SIMULATION EXAM 15

Recommended Time: 4 Hours | 100 Questions | Passing Score: 70%

10,000 Series — Integumentary System (Questions 1–6)

1. A surgeon excises a 1.5 cm malignant squamous cell carcinoma from the patient's right lower leg with 1.0 cm margins. What is the excised diameter for code selection?

A. 1.5 cm

B. 2.5 cm

C. 2.0 cm

D. 3.5 cm

2. A patient has three lacerations: a 5.0 cm intermediate repair on the left forearm, a 3.0 cm intermediate repair on the right hand, and a 6.0 cm simple repair on the right thigh. The forearm and hand are in the same intermediate repair grouping. How should these be reported?

A. Three separate repair codes

B. One intermediate repair code for 14.0 cm combining all wounds

C. One intermediate repair code for 8.0 cm and one simple repair code for 6.0 cm

D. One complex repair code for 14.0 cm

3. A dermatologist performs destruction of 7 actinic keratoses on a patient's face and 5 benign seborrheic keratoses on the patient's trunk during the same encounter. How should the benign lesion destruction be coded?

A. 17110 × 1, 17111 × 1 (first benign lesion plus additional benign lesions 2–14)

B. 17000 × 1, 17003 × 4 for the benign lesions

C. 17110 × 5

D. The benign lesions are bundled into the actinic keratosis codes

4. A surgeon performs an adjacent tissue transfer (rotation flap) to reconstruct a 15 sq cm defect on the patient's forehead created by excision of a malignant lesion. How should the excision be coded?

A. With a separate malignant excision code and modifier 59

B. It is not coded separately; the excision is included in the adjacent tissue transfer code

C. With a separate benign excision code

D. With the adjacent tissue transfer code and modifier 22

5. A physician performs a tangential shave removal of a 1.1 cm raised benign lesion from the patient's right anterior chest. No full-thickness excision is performed. The chest is classified in the trunk anatomical grouping. How is the code selected?

A. Based on the excised diameter including margins

B. Based on the wound repair classification

C. Based on the depth of the subcutaneous excision

D. Based on the lesion diameter and the anatomical location

6. A surgeon performs a wound closure using a combination of deep absorbable sutures in the subcutaneous tissue and superficial non-absorbable sutures in the skin on a 4.0 cm laceration of the right forearm. Which wound repair classification does this represent?

A. Simple repair

B. Complex repair

C. Intermediate repair — layered closure of subcutaneous tissue and skin

D. No repair code is needed; this is included in the E/M code

20,000 Series — Musculoskeletal System (Questions 7–12)

7. A surgeon performs arthroscopic debridement and partial synovectomy of the left knee. During the same session, a diagnostic arthroscopy is performed. How should the diagnostic arthroscopy be coded?

A. It is not reported separately; it is included in the surgical arthroscopy code

B. As a separate code with modifier 59

C. As a separate code with modifier 51

D. As a separate code with modifier 25

8. An orthopedic surgeon performs open reduction with internal fixation of a displaced midshaft clavicle fracture using a plate and screws. The surgeon provides all preoperative, surgical, and postoperative care. During the global period, the patient returns for a routine follow-up visit with X-rays to assess healing. How should the follow-up be coded?

A. With a separate E/M code for each visit

B. It is not coded separately; it is included in the fracture treatment global package

C. With a separate radiology code for the X-ray and an E/M code

D. With the fracture treatment code and modifier 76

9. A patient undergoes posterior spinal fusion at L4-L5 with autograft bone harvested from the iliac crest through a separate incision, plus posterior pedicle screw instrumentation. How many distinct surgical component codes should be reported?

A. One — a single combined code

B. Two — the fusion and the instrumentation; the bone graft harvest is bundled

C. Two — the fusion and the bone graft; the instrumentation is bundled

D. Three — the fusion, the bone graft harvest, and the instrumentation

10. A patient undergoes trigger finger release on the right index finger and the right middle finger during the same operative session. Each finger has its own code. How should the second finger release be coded?

A. With modifier 51 (multiple procedures) on the second code, or with distinct finger modifiers (F1, F2, etc.)

B. With modifier 59 on the second code

C. With modifier 22 on the first code

D. Only one code; the second finger is bundled

11. A surgeon performs an open repair of a ruptured patellar tendon of the left knee. What type of tendon procedure is this?

A. Tendon transfer

B. Tenotomy

C. Primary tendon repair (tenorrhaphy)

D. Tendon graft

12. A patient undergoes manipulation under anesthesia (MUA) of the left shoulder for adhesive capsulitis (frozen shoulder). No incision is made. This is performed as a standalone procedure, not in conjunction with a surgical procedure. How should this be coded?

A. With an E/M code only; MUA is not a procedure

B. With the MUA code for the shoulder as a standalone procedure

C. With the arthroscopic code and modifier 52

D. With a joint injection code

30,000 Series — Respiratory, Cardiovascular, Hemic, and Lymphatic (Questions 13–18)

13. A patient undergoes bronchoscopy with endobronchial ultrasound (EBUS) guided transbronchial needle aspiration of a subcarinal lymph node and separately with bronchial washing during the same session. How should the diagnostic bronchoscopy be coded?

A. As a separate code with modifier 59

B. As a separate code with modifier 51

C. As a separate code with modifier 25

D. It is not reported separately; it is included in the surgical bronchoscopy codes

14. A cardiologist inserts a new dual-chamber implantable cardioverter-defibrillator (ICD) system — a generator, an atrial lead, and a ventricular lead. How should this be coded?

A. With separate codes for each component — generator insertion, atrial lead insertion, and ventricular lead insertion

B. With a single complete system code

C. With only the generator code; the leads are bundled

D. With only the lead codes; the generator is bundled

15. A surgeon performs a CABG with three saphenous vein grafts and two internal mammary artery grafts (both used as in-situ pedicle grafts) during the same session. How should the bypass grafts be coded?

A. Five separate single-graft codes

B. One code for all five grafts combined

C. A venous graft code for three grafts plus an arterial graft code for two grafts

D. Only the arterial graft code with modifier 22

16. A patient undergoes removal of an infected tunneled central venous catheter. A new tunneled catheter is NOT placed during the same session. How should the removal be coded?

A. With the catheter insertion code and modifier 52

B. With the tunneled catheter removal code

C. With an E/M code only; catheter removal is not separately coded

D. With the catheter insertion code and modifier 76

17. A patient undergoes a VATS right lower lobectomy for non-small cell lung cancer. During the same session, the surgeon performs mediastinal lymph node dissection for staging. The lobectomy is completed thoracoscopically. How should the lymph node dissection be coded?

A. It is included in the lobectomy code

B. With the lobectomy code and modifier 22

C. With an E/M code only

D. With a separate mediastinal lymph node dissection code in addition to the lobectomy code

18. A surgeon performs a right femoral-popliteal bypass graft using a reversed saphenous vein graft for peripheral arterial disease. How is the vein harvest coded?

A. The procurement of the saphenous vein for use as a bypass conduit is included in the bypass graft code; no separate harvest code is reported

B. With a separate vein harvest code and modifier 59

C. With a HCPCS supply code for the vein

D. With an unlisted vascular procedure code

40,000 Series — Digestive System (Questions 19–24)

19. A patient undergoes a colonoscopy with endoscopic mucosal resection (EMR) of a 3.0 cm flat polyp from the cecum and a separate cold forceps biopsy from the terminal ileum during the same session. How should the two surgical procedures be coded?

A. One EMR code only; the biopsy is bundled

B. One biopsy code only; the EMR is bundled

C. Both the EMR code and the biopsy code with appropriate modifier to indicate distinct services

D. A diagnostic colonoscopy code plus one surgical code

20. A surgeon performs a laparoscopic fundoplication (Nissen) for GERD. During the same session, the surgeon also repairs a small hiatal hernia. The laparoscopic fundoplication code includes repair of a hiatal hernia when performed as part of the anti-reflux procedure. How should the hiatal hernia repair be coded?

A. With a separate hernia repair code and modifier 51

B. It is not coded separately; the hiatal hernia repair is included in the fundoplication code when described in the code description

C. With a separate hernia repair code and modifier 59

D. With the fundoplication code and modifier 22

21. A patient undergoes an EGD with dilation of a gastric outlet obstruction using a through-the-scope balloon dilator. How should the diagnostic EGD be coded?

A. As a separate code with modifier 59

B. As a separate code with modifier 51

C. As a separate code with modifier 25

D. It is not reported separately; it is included in the surgical EGD dilation code

22. A surgeon performs an emergency open colectomy with end colostomy (Hartmann procedure) for perforated diverticulitis with fecal peritonitis. What does a Hartmann procedure accomplish?

