- A. pad test.
 - B. objective demonstration of SUI.
 - C. cystoscopy.
 - D. urodynamics.
 - E. urodynamics and cystoscopy.
74. An early manifestation of septic shock is:
- A. bradycardia.
 - B. respiratory alkalosis.
 - C. high output renal failure.
 - D. decreased cardiac output.
 - E. decrease in plasma norepinephrine.

75. A 58-year-old diabetic man with lupus recently discontinued a two week course of ibuprofen for a shoulder injury. Serum creatinine is elevated from a baseline of 0.9 to 2.6 mg/dl. Urinalysis reveals moderate proteinuria and WBC casts without eosinophiluria. Renal ultrasound demonstrates no hydronephrosis. The next step is:
- A. observation.
 - B. urine culture and antibiotics.
 - C. prednisone.
 - D. cyclosporine.
 - E. percutaneous renal biopsy.
76. An 86-year-old man with nocturia times three, daytime frequency, urinary urgency, and occasional incontinence is treated with tolterodine. His incontinence worsens. Urinalysis is normal. The next step is:
- A. urine culture.
 - B. PVR.
 - C. uroflowmetry.
 - D. videourodynamics.
 - E. cystoscopy.
77. A 75-year-old woman with lower limb phlebitis has marked bilateral hydronephrosis on a CT scan performed to screen for an intra-abdominal malignancy. She has had marked uterine prolapse (procidentia) for several years. Stress incontinence of urine is controlled by wearing a pad changed once daily. Residual urine is 100 ml. Serum creatinine is 3.2 mg/dl. Urine culture grows *Klebsiella* 10^5 col/ml. The next step in management should be antibiotic therapy and:
- A. hysterectomy.
 - B. vaginal pessary.
 - C. anterior vaginal repair.
 - D. anterior vesicourethropexy.
 - E. bilateral ureteral stents.
78. A five-year-old boy has had two prior failed attempts to repair his penoscrotal hypospadias. His urethral meatus is widely patent and is located at the penoscrotal junction. The distal urethral plate is fibrotic and scarred, and is associated with a 15 degree ventral curvature. He has minimal excess preputial and penile shaft skin. The next step is:
- A. incised plate urethroplasty.
 - B. buccal mucosa onlay graft and corporal body grafting.
 - C. buccal mucosa onlay graft and dorsal corporal plication.
 - D. resection of urethral plate and tubed buccal mucosa graft urethroplasty.
 - E. resection of urethral plate and first stage buccal mucosa graft to urethral bed.

79. A 34-year-old woman with multiple sclerosis continues to have significant urinary incontinence despite maximal antimuscarinics. Two weeks after intradetrusor injection of 200 units of onabotulinumtoxinA, she complains of worsening frequency, urgency and urinary incontinence. The next step is:
- A. PVR.
 - B. cystoscopy.
 - C. urodynamics.
 - D. empiric antibiotic therapy.
 - E. reinject 100 units of onabotulinumtoxinA.
80. Aldosterone production is primarily:
- A. a function of the zona fasciculata.
 - B. increased by atrial natriuretic factor.
 - C. decreased in renal hypoperfusion.
 - D. mediated by angiotensin II.
 - E. increased with sodium loading.
81. A 14-year-old boy has a painless mass above the right testis. Radical orchiectomy is performed. Pathology reveals a completely resected paratesticular rhabdomyosarcoma. His abdominal CT scan is normal. The next step is:
- A. repeat CT scan in three months.
 - B. adjuvant chemotherapy with doxorubicin and alkylating agents.
 - C. retroperitoneal radiation.
 - D. ipsilateral RPLND.
 - E. bilateral RPLND.
82. A 46-year-old-man has a sustained erection for 72 hours. His erection has persisted despite irrigation with dilute phenylephrine solution through multiple glanular punctures and a subsequent corporal-cavernosal shunt. One day later, he continues to have a rigid penis. The best treatment is:
- A. oral terbutaline.
 - B. oral bicalutamide.
 - C. corporal-glanular shunt.
 - D. bilateral T-shunt.
 - E. immediate prosthesis implantation.