A. It removes the diseased segment of colon, creates an end colostomy from the proximal colon, and closes the distal rectal stump — avoiding a primary anastomosis in the setting of peritonitis

B. It reconnects the colon to the rectum

C. It removes the entire colon and rectum

D. It creates a permanent ileostomy

23. A patient undergoes flexible sigmoidoscopy with decompression of a sigmoid volvulus by endoscopic detorsion. How should the diagnostic sigmoidoscopy be coded?

A. As a separate code with modifier 59

B. As a separate code with modifier 51

C. It is not reported separately; it is included in the surgical sigmoidoscopy code

D. As a separate code with modifier 25

24. A surgeon performs an ERCP with biliary stent placement and a separate pancreatic duct stent placement during the same session. The biliary and pancreatic stent placements have different CPT codes. How should the diagnostic ERCP be coded?

A. As a separate code with modifier 59

B. It is not reported separately; the diagnostic ERCP is bundled into the surgical codes

C. As a separate code with modifier 25

D. As a separate code with modifier 51

50,000 Series — Urinary, Reproductive, and Endocrine (Questions 25–30)

25. A urologist performs a cystoscopy with laser lithotripsy of a bladder stone. The diagnostic cystoscopy is bundled. What does laser lithotripsy of a bladder stone accomplish?

A. It uses laser energy delivered through the cystoscope to fragment the bladder stone into small pieces that can be evacuated

B. It uses shock waves from outside the body to fragment the stone

C. It surgically opens the bladder to remove the stone

D. It places a stent to bypass the stone

26. A patient undergoes bilateral ureteroscopy with laser lithotripsy for bilateral ureteral stones. The cystoscopy is bundled. How should the bilateral nature be reported?

A. With a single code and no modifier

B. With the ureteroscopy code and modifier 22

C. With two separate cystoscopy codes

D. With the ureteroscopy code and modifier 50 or RT/LT modifiers

27. A physician provides all antepartum care, performs a vaginal delivery with episiotomy, and provides all postpartum care. The episiotomy is performed as part of the delivery. How should the episiotomy be coded?

A. With a separate episiotomy code

B. With the global delivery code and modifier 22

C. It is not coded separately; episiotomy and its repair are included in the vaginal delivery code

D. With a separate wound repair code

28. A surgeon performs a radical cystectomy with ileal conduit urinary diversion for muscle-invasive bladder cancer in a male patient. The radical cystectomy in a male includes removal of the bladder, prostate, and seminal vesicles. How should the prostate removal be coded?

A. With a separate radical prostatectomy code

B. It is not coded separately; the removal of the prostate and seminal vesicles is included in the male radical cystectomy code

C. With a separate prostatectomy code and modifier 51

D. With the radical cystectomy code and modifier 22

29. A urologist performs a vasectomy in the office under local anesthesia. The procedure is performed bilaterally. CPT provides a bilateral vasectomy code. How should this be coded?

A. With the bilateral vasectomy code — a single code that is inherently bilateral

B. With the unilateral vasectomy code and modifier 50

C. With two separate unilateral codes on separate lines

D. With the unilateral code and modifier 22

30. A surgeon performs a right thyroid lobectomy. During the procedure, the surgeon discovers a suspicious contralateral thyroid nodule and performs a biopsy of the left thyroid lobe. The lobectomy and the contralateral biopsy are distinct procedures. How should the biopsy be coded?

A. It is included in the lobectomy code

B. With the lobectomy code and modifier 22

C. With a biopsy code and modifier 50

D. With a separate thyroid biopsy code in addition to the lobectomy code

60,000 Series — Nervous System, Eyes, and Ears (Questions 31–36)

31. A neurosurgeon performs a craniotomy for excision of an intracerebral brain abscess in the supratentorial region. The bone flap is replaced. What type of craniotomy code is selected based on the purpose?

A. Craniotomy for aneurysm repair

B. Craniotomy for brain abscess excision

C. Craniotomy for hematoma evacuation

D. Craniectomy for decompression

32. An ophthalmologist performs a secondary intraocular lens (IOL) insertion in a patient who previously had cataract surgery but did not receive an IOL at that time. Which code should be reported?

A. 66984 (routine cataract extraction with IOL)

B. 66982 (complex cataract extraction with IOL)

C. 66985 (secondary IOL insertion)

D. 66983 (intracapsular cataract extraction)

33. A pain management physician performs a right stellate ganglion block under fluoroscopic guidance for treatment of complex regional pain syndrome of the right upper extremity. How is the stellate ganglion block classified?

A. Sympathetic nerve block

B. Somatic peripheral nerve block

C. Epidural injection

D. Neurolysis

34. A neurosurgeon performs a VP shunt revision — the valve mechanism is replaced while the ventricular catheter and peritoneal catheter are left in place. How should this be coded?

A. With the complete shunt creation code

B. With both the ventricular catheter revision and peritoneal catheter revision codes

C. With the shunt removal code plus a new shunt creation code

D. With the shunt revision code for replacement of the valve component

35. An otolaryngologist performs bilateral tympanostomy tube placement under general anesthesia on a 3-year-old child. The myringotomies are performed to access the middle ear for tube insertion. How should the myringotomies be coded?

A. With separate myringotomy codes for each ear

B. They are not reported separately; the myringotomies are included in the tympanostomy tube insertion codes

C. With a myringotomy code and modifier 50

D. With a myringotomy code and modifier 51

36. An ophthalmologist performs a minimally invasive glaucoma surgery (MIGS) — insertion of an iStent trabecular micro-bypass stent — as a standalone procedure (NOT performed with cataract surgery). How should this be coded?

A. With the combination cataract/MIGS code

B. With the cataract code (66984) alone

C. With the standalone MIGS code

D. With the trabeculectomy code

Evaluation and Management (Questions 37–42)

37. An established patient presents to the office with a new complaint of progressive numbness in both feet. The physician performs a detailed neurological examination, orders EMG/NCS, lab work (hemoglobin A1c, B12, TSH), and refers the patient to neurology. The MDM involves one new problem with uncertain prognosis, moderate data review, and low-risk management. What level of MDM is supported?

A. Low

B. Moderate

C. Straightforward

D. High

38. A physician provides hospital discharge services to a patient with complex discharge needs. The physician spends 25 minutes on the date of discharge performing the final examination, reviewing discharge medications, coordinating home health nursing, and dictating the discharge summary. Which code should be reported?

A. 99231 (subsequent hospital care)

B. 99239 (discharge management, more than 30 minutes)

C. 99291 (critical care)

D. 99238 (discharge management, 30 minutes or less)

39. A patient is seen by a new primary care physician for the first time. The patient has no complaints and presents solely for an initial comprehensive preventive medicine evaluation. The patient is 50 years old. Which E/M code set should be used?

A. Office visit codes for new patients (99202–99205)

B. Preventive medicine codes for new patients based on age

C. Consultation codes

D. Hospital admission codes

40. A physician sees an established patient in the office. The total time on the date of the encounter is 42 minutes. Using the time-based pathway, which code is supported?

A. 99213 (established patient, 20 minutes)

B. 99214 (established patient, 30 minutes)

C. 99215 (established patient, 40 minutes)

D. 99205 (new patient, 60 minutes)

41. A physician provides an established patient office visit (99214) and also performs a punch biopsy of a skin lesion (0-day global period) during the same encounter. The E/M is significant and separately identifiable. Which modifier should be appended to the E/M code?

A. Modifier 25

B. Modifier 57

C. Modifier 59

D. Modifier 51

42. Under the current E/M guidelines, which of the following accurately describes the documentation requirement for the physical examination?

A. A comprehensive 14-system exam is required for level 5 visits

B. A problem-focused exam is required for level 2 visits

C. The exam must follow the 1997 documentation guidelines

D. A medically appropriate examination must be performed and documented, but it is no longer a determining factor for code level selection — MDM or total time determines the level

Anesthesia (Questions 43–46)

43. An anesthesiologist provides general anesthesia for a laparoscopic cholecystectomy on a 45-year-old patient with well-controlled GERD (P2). Total anesthesia time is 90 minutes. The payer uses 15-minute time units and assigns no modifying units for P2. Base units are 7. What is the total unit calculation?

A. 12 units

B. 13 units

C. 14 units

D. 11 units

44. A patient undergoes a surgical procedure under general anesthesia. During the emergence phase, the patient develops laryngospasm requiring emergency reintubation. The laryngospasm management occurs after the surgical procedure is complete but before the patient is transferred to PACU. Is the anesthesia time still running during the laryngospasm management?