83. A 68-year-old woman has nocturia x3, persistent suprapubic pain, urgency and daytime frequency after her third BCG instillation for recurrent stage Ta bladder cancer. A urinalysis reveals 5-10 RBC and 10-20 WBC/hpf. A urine culture is negative. The next step is:
- A. space remaining treatments two weeks apart.
 - B. ciprofloxacin.
 - C. decrease weekly intravesical dose of BCG by 50 percent.
 - D. isoniazid therapy with BCG treatments.
 - E. oxybutynin.
84. Prenatal ultrasound in a 22-week male fetus shows bilateral hydroureteronephrosis. The most important parameter(s) predictive of postnatal renal outcome is(are):
- A. the anterior-posterior diameter of the renal pelvis.
 - B. renal parenchymal echogenicity.
 - C. the degree of parenchymal thinning.
 - D. the presence of a thick walled bladder and a dilated proximal urethra.
 - E. the presence of oligohydramnios and renal cortical cysts.
85. A man with a BMI of 35 (normal 18.5-24.9) complains of left flank and hip pain after undergoing laparoscopic right nephrectomy in the lateral position. The surgery was challenging and required use of the kidney rest for an extended period of time. Postoperatively, he appears to have brownish-red urine. Urine dip stick is 3+ for blood but no RBC os seen microscopically. The next step is:
- A. observation.
 - B. nephrology consultation.
 - C. I.V. hydration and alkalinization.
 - D. radiographic imaging of the hip.
 - E. initiation of patient-controlled anesthesia.
86. A 50-year-old man has a large right renal mass with tumor thrombus extending into the atrium. Under hypothermia and circulatory arrest, he undergoes nephrectomy with removal of the tumor thrombus. The most frequent significant complication is:
- A. hepatic dysfunction.
 - B. pulmonary air embolus.
 - C. central nervous system deficit.
 - D. coagulopathy and hemorrhage.
 - E. tumor emboli.

87. A patient taking chronic thiazide diuretics undergoes nephrectomy. After surgery, serum K is 3.0 mEq/l despite adequate fluid replacement. She is normotensive and alert. Attempts to restore her serum K level are hampered by:
- A. adrenal insufficiency.
 - B. glomerular hyperfiltration.
 - C. normal magnesium levels.
 - D. intracellular shifting of potassium.
 - E. tubular dysfunction.
88. Patients with von-Hippel Lindau disease most frequently have:
- A. renal angiomyolipoma.
 - B. cafe-au-lait spots.
 - C. glioblastomas.
 - D. thyroid carcinoma.
 - E. retinal angiomas.
89. An 11-year-old boy with a history of a PUV develops hypertension and incontinence. Over the past six months, his creatinine has increased from 1.2 to 2.8 mg/dl and his BUN from 28 to 45 mg/dl. Ultrasound shows increased hydronephrosis and a large PVR. The next step is:
- A. initiate transplant evaluation.
 - B. urethral catheter drainage.
 - C. alpha-blocker therapy.
 - D. antimuscarinics.
 - E. desmopressin.
90. In the management of advanced bladder cancer the substitution of carboplatin for cisplatin in a multidrug regimen has been shown to:
- A. not affect outcome.
 - B. increase renal toxicity.
 - C. improve survival.
 - D. decrease response rate.
 - E. increase duration of therapy.
91. A 52-year-old man with renal insufficiency has decreased libido and progressive erectile dysfunction. He has a spot serum prolactin level of 220 ng/ml (normal 5-20 ng/ml). The next step is:
- A. measure serum testosterone.
 - B. measure FSH and LH.
 - C. brain CT.
 - D. nephrology consult.
 - E. ophthalmology consult.

92. A 75-year-old man has severe bleeding from radiation cystitis requiring transfusion. Cystogram reveals no reflux. Previous therapeutic measures have failed including fulguration, clot evacuation, and irrigations with silver nitrate and 1% alum. The next step in management is:
- A. ileal loop urinary diversion.
 - B. instillation of 10% formalin.
 - C. instillation of 5% formaldehyde.
 - D. instillation of 5% formalin.
 - E. internal iliac artery embolization.
93. A 56-year-old woman with recurrent, symptomatic stress urinary incontinence desires treatment. She had a prior midurethral synthetic sling ten years prior that worked well until recently. Examination reveals loss of urine with cough and minimal urethral hypermobility. Urinalysis is normal. The next best step is:
- A. urethral bulking agent.
 - B. transobturator transvaginal tape sling.
 - C. retropubic midurethral sling.
 - D. retropubic bladder neck suspension.
 - E. artificial urinary sphincter.
94. A ten-year-old girl with a history of bilateral high grade VUR was treated with bilateral cross-trigonal ureteral reimplantation surgery at two years of age. She is evaluated for persistent gross hematuria following treatment of a UTI. Cystoscopy and bladder mass resection demonstrates nephrogenic adenomas. The next step is:
- A. reassurance.
 - B. antibiotic suppression.
 - C. intravesical BCG.
 - D. laser ablation.
 - E. partial cystectomy.
95. A 43-year-old paraplegic man with a neurogenic bladder has gross hematuria. A cystogram shows bilateral grade 2 VUR and a 1 cm papillary filling defect in the mid-right ureter. Cystoscopy shows patulous ureteral orifices, but no other abnormalities. Complete ureteroscopic resection of the tumor reveals a low grade non-invasive urothelial carcinoma. The serum creatinine is 1.0 mg/dl. The best management is:
- A. surveillance with ureteroscopy.
 - B. nephroureterectomy.
 - C. partial ureterectomy.
 - D. ureterectomy and ileal ureter.
 - E. intravesical BCG.

96. An eight-month-old uncircumcised boy is treated for a febrile UTI. Ultrasound shows a right multicystic dysplastic kidney and a normal left kidney. VCUG shows left grade 3 VUR. DMSA scan shows non-function of the right kidney and a left upper pole cortical defect. The next step is prophylactic antibiotics and:
- A. observation.
 - B. circumcision.
 - C. left antireflux surgery.
 - D. right nephrectomy.
 - E. left antireflux surgery and right nephrectomy.
97. A 23-year-old man had a successful kidney transplant two weeks ago. He has significant pain below his incision without any leg weakness. The most likely diagnosis is:
- A. postoperative pain.
 - B. addictive behavior.
 - C. lateral cutaneous nerve injury.
 - D. genitofemoral nerve entrapment.
 - E. femoral nerve damage.
98. A 55-year-old woman undergoes right radical nephrectomy and inferior vena cava thrombectomy for RCC. There is no evidence of metastatic disease. The prognostic factor most predictive of cancer-free survival is:
- A. tumor stage.
 - B. tumor grade.
 - C. size of caval thrombus.
 - D. tumor size.
 - E. mutant p53 suppressor gene.
99. A newborn boy with bilateral hydronephrosis has PUV, left sided grade 5 VUR, and a large bladder diverticulum on VCUG. After successful resection of valves, left hydronephrosis persists. The next step is prophylactic antibiotics and:
- A. observation.
 - B. vesicostomy.
 - C. left cutaneous ureterostomy.
 - D. left anti-reflux surgery.
 - E. left nephroureterectomy and bladder diverticulectomy.
100. A 55-year-old man with metastatic RCC to the brain is confused and has one short generalized seizure. His serum sodium is 110 mEq/l. The next step is:
- A. total fluid restriction to 2 l/day.
 - B. I.V. normal saline at 1 ml/kg/hr.
 - C. I.V. hypertonic saline at 1 ml/kg/hr.
 - D. lithium 1200 mg daily.
 - E. demeclocycline 600 mg daily.