A. No; anesthesia time ends when the surgery is complete

B. No; laryngospasm management is a separate procedure

C. Yes; anesthesia time continues until the patient is safely transferred to post-anesthesia care personnel

D. Yes; but only if the laryngospasm lasts more than 15 minutes

45. An anesthesiologist provides anesthesia for an emergency appendectomy on a 78-year-old patient with moderate COPD (P3). Which qualifying circumstances codes apply?

A. 99100 (extreme age — over 70) and 99140 (emergency conditions)

B. 99140 only (emergency conditions)

C. 99100 only (extreme age)

D. Neither applies

46. In the anesthesia payment formula, if a payer uses a 15-minute time unit and the total anesthesia time is 172 minutes, how many time units are calculated?

A. 11.0 units

B. 12.0 units

C. 10.47 units

D. 11.47 units

Radiology (Questions 47–52)

47. A patient undergoes a CT of the chest without contrast to evaluate a pulmonary nodule found on a previous X-ray. No IV contrast is administered. Oral contrast is not given. How should this be coded?

A. CT chest with contrast

B. CT chest without contrast

C. CT chest without contrast followed by with contrast

D. CT angiography of the chest

48. A hospital performs a two-view chest X-ray on a patient in the emergency department. The X-ray is interpreted by a radiologist employed by a separate radiology group under contract. The hospital owns the equipment and employs the technologist. How should the hospital bill?

A. With the global X-ray code

B. With modifier 26

C. With modifier TC

D. With no modifier

49. A patient undergoes a nuclear medicine whole-body PET/CT scan for staging of non-Hodgkin lymphoma. The patient receives an injection of FDG (fluorodeoxyglucose). How does PET differ from standard CT?

A. PET uses X-rays to create cross-sectional images

B. PET uses magnetic fields to create images

C. PET uses ultrasound waves

D. PET detects metabolic activity using a radioactive tracer; standard CT provides anatomical images using X-rays

50. In radiation oncology, a patient receives 42 fractions of radiation therapy. Treatment management (77427) is reported per 5 fractions. How many units of 77427 should be reported?

A. 9 units — 8 full units plus 1 unit with modifier 52 for the remaining 2 fractions

B. 8 units only

C. 42 units

D. 9 full units without modifier

51. A physician in a private office performs and interprets a thyroid ultrasound using practice-owned equipment. Which modifier should be appended?

A. Modifier 26

B. No modifier; the global service is reported

C. Modifier TC

D. Modifier 59

52. A patient undergoes a CT-guided percutaneous biopsy of a liver mass. The CT guidance is NOT included in the biopsy code. A separate radiologist provides and interprets the CT guidance while a different physician performs the biopsy. How should the radiologist bill the CT guidance?

A. With the biopsy code and modifier 26

B. With the CT guidance code and modifier TC

C. With the CT guidance code and modifier 26

D. With the biopsy code and modifier TC

Pathology and Laboratory (Questions 53–58)

53. A physician orders an obstetric panel (80055) and a hemoglobin A1c (83036) on the same pregnant patient at the first prenatal visit. A1c is NOT a component of the obstetric panel. How should these be reported?

A. Only the obstetric panel code; the A1c is bundled

B. Individual codes for all tests; the panel cannot be used with additional tests

C. The obstetric panel code with modifier 22

D. The obstetric panel code plus the individual hemoglobin A1c code

54. A pathologist examines a lung wedge biopsy specimen from a patient with a suspicious pulmonary nodule. At which level of surgical pathology is a lung wedge biopsy classified?

A. Level V (88307)

B. Level IV (88305)

C. Level III (88304)

D. Level VI (88309)

55. A laboratory performs a definitive drug test for amphetamines (2 analytes), opiates (4 analytes), and benzodiazepines (3 analytes) on the same specimen. How many definitive drug testing codes should be reported?

A. One code per date of service

B. Three codes — one for each drug class

C. Nine codes, one for each analyte

D. Two codes — one for stimulants and one for depressants

56. A patient undergoes a fine needle aspiration (FNA) of a neck lymph node under ultrasound guidance. The cytopathologist performs an immediate adequacy assessment of the aspirated material. How many distinct services are potentially reportable?

A. One — a single combined code

B. Two — the FNA and the ultrasound; the adequacy assessment is bundled

C. Three — the FNA procedure, the ultrasound guidance, and the cytopathology adequacy assessment

D. Two — the FNA and the adequacy assessment; the ultrasound is bundled

57. A laboratory performs a urine culture, quantitative (87086). The culture grows 50,000 CFU/mL of Staphylococcus saprophyticus. Sensitivity testing is performed against 6 antibiotics using the microdilution MIC method. How should the sensitivity testing be coded?

A. One sensitivity code for all 6 antibiotics combined

B. Six units of the sensitivity code, one per antibiotic

C. The sensitivity is included in the culture code

D. Six units of the MIC sensitivity code — one per antibiotic agent tested

58. Special stains and immunohistochemistry (IHC) are both performed on a thyroid biopsy specimen. The pathologist orders 1 special stain and 4 IHC antibodies. How should the IHC be coded?

A. 88342 × 1 for the first antibody plus 88341 × 3 for each additional antibody

B. 88342 × 4

C. One IHC panel code

D. 88341 × 4

Medicine (Questions 59–64)

59. A patient receives a 1-hour IV infusion of a chemotherapy agent (gemcitabine) followed by a 30-minute IV infusion of a different chemotherapy agent (cisplatin) through the same IV line sequentially. No hydration is provided. How should the cisplatin infusion be coded?

A. With a second initial chemotherapy infusion code (96413)

B. With the sequential chemotherapy infusion add-on code (96417) for a new substance

C. With the therapeutic drug infusion code (96365)

D. With the hydration add-on code (96361)

60. An adult patient receives four separate vaccine injections at an office visit: influenza, Tdap, pneumococcal, and hepatitis B. No physician counseling is provided. How should the administration be coded?

A. 90460 × 4 (pediatric codes)

B. 90471 × 4

C. One administration code for all four injections

D. 90471 × 1 plus 90472 × 3 (adult codes: first injection plus three additional)

61. A patient undergoes a 72-hour ambulatory ECG (Holter monitor) recording with scanning analysis and physician interpretation. Which code range covers extended ambulatory ECG monitoring?

A. 93000–93010 (standard ECG codes)

B. 93279–93299 (implantable device evaluation)

C. 93224–93227 (up to 48-hour Holter) or 93241–93248 (extended monitoring beyond 48 hours) depending on the specific duration and recording method

D. 93268–93272 (patient-activated event recorder)

62. A therapist provides 15 minutes of therapeutic exercise (97110), 15 minutes of neuromuscular reeducation (97112), and 15 minutes of manual therapy (97140) during the same session. Using the 8-minute rule, how many total timed units are reported?

A. 3 units — one for each timed service (total treatment time of 45 minutes supports exactly 3 units)

B. 2 units

C. 4 units

D. 1 unit

63. A psychiatrist provides a 30-minute medication management visit (E/M) and 45 minutes of psychotherapy during the same encounter. How should the psychotherapy be coded?

A. With standalone psychotherapy code 90834 (45 minutes)

B. With add-on psychotherapy code 90836 (45-minute add-on, 38–52 minute range)

C. With add-on psychotherapy code 90833 (30-minute add-on)

D. With standalone psychotherapy code 90837 (60 minutes)

64. An ophthalmologist performs a comprehensive ophthalmological examination on a new patient and also performs visual field testing (perimetry) during the same visit. The visual field test is a special ophthalmological service. How should the visual field testing be coded?

A. It is included in the comprehensive examination code

B. With the examination code and modifier 22

C. With only the visual field code; the exam is bundled

D. With a separate visual field testing code in addition to the examination code

Medical Terminology (Questions 65–68)

65. The suffix "-ectasis" means which of the following?

A. Narrowing

B. Inflammation

C. Dilation or expansion

D. Surgical removal

66. Which combining form refers to the breast?

A. Mast/o or mamm/o

B. Hyster/o

C. Oophor/o

D. Colp/o

67. The prefix "contra-" means which of the following?

A. With or together

B. Against or opposite

C. Before

D. Around

68. What does the medical term "hepatomegaly" mean?

A. Inflammation of the liver

B. Surgical removal of the liver

C. Liver cancer

D. Enlargement of the liver

Anatomy (Questions 69–72)

69. The coronary arteries supply blood to which structure?

A. The heart muscle (myocardium)

B. The lungs

C. The brain

D. The liver

70. Which anatomical structure filters blood and is the largest lymphoid organ in the body?

A. The thymus

B. The liver

C. The spleen

D. The pancreas

71. The sacrum is composed of how many fused vertebrae?

A. Three

B. Five

C. Seven

D. Twelve

72. The renal cortex and renal medulla are the two main regions of which organ?

A. The adrenal gland

B. The liver

C. The lung

D. The kidney

ICD-10-CM / Diagnosis Coding (Questions 73–77)

73. A patient presents with acute cholecystitis with choledocholithiasis (common bile duct stones). ICD-10-CM provides a combination code that captures both the cholecystitis and the choledocholithiasis. What type of code is this?

A. A combination code

B. A manifestation code

C. An external cause code

D. A Z code

74. A patient is seen for routine follow-up after a right total hip arthroplasty performed 3 months ago. The joint is functioning well with no complications. Which ICD-10-CM code is most appropriate?

A. The osteoarthritis code that was the indication for the surgery

B. T84 (Complication of internal orthopedic prosthetic device)

C. Z96.641 (Presence of right artificial hip joint) for a routine follow-up of a functioning prosthesis

D. M16.11 (Primary osteoarthritis, right hip)

75. In ICD-10-CM, a patient has documented sepsis due to methicillin-resistant Staphylococcus aureus (MRSA). How should sepsis be coded?

A. Only the MRSA code

B. Only the sepsis code without specifying the organism

C. With a Z code for the encounter only

D. With the appropriate sepsis code from A41 category plus additional codes to identify the organism (MRSA) and any organ dysfunction if present

76. A patient has a displaced fracture of the right tibial shaft that is healing with delayed healing. The patient returns for a follow-up visit 8 weeks after the initial treatment. Which 7th character should be used?

A. A (initial encounter)

B. G (subsequent encounter for closed fracture with delayed healing)

C. D (subsequent encounter for routine healing)

D. S (sequela)

77. A coder is assigning a diagnosis for a patient who presents for preoperative medical evaluation before an upcoming elective surgery. Which ICD-10-CM code should be reported as the first-listed diagnosis?

A. Z01.818 (Encounter for other preprocedural examinations) or the appropriate preoperative examination code

B. The surgical diagnosis code

C. Z00.00 (Encounter for general adult medical examination)

D. The patient's chronic condition code

HCPCS Level II (Questions 78–80)

78. A patient receives an injection of triamcinolone acetonide 40 mg into the right knee joint. The HCPCS J-code for triamcinolone acetonide specifies 10 mg per unit. How many units of the J-code should be reported?

A. 1 unit

B. 40 units

C. 4 units

D. 10 units

79. A Medicare patient receives a preventive screening colonoscopy. The patient has no symptoms and no personal history of colon polyps. Which HCPCS modifier identifies the service as a covered preventive service?

A. Modifier GA

B. Modifier GZ

C. Modifier QW

D. Modifier 33

80. A provider administers an IM injection of Depo-Medrol (methylprednisolone acetate) 80 mg. The HCPCS J-code specifies 20 mg per unit. How many units should be reported?

A. 1 unit

B. 4 units

C. 80 units

D. 8 units

Coding Guidelines (Questions 81–87)

81. A surgeon performs a diagnostic cystoscopy. During the procedure, a bladder tumor is identified, and the surgeon performs a transurethral resection of the tumor. How should the diagnostic cystoscopy be coded?

A. It is not reported separately; it is bundled into the surgical cystoscopy code

B. As a separate code with modifier 59

C. As a separate code with modifier 51

D. As a separate code with modifier 25

82. A patient develops a postoperative wound infection during the 90-day global period. The surgeon sees the patient in the office, evaluates the infection, prescribes antibiotics, and performs wound care — but does NOT return the patient to the operating room. How should this office visit be coded?

A. It is included in the global package; no separate code is reported

B. With an E/M code and modifier 79

C. With an E/M code and modifier 24 — a complication-related visit that does NOT involve a return to the OR may be separately reported with modifier 24 when the services exceed the normal postoperative care

D. With an E/M code and modifier 78

83. Under the NCCI, when two codes have a Column 1/Column 2 edit with modifier indicator 1, and the clinical documentation supports that the procedures were performed at separate anatomical sites, which X modifier is most appropriate?

A. Modifier XE (Separate Encounter)

B. Modifier XP (Separate Practitioner)

C. Modifier XU (Unusual Non-Overlapping Service)

D. Modifier XS (Separate Structure)

84. A CPT code has a global period of "090." What does this indicate?

A. The procedure has a 0-day global period

B. The procedure has a 90-day global period — preoperative, intraoperative, and 90 days of postoperative care are included

C. The procedure has a 9-day global period

D. The global period does not apply

85. Which of the following correctly describes when modifier 53 (discontinued procedure) should be used?

A. When the physician begins a procedure but discontinues it due to a threat to the patient's well-being — the procedure was started but not completed

B. When the physician performs a reduced version of a procedure by choice

C. When the procedure is cancelled before it begins

D. When the procedure is performed as a repeat of a previous procedure

86. In CPT, which symbol identifies a code that has been reinstated after being deleted in a previous edition?

A. Triangle (▲)

B. Plus sign (+)

C. Circle with an arrow or recycling symbol — check current CPT conventions for reinstated codes

D. Filled circle (●)

87. A surgeon performs two separate procedures during the same operative session. The first procedure is the primary (highest RVU) procedure. The second procedure is an add-on code. How should the add-on code be reported?

A. With modifier 51

B. With modifier 59

C. With modifier 22

D. Without modifier 51 — add-on codes are exempt from modifier 51 and are reported without it

Compliance and Regulatory (Questions 88–90)

88. Under the Anti-Kickback Statute, "safe harbors" are specific business arrangements that are exempt from prosecution. Which of the following is an example of a safe harbor?

A. Paying physicians cash bonuses for each referral

B. Certain properly structured personal services and management contracts that meet all safe harbor requirements

C. Providing free luxury vacations to referring physicians

D. Waiving all copays and deductibles without verifying financial hardship

89. A medical practice implements a compliance program. Which of the following is one of the OIG's seven recommended elements?

A. Designation of a compliance officer responsible for overseeing the compliance program

B. Hiring only certified coders with at least 10 years of experience

C. Performing external audits quarterly

D. Eliminating all billing errors within 6 months

90. Under Medicare, the conversion factor is updated and published annually. What does the conversion factor represent?

A. The number of RVUs assigned to each CPT code

B. The geographic adjustment applied to each RVU component

C. The dollar amount that converts total adjusted RVUs into a payment amount

D. The percentage reduction applied to multiple procedures

Cases — Integrated Coding Scenarios (Questions 91–100)

Case 1 (Questions 91–92):

A 55-year-old patient undergoes excision of a 1.8 cm malignant basal cell carcinoma from the right temple with 0.4 cm margins. The wound is closed with adjacent tissue transfer (advancement flap) measuring 8 sq cm.

91. How should the excision of the basal cell carcinoma be coded?

A. With a separate malignant excision code and modifier 59

B. With a separate benign excision code

C. With the adjacent tissue transfer code and modifier 22

D. It is not coded separately; the excision is included in the adjacent tissue transfer code

92. The adjacent tissue transfer is performed on the temple (face grouping). How should the flap be coded?

A. With a free skin graft code

B. With the adjacent tissue transfer code for the face based on defect size in square centimeters

C. With a wound repair code

D. With the excision code only

Case 2 (Questions 93–94):

A 68-year-old patient undergoes a left total knee arthroplasty for severe osteoarthritis. The anesthesiologist provides general anesthesia. Total anesthesia time is 165 minutes. The patient is classified as P3 (severe COPD on home oxygen). The payer uses 15-minute time units and assigns 1 modifying unit for P3. Base units are 7.

93. What is the total anesthesia unit calculation?

A. 19 units

B. 17 units

C. 20 units

D. 18 units

94. The patient is 68 years old. Does qualifying circumstances code 99100 (extreme age) apply?

A. Yes; 99100 applies to patients over 65

B. Yes; 99100 applies to patients over 60

C. No; extreme age is defined as under 1 year or over 70 years — the patient at 68 does not qualify

D. Yes; 99100 applies to all Medicare patients

Case 3 (Questions 95–96):

A patient receives IV services during a single outpatient encounter: 45 minutes of IV hydration with normal saline, a 2-hour IV infusion of rituximab (antineoplastic agent for lymphoma — chemotherapy indication), and an IV push of dexamethasone (non-chemotherapy supportive agent).