101. An eight-year-old boy was treated for lipomyelomeningocele at birth. He is on CIC every four hours and oxybutynin 5 mg BID. He develops new incontinence. The next step is:
- A. urodynamics.
 - B. MRI scan of spine.
 - C. increase CIC frequency.
 - D. increase antimuscarinics.
 - E. start imipramine.
102. A two-day-old, 4.5 kg girl has gross hematuria. A right flank mass is palpable. CBC shows thrombocytopenia. The most likely diagnosis is:
- A. renal vein thrombosis.
 - B. renal artery thrombosis.
 - C. Henoch-Schönlein purpura.
 - D. hemolytic uremic syndrome.
 - E. congenital mesoblastic nephroma.
103. A 68-year-old man with ESRD has been on dialysis for ten years. He has a malleable penile prosthesis and his caregivers notice a firm, black, necrotic lesion on his glans. He has similar lesions on his fingers and toes. The best treatment is:
- A. observation and support.
 - B. oral antibiotics for six weeks.
 - C. I.V. antibiotics for six weeks.
 - D. biopsy of lesion.
 - E. removal of prosthesis.
104. A 23-year-old man develops chylous ascites after RPLND. He is initially managed with a medium chain triglyceride diet, and for the last two weeks, with TPN. He still requires periodic paracentesis four weeks postoperatively. The next step is:
- A. continue current management.
 - B. add somatostatin.
 - C. laparoscopic ligation of the source.
 - D. open surgical ligation of the source.
 - E. peritoneovenous shunt.
105. A 37-year-old woman with a continent cutaneous urinary diversion becomes febrile and develops mental status changes and marked hepatic dysfunction. Previously, her hepatic function had been normal. In addition to prompt urinary drainage and systemic antibiotics, the next step is:
- A. lactulose.
 - B. Vitamin B12.
 - C. sodium bicarbonate.
 - D. nicotinic acid.
 - E. thiamine and folic acid.

106. Persistent or recurrent difficulty to allow vaginal entry of a penis, finger, or other object, despite the woman's desire to participate is consistent with the diagnosis of:
- A. vaginismus.
 - B. persistent sexual arousal disorder.
 - C. dyspareunia.
 - D. sexual aversion disorder.
 - E. genital arousal disorder.
107. A 59-year-old man undergoes TRUS biopsy with a PSA of 4.5 ng/ml and a normal DRE. The biopsy reveals BPH and nine months later his PSA has risen to 5 ng/ml and he undergoes a PCA3 urine test. The PCA3 score is 99 (low risk < 35). The next step is:
- A. 5-alpha reductase inhibitor.
 - B. one month of ciprofloxacin and repeat PCA3.
 - C. free to total PSA ratio.
 - D. prostate MRI.
 - E. repeat TRUS biopsy.
108. An 11-year-old boy with spina bifida is scheduled for bladder augmentation and implantation of an artificial urinary sphincter. Infection or erosion are more common if sphincter implantation is performed:
- A. prior to bladder augmentation.
 - B. following bladder augmentation.
 - C. simultaneous with augmentation.
 - D. with sigmoid enterocystoplasty.
 - E. in an area of previous bladder neck surgery.
109. The production of sex hormone binding globulin (SHBG) is increased by:
- A. hypothyroidism.
 - B. hyperthyroidism.
 - C. insulin.
 - D. nephrotic syndrome.
 - E. progestins.
110. The primary goal of bowel detubularization at the time of neobladder construction is to:
- A. recreate the shape of the native bladder.
 - B. provide more efficient neobladder emptying.
 - C. reduce lumen pressure.
 - D. reduce vesicoureteral reflux.
 - E. reduce urinary contact time.