95. According to the infusion hierarchy, which service is the initial service?

A. The IV hydration

B. The dexamethasone IV push

C. Each service is a separate initial service

D. The rituximab chemotherapy infusion

96. The IV hydration lasted 45 minutes. Since chemotherapy is the initial service, how should the hydration be reported?

A. As the initial hydration code (96360)

B. As a secondary/sequential hydration service using the appropriate add-on code

C. Hydration is not reportable when chemotherapy is provided

D. With the hydration code and modifier 59

Case 4 (Questions 97–98):

A surgeon performs a right inguinal hernia repair (open, initial, reducible) on a 50-year-old patient. The surgeon provides all preoperative, surgical, and postoperative care. During the 90-day global period, the patient develops an unrelated skin abscess on the left arm that requires incision and drainage.

97. The surgeon provides all components of care for the hernia repair. How should the hernia repair be coded?

A. With the complete global package — no splitting modifiers

B. With modifier 54

C. With modifier 55

D. With modifier 56

98. The skin abscess I&D is a completely unrelated procedure performed during the 90-day global period of the hernia repair. Which modifier should be appended to the I&D code?

A. Modifier 58 (staged procedure)

B. Modifier 24 (unrelated E/M)

C. Modifier 79 (unrelated procedure during the postoperative period)

D. Modifier 78 (complication requiring return to OR)

Case 5 (Questions 99–100):

A 70-year-old Medicare patient presents for a screening colonoscopy. The gastroenterologist identifies and removes two polyps — a 1.5 cm pedunculated polyp from the ascending colon by snare technique and a 0.3 cm polyp from the sigmoid colon by cold forceps biopsy technique. Both techniques are used.

99. How should the polyp removals be coded?

A. One snare polypectomy code only; the biopsy is bundled

B. Two snare polypectomy codes

C. One diagnostic colonoscopy code plus one polypectomy code

D. One snare polypectomy code and one cold forceps biopsy polypectomy code with appropriate modifier

100. Which diagnosis should be reported as the first-listed code?

A. K63.5 (Polyp of colon)

B. Z12.11 (Encounter for screening for malignant neoplasm of colon)

C. Z80.0 (Family history of malignant neoplasm of digestive organs)

D. R19.5 (Other fecal abnormalities)

SIMULATION EXAM 15 — ANSWER KEY WITH EXPLANATIONS

10,000 Series — Integumentary System

1. **D. 3.5 cm** The excised diameter is calculated as lesion diameter plus margins on both sides: 1.5 cm + (1.0 cm × 2) = 3.5 cm. The margin is doubled because normal tissue is removed circumferentially around the entire lesion. This 3.5 cm excised diameter determines the correct code within the malignant excision range for the leg anatomical grouping.

2. **C. One intermediate repair code for 8.0 cm and one simple repair code for 6.0 cm** Wounds of the same classification in the same anatomical grouping are combined. The two intermediate repairs on the forearm and hand (5.0 + 3.0 = 8.0 cm) are in the same grouping and classification. The simple repair on the thigh (6.0 cm) is a different classification and is reported separately. Different classifications are always reported separately.

3. **A. 17110 × 1, 17111 × 1 (first benign lesion plus additional benign lesions 2–14)** Benign lesion destruction (seborrheic keratoses) uses a different code range from premalignant lesion destruction (actinic keratoses). For the 5 benign lesions: 17110 × 1 (first lesion) plus 17111 × 1 (lesions 2 through 14 as a flat code). The actinic keratoses are coded separately using 17000 × 1 plus 17003 × 6.

4. **B. It is not coded separately; the excision is included in the adjacent tissue transfer code** Adjacent tissue transfer codes include the excision of the lesion that created the defect. The excision is an integral component of the flap procedure and is not reported separately. This bundling rule applies specifically to adjacent tissue transfer — it differs from free skin grafts, where the excision may be coded separately.

5. **D. Based on the lesion diameter and the anatomical location** Shave removal codes are based on the lesion diameter and anatomical site — not the excised diameter. Unlike excision codes, shave removals do not involve full-thickness excision with margins. No margin calculation is needed. The 1.1 cm lesion diameter and the trunk location determine the code.

6. **C. Intermediate repair — layered closure of subcutaneous tissue and skin** When a wound is closed using a layered technique — deep sutures in the subcutaneous tissue plus superficial sutures in the skin — this constitutes intermediate (layered) repair. Intermediate repair requires closure of one or more deeper layers of subcutaneous tissue and superficial fascia in addition to the skin. Simple repair involves only a single-layer skin closure.

20,000 Series — Musculoskeletal System

7. **A. It is not reported separately; it is included in the surgical arthroscopy code** Diagnostic arthroscopy is always bundled into surgical arthroscopy when both are performed on the same joint during the same session. The debridement and partial synovectomy are surgical arthroscopic procedures — the diagnostic examination is included and is not separately reportable.

8. **B. It is not coded separately; it is included in the fracture treatment global package** Routine follow-up visits including X-rays during the fracture treatment global period are bundled into the fracture treatment code. The global package includes all routine postoperative care, imaging for healing assessment, and cast/splint management during the healing period.

9. **D. Three — the fusion, the bone graft harvest, and the instrumentation** When posterior spinal fusion, bone graft harvest from a separate incision (iliac crest), and posterior instrumentation are all performed during the same session, three distinct component codes are reported. Each addresses a different surgical objective — biological fusion, graft procurement, and mechanical stabilization.

10. **A. With modifier 51 (multiple procedures) on the second code, or with distinct finger modifiers (F1, F2, etc.)** When trigger finger release is performed on two separate fingers during the same session, each finger has its own code. The second code is reported with modifier 51 for multiple procedures or with distinct finger modifiers (F6 for right index, F7 for right middle, etc.) to identify the specific fingers. The second finger release is not bundled.

11. **C. Primary tendon repair (tenorrhaphy)** Open repair of a ruptured patellar tendon involves direct suturing of the torn tendon ends back together — this is a primary tendon repair (tenorrhaphy). The patellar tendon connects the patella to the tibial tuberosity. Rupture typically occurs at the inferior pole of the patella. This differs from tendon transfer, graft, or release.

12. **B. With the MUA code for the shoulder as a standalone procedure** Manipulation under anesthesia of the shoulder for adhesive capsulitis is a distinct procedure with its own CPT code when performed as a standalone service. The physician forcibly moves the shoulder through a full range of motion while the patient is under anesthesia to break up adhesions. No incision is required.

30,000 Series — Respiratory, Cardiovascular, Hemic, and Lymphatic

13. **D. It is not reported separately; it is included in the surgical bronchoscopy codes** Diagnostic bronchoscopy is bundled into surgical bronchoscopy when both are performed during the same session. The EBUS-guided transbronchial needle aspiration and the bronchial washing are separate surgical procedures, each with their own code. The diagnostic examination is included in the surgical codes.

14. **A. With separate codes for each component — generator insertion, atrial lead insertion, and ventricular lead insertion** ICD system coding uses a component-based approach. The generator insertion, atrial lead insertion, and ventricular lead insertion each have their own CPT code. All

three components are reported separately. There is no single "complete system" code that bundles all components.

15. **C. A venous graft code for three grafts plus an arterial graft code for two grafts** CABG coding separates venous and arterial grafts. The three saphenous vein grafts are reported with the venous CABG code specifying three grafts. The two IMA grafts are reported with the arterial CABG code specifying two grafts. The procurement of in-situ IMA grafts is included in the arterial code.

16. **B. With the tunneled catheter removal code** When a tunneled catheter is removed without replacement during the same session, only the removal code is reported. CPT provides a specific code for tunneled catheter removal (36589). The insertion code is not applicable because no new catheter is being placed.

17. **D. With a separate mediastinal lymph node dissection code in addition to the lobectomy code** Mediastinal lymph node dissection for staging during a lobectomy is a separate service coded in addition to the lobectomy. The lymph node dissection serves a different surgical purpose (staging) than the lobectomy (tumor removal). Both codes are reported.

18. **A. The procurement of the saphenous vein for use as a bypass conduit is included in the bypass graft code; no separate harvest code is reported** When a saphenous vein is harvested for use as a femoral-popliteal bypass graft, the vein procurement is included in the bypass graft code. No separate harvest code is reported for lower extremity bypass using saphenous vein. This differs from CABG, where separate vein procurement codes may be reported depending on technique.

40,000 Series — Digestive System

19. **C. Both the EMR code and the biopsy code with appropriate modifier to indicate distinct services** When different surgical procedures (EMR and cold forceps biopsy) are performed at different sites during the same colonoscopy, each is reported with its own code. Modifier 59 or XS is appended to the lesser procedure. The diagnostic colonoscopy is bundled into the surgical codes.

20. **B. It is not coded separately; the hiatal hernia repair is included in the fundoplication code when described in the code description** When the laparoscopic fundoplication CPT code description includes repair of a hiatal hernia as part of the anti-reflux procedure, the hernia repair is bundled. The coder must read the complete code description to verify. Reporting a separate hernia repair code constitutes unbundling.

21. **D. It is not reported separately; it is included in the surgical EGD dilation code** When a surgical procedure (balloon dilation) is performed during an EGD, the diagnostic examination is bundled into the surgical code. Only the surgical EGD dilation code is reported. The endoscopic hierarchy applies consistently.

22. **A. It removes the diseased segment of colon, creates an end colostomy from the proximal colon, and closes the distal rectal stump — avoiding a primary anastomosis in the setting of**

peritonitis A Hartmann procedure involves resecting the diseased colon segment, creating an end colostomy from the proximal colon, and closing (stapling) the distal rectal stump. This avoids a primary anastomosis in a contaminated surgical field (peritonitis), which would have a high leak rate. The colostomy may be reversed in a later operation.

23. **C. It is not reported separately; it is included in the surgical sigmoidoscopy code** When a surgical procedure (decompression of volvulus) is performed during a sigmoidoscopy, the diagnostic examination is bundled into the surgical code. Only the surgical sigmoidoscopy code for decompression is reported.

24. **B. It is not reported separately; the diagnostic ERCP is bundled into the surgical codes** Diagnostic ERCP is bundled into surgical ERCP when surgical procedures are performed during the same session. The biliary stent and pancreatic stent placements are separate surgical ERCP procedures, each reported with their own codes. The diagnostic examination is included.

50,000 Series — Urinary, Reproductive, and Endocrine

25. **A. It uses laser energy delivered through the cystoscope to fragment the bladder stone into small pieces that can be evacuated** Laser lithotripsy of a bladder stone involves directing laser energy (typically holmium laser) through the cystoscope at the stone to fragment it into small pieces. The fragments are then irrigated or suctioned out of the bladder. This is a transurethral intracorporeal approach — different from ESWL (extracorporeal) and open cystolithotomy.

26. **D. With the ureteroscopy code and modifier 50 or RT/LT modifiers** Ureteroscopy codes are unilateral. When performed bilaterally, the procedure is reported with modifier 50 (bilateral) or on separate lines with RT and LT modifiers. Bilateral ureteral stones requiring bilateral ureteroscopy constitute a bilateral procedure.

27. **C. It is not coded separately; episiotomy and its repair are included in the vaginal delivery code** Episiotomy performed during a vaginal delivery and its subsequent repair are included in the delivery code. The episiotomy is considered a standard component of the delivery service. A separate episiotomy or repair code is not reported in addition to the delivery code.

28. **B. It is not coded separately; the removal of the prostate and seminal vesicles is included in the male radical cystectomy code** The male radical cystectomy code includes removal of the bladder, prostate, and seminal vesicles in its code description. These structures are routinely removed en bloc as part of the radical cystectomy for bladder cancer in males. Reporting a separate prostatectomy code constitutes unbundling.

29. **A. With the bilateral vasectomy code — a single code that is inherently bilateral** CPT provides a specific code for bilateral vasectomy (55250) that is inherently bilateral. A single code captures the complete bilateral procedure. Modifier 50 is not needed because the code description already specifies bilateral. This is different from procedures with unilateral codes that require laterality modifiers.

30. **D. With a separate thyroid biopsy code in addition to the lobectomy code** The right lobectomy and the left thyroid biopsy are distinct procedures performed on different lobes of the thyroid gland. The biopsy is a separate service addressing a different clinical question (evaluation of a contralateral suspicious nodule). Both codes are reported with appropriate modifiers if NCCI edits require them.

60,000 Series — Nervous System, Eyes, and Ears

31. **B. Craniotomy for brain abscess excision** Craniotomy codes for brain abscess excision have their own specific CPT codes distinct from codes for tumor excision, hematoma evacuation, or aneurysm repair. The purpose of the craniotomy determines which code category is selected. Brain abscess excision involves removing the abscess capsule and its purulent contents.

32. **C. 66985 (secondary IOL insertion)** When an IOL is inserted as a secondary procedure in a patient who previously had cataract surgery without IOL implantation, code 66985 is reported. This is distinct from primary cataract extraction with IOL (66984) because no cataract extraction is performed during this procedure — only the lens implantation.

33. **A. Sympathetic nerve block** The stellate ganglion is a sympathetic ganglion located at the C7-T1 level. A stellate ganglion block targets the sympathetic nervous system to treat conditions mediated by sympathetic dysfunction in the head, neck, and upper extremity — such as CRPS. This is classified as a sympathetic nerve block, distinct from somatic peripheral nerve blocks.

34. **D. With the shunt revision code for replacement of the valve component** When only the valve mechanism of a VP shunt is replaced while the ventricular and peritoneal catheters are left in place, the valve revision code is reported. Component-based coding means each shunt component is coded only when directly involved in the procedure. No catheter codes are needed because the catheters were not manipulated.

35. **B. They are not reported separately; the myringotomies are included in the tympanostomy tube insertion codes** The myringotomy is the access step required to insert the tympanostomy tube — it is inherently included in the tube insertion code. Reporting separate myringotomy codes constitutes unbundling. The tube insertion code captures the complete service for each ear. The bilateral nature is reported with modifier 50.

36. **C. With the standalone MIGS code** When a MIGS procedure is performed as a standalone procedure without concurrent cataract surgery, the standalone MIGS code is reported. The combination cataract/MIGS codes are only used when MIGS is performed concurrently with cataract extraction. The standalone code captures the independent MIGS service.

Evaluation and Management

37. **A. Low** One new problem with uncertain prognosis constitutes low-to-moderate problem complexity. Moderate data review (ordering tests and reviewing results). Low-risk management (new referral, diagnostic workup without high-risk intervention). The MDM elements support low

complexity overall. Two of three elements must meet a threshold — the problem complexity and data may be moderate, but with low risk, the overall MDM is low.

38. **D. 99238 (discharge management, 30 minutes or less)** Hospital discharge day management codes are based on total time spent on discharge activities. Code 99238 covers 30 minutes or less. The physician spent 25 minutes, which falls within the 30-minute-or-less threshold. Code 99239 would require more than 30 minutes.

39. **B. Preventive medicine codes for new patients based on age** When a new patient presents solely for an initial preventive medicine evaluation with no other problems, the preventive medicine codes for new patients are used. The specific code is based on the patient's age group. A 50-year-old falls in the 40–64 age range. Office visit codes would be inappropriate for a purely preventive encounter.

40. **C. 99215 (established patient, 40 minutes)** Under the time-based pathway, 99215 requires a minimum of 40 minutes for an established patient. The physician spent 42 minutes, which meets and exceeds the 40-minute threshold. The additional 2 minutes beyond 40 does not reach the 15-minute threshold for prolonged services (99417).

41. **A. Modifier 25** Modifier 25 is appended to the E/M code when a significant, separately identifiable E/M service is performed on the same day as a procedure with a 0-day or 10-day global period. A punch biopsy has a 0-day global period. Modifier 57 is reserved for major procedures with 90-day global periods.

42. **D. A medically appropriate examination must be performed and documented, but it is no longer a determining factor for code level selection — MDM or total time determines the level** Under the current E/M guidelines, a medically appropriate history and examination are still required but do not determine the code level. The code level is selected based on either MDM complexity or total time. The previous framework requiring specific history and exam element counts has been replaced.

Anesthesia

43. **B. 13 units** Base units (7) + Time units (90 minutes ÷ 15 minutes/unit = 6.0) + Modifying units (P2 = 0) = 13.0 total units. Physical status P2 (well-controlled GERD) does not add modifying units. The calculation: 7 + 6 + 0 = 13.

44. **C. Yes; anesthesia time continues until the patient is safely transferred to post-anesthesia care personnel** Anesthesia time begins when the anesthesiologist begins preparing the patient for anesthesia and ends when the patient is safely transferred to post-anesthesia care personnel. Complications occurring during emergence (such as laryngospasm) are still within the anesthesia time because the patient has not yet been transferred to PACU care.