111. Berry aneurysms of the circle of Willis are most frequently associated with:
- A. renal aneurysms.
 - B. autosomal dominant polycystic kidneys.
 - C. autosomal recessive polycystic kidneys.
 - D. horseshoe kidney.
 - E. multicystic dysplastic kidneys.
112. A 52-year-old man in good health has a three year history of dorsal penile curvature. His angulation is 80 degrees and has been stable without pain for over a year. He has good erections with sildenafil but cannot penetrate due to the curvature. The best treatment is:
- A. oral colchicine.
 - B. topical verapamil.
 - C. corporal plication.
 - D. plaque incision and graft.
 - E. modeling and placement of inflatable penile prosthesis.
113. The risk factor associated with the highest chance for developing a secondary malignancy and/or cardiovascular disease in patients treated for testis cancer is:
- A. surveillance imaging.
 - B. smoking.
 - C. BEP chemotherapy.
 - D. subdiaphragmatic and mediastinal radiation therapy.
 - E. cisplatin, vinblastine, bleomycin (PVB) chemotherapy.
114. The ductuli efferentes of the testis enter the:
- A. seminiferous tubules.
 - B. caput epididymis.
 - C. cauda epididymis.
 - D. vas deferens.
 - E. rete testis.
115. A 42-year-old man sustains a high velocity pelvic gunshot wound with no obvious ureteral injury at exploration. Two days later during a second look operation for bleeding, a minor distal ureteral contusion is identified. Intravenous indigo carmine does not reveal a urine leak. The next step is:
- A. observation.
 - B. cystoscopy and stent placement.
 - C. percutaneous nephrostomy.
 - D. ureteroneocystostomy.
 - E. debridement and ureteroureterostomy.

116. A 56-year-old woman three years after a radical cystectomy and continent cutaneous diversion has abdominal pain over the pouch and explosive leakage of urine despite regular catheterization. The next step is:
- A. placement of indwelling urinary catheter.
 - B. pouchoscopy.
 - C. urine culture and empiric antibiotic therapy.
 - D. CT pouch-o-gram.
 - E. surgical revision of the catheterizable stoma.
117. A nine-year-old girl is struck in the abdomen and right flank by an automobile. She is alert and her vital signs are stable. She has moderate guarding in her right upper quadrant and decreased bowel sounds. Her hematocrit is 33%, and she has blood-tinged urine. A CT scan demonstrates a 4 cm hepatic laceration and hematoma and a 3 cm laceration of the right kidney with minimal contrast extravasation. The next step is:
- A. observation.
 - B. cystoscopy and ureteral stent placement.
 - C. renal and hepatic arteriography.
 - D. percutaneous drain placement.
 - E. abdominal exploration.
118. A 25-year-old woman reports eight afebrile UTIs in the past year. The factor most likely to increase her risk of UTI is:
- A. tampon use.
 - B. parity.
 - C. douche use.
 - D. daily bicycle riding.
 - E. spermicide use.
119. A 45-year-old woman undergoes a left adrenalectomy for pheochromocytoma. Three months later, she still has sustained hypertension. The next step is:
- A. plasma renin activity.
 - B. plasma free metanephrine levels.
 - C. 24-hour urinary cortisol levels.
 - D. abdominal MRI scan.
 - E. MIBG scan.
120. If the inferior mesenteric artery is ligated, the artery that maintains blood supply to the rectum is:
- A. superior mesenteric.
 - B. ileocolic.
 - C. middle sacral.
 - D. external iliac.
 - E. hypogastric.