45. **A. 99100 (extreme age — over 70) and 99140 (emergency conditions)** The patient is 78 years old (over 70, qualifying for 99100) and is undergoing an emergency procedure (qualifying for

99140). Both qualifying circumstances codes apply and are reported as add-on codes to the primary anesthesia code. Each adds modifying units to the anesthesia formula.

46. **D. 11.47 units** Time units are calculated by dividing total anesthesia minutes by the payer's minutes-per-unit value: 172 minutes ÷ 15 minutes/unit = 11.47 time units. Many payers calculate time units to one or two decimal places. Some payers round to the nearest whole unit or use other rounding conventions.

Radiology

47. **B. CT chest without contrast** No IV contrast was administered. Oral contrast was not given. The study is coded as CT chest without contrast. The "with contrast" designation requires IV or injected contrast. If the study had included IV contrast, it would be coded as "with contrast."

48. **C. With modifier TC** The hospital provides the equipment, room, and technologist — the technical component. The hospital bills with modifier TC. The separate radiology group provides the interpretation (professional component) and bills with modifier 26. Each entity bills only for the component it provided.

49. **D. PET detects metabolic activity using a radioactive tracer; standard CT provides anatomical images using X-rays** PET (positron emission tomography) detects metabolic activity by imaging the distribution of a radioactive tracer (FDG — fluorodeoxyglucose). Cancer cells have higher metabolic rates and absorb more FDG. Standard CT uses X-rays to create anatomical images. PET/CT combines both metabolic and anatomical information for comprehensive staging.

50. **A. 9 units — 8 full units plus 1 unit with modifier 52 for the remaining 2 fractions** Treatment management (77427) is reported per 5 fractions. For 42 fractions: 42 ÷ 5 = 8 full units (40 fractions) with 2 remaining fractions. The ninth unit covers fewer than 5 fractions, so modifier 52 is appended to indicate a reduced service. Total: 8 full units plus 1 unit with modifier 52.

51. **B. No modifier; the global service is reported** When a physician performs and interprets an ultrasound in their own office using practice-owned equipment, both components are provided by the same entity. The global code is reported without any modifier.

52. **C. With the CT guidance code and modifier 26** The radiologist provides only the professional component of the CT guidance — the guidance and interpretation. Modifier 26 is appended to the CT guidance code because the radiologist did not provide the technical component (the CT equipment and technologist). The biopsy code is reported by the physician who performed the biopsy.

Pathology and Laboratory

53. **D. The obstetric panel code plus the individual hemoglobin A1c code** Hemoglobin A1c is not a component of the obstetric panel. When all panel components are performed plus an additional

test not in the panel, the panel code is reported plus the individual code for the additional test. The panel captures the bundled components, and the A1c captures the additional analyte.

54. **A. Level V (88307)** A lung wedge biopsy specimen is classified at Level V surgical pathology (88307). Level V covers complex specimens requiring thorough evaluation including assessment of the pulmonary nodule for malignancy, evaluation of margins, and characterization of the lesion's histologic type.

55. **B. Three codes — one for each drug class** Definitive drug testing codes are reported per drug class, with the specific code selected based on the number of analytes within each class. Three drug classes (amphetamines, opiates, benzodiazepines) require three separate codes. Each code is selected based on the analyte count within its respective class.

56. **C. Three — the FNA procedure, the ultrasound guidance, and the cytopathology adequacy assessment** The FNA procedure, the ultrasound guidance, and the cytopathology adequacy assessment (88172) are three distinct services. The FNA code covers the needle aspiration. The ultrasound guidance code covers the imaging. The cytopathology code covers the immediate evaluation of specimen adequacy by the cytopathologist.

57. **D. Six units of the MIC sensitivity code — one per antibiotic agent tested** Sensitivity testing using the microdilution MIC method is coded per antibiotic agent tested. Six antibiotics = 6 units. The MIC method code is distinct from the disk diffusion method code. The culture code is reported separately for organism identification.

58. **A. 88342 × 1 for the first antibody plus 88341 × 3 for each additional antibody** IHC is coded per antibody per specimen. Code 88342 covers the first antibody, and code 88341 (add-on) covers each additional antibody. Four antibodies require 88342 × 1 plus 88341 × 3. The special stain (1 stain) is coded separately with 1 unit of the special stain code.

Medicine

59. **B. With the sequential chemotherapy infusion add-on code (96417) for a new substance** Cisplatin is a different chemotherapy drug infused sequentially after the gemcitabine through the same IV line. Code 96417 (sequential chemotherapy infusion of a new substance) is the appropriate add-on code. A second initial infusion code (96413) cannot be reported because only one initial service is allowed per encounter.

60. **D. 90471 × 1 plus 90472 × 3 (adult codes: first injection plus three additional)** For adult patients without physician counseling, the adult injection-based codes are used. Code 90471 covers the first vaccine injection, and 90472 covers each additional injection. Four injections = 90471 × 1 + 90472 × 3.

61. **C. 93224–93227 (up to 48-hour Holter) or 93241–93248 (extended monitoring beyond 48 hours) depending on the specific duration and recording method** A 72-hour ambulatory ECG recording exceeds the standard 48-hour Holter monitor range. For monitoring beyond 48 hours,

the extended monitoring codes (93241–93248) cover recordings up to 7 days. The specific code depends on the recording duration and whether the analysis includes scanning and physician interpretation.

62. **A. 3 units — one for each timed service (total treatment time of 45 minutes supports exactly 3 units)** Total timed service time is 45 minutes (15 + 15 + 15). At 15 minutes per unit, 45 minutes supports exactly 3 units. Each service contributes one full 15-minute unit. No partial units require the 8-minute threshold calculation.

63. **B. With add-on psychotherapy code 90836 (45-minute add-on, 38–52 minute range)** When a psychiatrist provides both an E/M service and psychotherapy during the same encounter, the add-on psychotherapy codes are used. Forty-five minutes of psychotherapy falls in the 38–52 minute range, corresponding to add-on code 90836. The E/M code is reported first, and the add-on code is reported second.

64. **D. With a separate visual field testing code in addition to the examination code** Visual field testing (92081–92083) is a special ophthalmological diagnostic service coded separately from the comprehensive examination. When both are performed during the same visit, both codes are reported. The visual field test is not bundled into the examination code.

Medical Terminology

65. **C. Dilation or expansion** The suffix "-ectasis" means dilation, expansion, or stretching. Common examples include bronchiectasis (dilation of the bronchi), atelectasis (incomplete expansion of the lung), and telangiectasia (dilation of small blood vessels). "-Stenosis" means narrowing, "-itis" means inflammation, and "-ectomy" means surgical removal.

66. **A. Mast/o or mamm/o** The combining forms "mast/o" and "mamm/o" both refer to the breast. Common terms include mastectomy (removal of the breast), mammography (breast imaging), mammoplasty (surgical reshaping of the breast), and mastitis (inflammation of the breast). "Hyster/o" refers to the uterus, "oophor/o" refers to the ovary, and "colp/o" refers to the vagina.

67. **B. Against or opposite** The prefix "contra-" means against or opposite. Common terms include contraindication (a condition against using a treatment), contralateral (opposite side), and contraception (against conception/pregnancy). "Co-" or "con-" means with or together, "pre-" means before, and "peri-" means around.

68. **D. Enlargement of the liver** Hepatomegaly means enlargement of the liver, from "hepat/o" (liver) and "-megaly" (enlargement). It is a physical finding detected on examination or imaging. Hepatitis means inflammation of the liver. Hepatectomy means surgical removal of the liver. Hepatoma is a liver tumor.

Anatomy

69. **A. The heart muscle (myocardium)** The coronary arteries (left main, left anterior descending, left circumflex, and right coronary artery) supply oxygenated blood to the myocardium — the heart muscle itself. Blockage of coronary arteries causes myocardial ischemia and infarction. CABG surgery bypasses blocked coronary arteries to restore blood flow to the heart muscle.

70. **C. The spleen** The spleen is the largest lymphoid organ in the body. It filters blood, removes old or damaged red blood cells, and plays an important role in immune function by producing antibodies and filtering bacteria. The spleen is located in the left upper quadrant of the abdomen. Splenectomy (removal of the spleen) increases susceptibility to certain infections.

71. **B. Five** The sacrum is composed of five fused vertebrae (S1–S5) that form a triangular bone at the base of the spine. The sacrum articulates with the fifth lumbar vertebra superiorly, the coccyx inferiorly, and the iliac bones laterally at the sacroiliac joints. Sacral nerve roots exit through the sacral foramina.