121. A 44-year-old runner experiences the gradual onset of left groin pain. Examination reveals normal genitalia and tenderness over the symphysis pubis. His urinalysis is clear. The most likely cause of his pain is:
- A. vasisitis.
 - B. femoral hernia.
 - C. pubic bone stress fracture.
 - D. osteitis pubis.
 - E. osteomyelitis of the pubis.
122. On prostate ultrasound, calcifications within the prostate known as corpora amylacea can be visualized between which zones:
- A. transitional and anterior.
 - B. central and peripheral.
 - C. transitional and peripheral.
 - D. central and transitional.
 - E. central and anterior.
123. A six-week-old boy has a large, palpable, right abdominal mass. Ultrasonography demonstrates a fluid-filled mass with multiple cystic lucencies. A renal scan shows no uptake of the right kidney and a normal left kidney. He has moderate respiratory distress and an elevated right hemidiaphragm. The most appropriate therapy is:
- A. right nephrectomy.
 - B. percutaneous aspiration of cysts.
 - C. cystoscopy and right retrograde pyelogram.
 - D. right pyeloplasty.
 - E. observation.
124. Randomized clinical trials have demonstrated decreased rates of struvite stone growth with the use of:
- A. urinary acidification.
 - B. suppressive antibiotics.
 - C. acetohydroxamic acid.
 - D. a low protein diet.
 - E. citric acid glucono-delta-lactone magnesium carbonate.
125. A 51-year-old woman develops bilateral hydronephrosis from benign uretero-enteric strictures, two years after undergoing a radical cystectomy with ileal conduit urinary diversion. The most successful treatment is:
- A. antegrade bilateral endoscopic balloon dilatation.
 - B. antegrade bilateral endoscopic laser incision.
 - C. retrograde bilateral balloon dilatation.
 - D. retrograde bilateral endoscopic laser incision.
 - E. open bilateral surgical revision.

126. An acutely ill 50-year-old man is in the emergency room. He is unable to give a history. Physical exam reveals severe dehydration. Serum Na is 125 mEq/l, and urinary Na is 8 mEq/l (> 20 mEq/l normal spot urine). The most likely cause of his hyponatremia is:
- A. vomiting.
 - B. diuretic excess.
 - C. renal disease.
 - D. congestive heart failure.
 - E. Addison's disease.
127. When performing SWL using sedation, one should anticipate a need for deeper anesthesia if the patient:
- A. is a male.
 - B. is older than 50 years.
 - C. has a stone projecting over a rib.
 - D. has never had a prior SWL.
 - E. has a ureteral calculus.
128. A 66-year-old man has a PSA of 4.1 ng/ml and is diagnosed with a Gleason sum 6 prostate cancer involving less than 5% of a single core from a 12-core biopsy. He elects active surveillance. One year later, his PSA is 4.5 ng/ml. The next step is:
- A. recheck PSA in three months.
 - B. recheck PSA in six months.
 - C. 12-core TRUS-guided prostate biopsy.
 - D. 24-core TRUS-guided saturation biopsy.
 - E. MRI scan.
129. A six-week-old boy was born at 27 weeks gestation. His postnatal course has been complicated by respiratory distress, bronchopulmonary dysplasia, and a patent ductus arteriosus. He has required long-term diuretic therapy. A KUB reveals calcifications in the mid and upper abdominal regions consistent with bilateral renal calculi. The most likely mechanism for the formation of the stones is:
- A. hypercalciuria.
 - B. hyperuricosuria.
 - C. obstructive uropathy.
 - D. Type I RTA.
 - E. Type II RTA.

130. A 25-year-old man undergoes excision and primary anastomosis for a 2 cm bulbar urethral stricture. Postoperatively the patient experiences normal erectile function, but difficulty with antegrade ejaculation. The structure most likely injured is the:
- A. bulbospongiosus.
 - B. transverse perineum.
 - C. bulbocavernosus muscle.
 - D. corpus cavernosum.
 - E. corpus spongiosum.
131. A 64-year-old woman undergoes left laparoscopic adrenalectomy for a non-functional 5.5 cm adrenal mass. Three pathologic criteria suggestive of the diagnosis of carcinoma include:
- A. a mitotic rate > 5/hpf, absence of clear cytoplasm, and sinusoidal invasion.
 - B. atypical mitoses, lack of necrosis, and venous invasion.
 - C. focused growth pattern, high nuclear grade, and most cells have clear cytoplasm.
 - D. capsular exclusion, sinusoidal exclusion, and atypical mitoses.
 - E. mitotic rate < 5/hpf, diffuse growth pattern, and capsular invasion.
132. A four-year-old boy fell from a second story window. On examination, his vital signs are stable, but he has right flank and upper quadrant abdominal tenderness and fullness. He does not have peritoneal signs. Urinalysis is normal. The next step is:
- A. observation.
 - B. abdominal paracentesis.
 - C. abdominal and renal ultrasound.
 - D. cystogram.
 - E. CT urogram.
133. A 60-year-old man who underwent left total hip replacement one year ago is about to undergo SWL of a 1 cm right renal pelvic stone. Appropriate antimicrobial prophylaxis is:
- A. none.
 - B. oral ciprofloxacin.
 - C. oral trimethoprim-sulfamethoxazole.
 - D. I.V. ceftriaxone.
 - E. I.V. vancomycin.
134. A 54-year-old man with metastatic clear cell RCC is currently receiving sunitinib. During therapy, he should have monitoring of his serum:
- A. thyroid stimulating hormone and T4.
 - B. testosterone.
 - C. cholesterol.
 - D. cortisol.
 - E. transaminases.

135. A seven-year-old girl has urgency, frequency, and daytime urinary incontinence. She is wet every day, requiring clothing changes twice daily. Physical exam and urinalysis are normal. She is placed on oxybutynin 5 mg bid and timed voiding. She returns two weeks later and reports no change in the daytime urinary incontinence. The next step is:
- A. MRI scan of the lumbosacral spine.
 - B. add imipramine.
 - C. videourodynamics.
 - D. voiding diary.
 - E. urethral dilation.
136. A 50-year-old woman has irritative, obstructive voiding symptoms, and urge incontinence. Videourodynamics demonstrates normal bladder capacity, peak flow of 6 ml/sec, peak detrusor voiding pressure of 45 cm H₂O, a silent external sphincter, and minimal opening of the bladder neck during voiding. PVR is 150 ml. Examination reveals no cystocele. Cystoscopy is normal. The next step is:
- A. antimuscarinic therapy.
 - B. biofeedback.
 - C. urethral dilation.
 - D. alpha-blocker therapy.
 - E. transurethral incision of bladder neck.
137. A 55-year-old woman underwent cystectomy and urinary diversion three years ago. Her serum electrolytes are: Na 140 mEq/l, K 3.4 mEq/l, Cl 140 mEq/l, CO₂ 15 mEq/l. Her urinary diversion is most likely a(n):
- A. ileal conduit.
 - B. jejunal conduit.
 - C. ileocolic pouch.
 - D. cutaneous ureterostomy.
 - E. ureterosigmoidostomy.
138. A 16-month-old boy is treated for dehydration. He has had no diarrhea or vomiting. He has been drinking excessively over the past several months. The serum sodium is 152 mEq/l. The urine specific gravity is 1.003 and the urine osmolality is 500 mOsm/kg. He is treated with parenteral fluids. The next step is:
- A. head CT scan.
 - B. renal ultrasound.
 - C. overnight fluid restriction.
 - D. desmopressin (DDAVP).
 - E. salt-restricted diet.

139. Food with high potential renal acid load (PRAL) includes:
- A. milk.
 - B. cheese.
 - C. yogurt.
 - D. fruit.
 - E. vegetables.
140. A 68-year-old diabetic man has a 1 cm left proximal ureteral non-invasive, high grade urothelial carcinoma. His serum creatinine is 0.9 mg/dl. Abdominal CT scan is otherwise normal. The next step is:
- A. ureteroscopic tumor ablation, stent placement, and intravesical BCG instillation.
 - B. percutaneous resection and antegrade BCG.
 - C. left partial ureterectomy.
 - D. left ureterectomy with Boari flap.
 - E. left radical nephroureterectomy.
141. A one-day-old girl with spina bifida undergoes back closure and one week later has placement of a ventriculoperitoneal shunt. Following catheter removal, she voids with a moderate residual. Credé maneuver is started. Eight hours later, she develops abdominal distension and has minimal urine output. The bladder is catheterized for 3 cc. The next step is:
- A. fluid bolus.
 - B. plain film of the abdomen.
 - C. cystogram.
 - D. abdominal/pelvic CT scan.
 - E. laparotomy.
142. Performance sports drinks may increase urinary:
- A. sodium.
 - B. citrate.
 - C. calcium.
 - D. uric acid.
 - E. oxalate.
143. A 55-year-old asymptomatic man with a serum PSA of 5.0 ng/ml has a normal DRE. TRUS is normal and prostate biopsy reveals Gleason 3+3 adenocarcinoma in two biopsy cores from the left base and two biopsy cores from the right apex. The remaining biopsies show benign prostate tissue. According to the 2010 AJCC TNM classification, the clinical T stage is:
- A. cT1b.
 - B. cT1c.
 - C. cT2a.
 - D. cT2b.
 - E. cT2c.

144. A ten-day-old boy with a transverse colostomy performed for a high imperforate anus has a serum Cl of 115 mEq/l, Na of 145 mEq/l, K of 4.5 mEq/l, and CO₂ of 17 mEq/l. The most likely explanation for these findings is:
- A. sepsis.
 - B. renal dysplasia.
 - C. severe hydronephrosis.
 - D. neurogenic bladder dysfunction.
 - E. electrolyte absorption from large bowel.
145. A 35-year-old man with azoospermia and normal genetic testing desires a biological child. Testosterone is 275 ng/dl, LH is 28 IU/l and FSH is 15 IU/l. Both testes are 3 cm in length and soft. The next step is:
- A. clomiphene citrate.
 - B. hCG.
 - C. scrotal ultrasound.
 - D. cranial MRI scan.
 - E. microsurgical testicular sperm extraction.
146. A 63-year-old woman with metastatic clear cell RCC and a poor performance status has a serum calcium of 11 mg/dl and a hemoglobin of 8 g/dl. The most appropriate treatment is:
- A. interferon.
 - B. bevacizumab.
 - C. sunitinib.
 - D. sorafenib.
 - E. temsirolimus.
147. A vascular pedicle of the omentum is preferentially based on which artery when using an omental flap for repair of a vesicovaginal fistula:
- A. right gastroepiploic.
 - B. left gastroepiploic.
 - C. superior mesenteric.
 - D. gastric.
 - E. splenic.
148. The indication for sperm viability testing is:
- A. sperm density < 5 million sperm per ml.
 - B. sperm motility < 5%.
 - C. Kallmann syndrome.
 - D. Klinefelter syndrome.
 - E. presence of anti-sperm antibodies.

149. A 76-year-old asymptomatic man has castrate-resistant prostate cancer. Bone scan is normal but CT scan of the pelvis demonstrates two new, enlarged pelvic lymph nodes. The next treatment is:
- A. sunitinib.
 - B. zoledronic acid.
 - C. denosumab.
 - D. cabazitaxel.
 - E. sipuleucel-T.
150. A 12-year-old boy has severe dysuria and hematuria. Ultrasound shows a bladder mass and mild right hydronephrosis. Urine culture is sterile. Cystoscopy shows a diffuse, erythematous, bullous mass at the bladder base. Biopsy shows intense inflammation, granulomatous reactions and an eosinophilic infiltrate. The best management is:
- A. laser fulguration.
 - B. corticosteroids.
 - C. long-term antibiotics.
 - D. TUR of lesion.
 - E. cystectomy and diversion.