72. **D. The kidney** The renal cortex (outer region) and renal medulla (inner region) are the two main structural regions of the kidney. The cortex contains the glomeruli where blood filtration begins. The medulla contains the collecting ducts and loops of Henle where urine is concentrated. Together they form the functional tissue (parenchyma) of the kidney.

ICD-10-CM / Diagnosis Coding

73. **A. A combination code** ICD-10-CM provides combination codes in the K80 category that capture both gallstone conditions and their associated complications in a single code. A combination code for choledocholithiasis with acute cholecystitis eliminates the need for two separate codes. The coder selects the specific code that matches the documented combination.

74. **C. Z96.641 (Presence of right artificial hip joint) for a routine follow-up of a functioning prosthesis** When a patient presents for routine follow-up after joint replacement with no complications, the status code Z96.641 identifies the presence of the right artificial hip joint. The original osteoarthritis code is not appropriate because the condition has been treated. The complication code (T84) is not used because there are no complications.

75. **D. With the appropriate sepsis code from A41 category plus additional codes to identify the organism (MRSA) and any organ dysfunction if present** Sepsis coding requires the sepsis code from the A41 category specifying the organism. MRSA sepsis has a specific code (A41.02). If severe sepsis with organ dysfunction is present, additional codes from R65.2 and the organ dysfunction codes are reported. The coding captures the full clinical picture.

76. **B. G (subsequent encounter for closed fracture with delayed healing)** The 7th character "G" indicates a subsequent encounter for a closed fracture with delayed healing. The patient is returning for follow-up at 8 weeks with documented delayed healing. "D" would indicate routine healing. "A" would be the initial active treatment encounter. "S" would be for sequela after healing.

77. **A. Z01.818 (Encounter for other preprocedural examinations) or the appropriate preoperative examination code** When a patient presents specifically for a preoperative medical evaluation, the preoperative examination Z code is reported as the first-listed diagnosis. The surgical diagnosis and any chronic conditions evaluated during the visit are reported as secondary diagnoses. This identifies the purpose of the encounter.

HCPCS Level II

78. **C. 4 units** The HCPCS J-code for triamcinolone acetonide specifies 10 mg per unit. The physician administered 40 mg: 40 mg ÷ 10 mg/unit = 4 units. HCPCS drug codes specify a defined quantity per unit, and the total units must reflect the total amount administered.

79. **D. Modifier 33** Modifier 33 (preventive services) identifies services mandated as preventive under applicable law. A screening colonoscopy for a Medicare patient with no symptoms and no history is a covered preventive service. Modifier 33 signals the payer to waive cost-sharing requirements.

80. **B. 4 units** The HCPCS J-code for Depo-Medrol specifies 20 mg per unit. The physician administered 80 mg: 80 mg ÷ 20 mg/unit = 4 units. Always verify the per-unit dosage in the specific J-code description, as different formulations may have different per-unit amounts.

Coding Guidelines

81. **A. It is not reported separately; it is bundled into the surgical cystoscopy code** Diagnostic cystoscopy is bundled into surgical cystoscopy when both are performed during the same session. The TURBT is a surgical cystoscopic procedure — the diagnostic examination is included. This follows the standard endoscopic hierarchy.

82. **C. With an E/M code and modifier 24** A postoperative complication (wound infection) evaluated in the office — without a return to the operating room — may be separately reported with an E/M code and modifier 24 when the services provided exceed the normal postoperative care included in the global package. Modifier 78 applies only when the patient returns to the OR. Simple routine wound checks would be included in the global package.

83. **D. Modifier XS (Separate Structure)** Modifier XS (Separate Structure) specifically indicates that the procedures were performed on separate anatomical sites or organ systems. When two procedures are performed at different anatomical structures, XS is the most appropriate X modifier. XE is for separate encounters, XP is for separate practitioners, XU is for unusual non-overlapping services.

84. **B. The procedure has a 90-day global period — preoperative, intraoperative, and 90 days of postoperative care are included** A global period of "090" indicates a 90-day global period for a major surgical procedure. The global package includes preoperative care on the day before or day of surgery, the surgical procedure itself, and 90 days of routine postoperative care.

85. **A. When the physician begins a procedure but discontinues it due to a threat to the patient's well-being — the procedure was started but not completed** Modifier 53 is used when a physician starts a procedure but must stop before completing it due to a threat to the patient's safety. The procedure was initiated — distinguishing modifier 53 from modifier 73/74 (facility-reported discontinued procedures) and from modifier 52 (reduced services by physician choice).

86. **C. Circle with an arrow or recycling symbol — check current CPT conventions for reinstated codes** CPT uses specific symbols to identify reinstated codes. The exact symbol may vary by edition — typically a circle with a horizontal arrow or a recycling-type symbol. The coder should consult the current CPT edition's introduction section for the complete legend of symbols.

87. **D. Without modifier 51 — add-on codes are exempt from modifier 51 and are reported without it** Add-on codes are exempt from modifier 51 (multiple procedures). They are never subject to the multiple procedure payment reduction and are reimbursed at 100% of their allowed amount. Add-on codes must always accompany a designated primary procedure code and are reported without modifier 51.

Compliance and Regulatory

88. **B. Certain properly structured personal services and management contracts that meet all safe harbor requirements** The Anti-Kickback Statute includes safe harbor provisions that protect specific business arrangements from prosecution when all requirements are met. Personal services and management contracts are one example of a safe harbor — provided the arrangement is in writing, specifies services, has a set term, and involves fair market value compensation.

89. **A. Designation of a compliance officer responsible for overseeing the compliance program** The OIG's seven recommended elements of an effective compliance program include designation of a compliance officer, development of compliance policies and procedures, training and education, internal auditing and monitoring, responding to detected offenses, open communication channels, and enforcement through disciplinary guidelines.

90. **C. The dollar amount that converts total adjusted RVUs into a payment amount** The conversion factor is the dollar amount published annually by CMS that converts total adjusted RVUs into an actual payment. The formula: Total Adjusted RVUs × Conversion Factor = Payment. Changes to the conversion factor directly affect physician reimbursement across all CPT codes.

Cases — Integrated Coding Scenarios

91. **D. It is not coded separately; the excision is included in the adjacent tissue transfer code** Adjacent tissue transfer codes include the excision of the lesion that created the defect. The excision is bundled into the flap code and is not reported separately. This is a key distinction from free skin grafts, where the excision may be coded separately.

92. **B. With the adjacent tissue transfer code for the face based on defect size in square centimeters** Adjacent tissue transfer codes are organized by defect size and anatomical location.

For the face (temple), the code is selected based on the 8 sq cm defect size. The code captures the entire procedure — excision, flap creation, transfer, and closure.

93. **A. 19 units** Base units (7) + Time units (165 minutes ÷ 15 minutes/unit = 11.0) + Modifying units (P3 = 1) = 19.0 total units. The calculation: 7 + 11 + 1 = 19.

94. **C. No; extreme age is defined as under 1 year or over 70 years — the patient at 68 does not qualify** Qualifying circumstances code 99100 applies to patients under 1 year or over 70 years. A 68-year-old patient does not meet the extreme age threshold. The patient's P3 physical status still adds 1 modifying unit, but the age-based qualifying circumstances code does not apply.

95. **D. The rituximab chemotherapy infusion** When rituximab is used as an antineoplastic agent for lymphoma, it is coded using chemotherapy administration codes. The infusion hierarchy places chemotherapy at the highest level — it is always the initial service. Hydration is the lowest priority. The IV push is reported as an add-on.

96. **B. As a secondary/sequential hydration service using the appropriate add-on code** Since the chemotherapy infusion is the initial service, the hydration cannot be reported as an initial service. The hydration is reported as a secondary service using the hydration add-on code. Only one initial infusion service per encounter is permitted.

97. **A. With the complete global package — no splitting modifiers** When a single surgeon provides all components — preoperative evaluation, the surgical procedure, and all postoperative care — the complete global package is reported without splitting modifiers.

98. **C. Modifier 79 (unrelated procedure during the postoperative period)** The skin abscess I&D is a completely unrelated procedure performed during the 90-day global period of the hernia repair. Modifier 79 is appended to the I&D code to indicate it is an unrelated procedure. Modifier 78 would be for a complication-related return to the OR. Modifier 24 is for unrelated E/M services, not procedures.

99. **D. One snare polypectomy code and one cold forceps biopsy polypectomy code with appropriate modifier** When polyps are removed using different techniques during the same colonoscopy, each technique is reported with its own code. Modifier 59 or XS is appended to the lesser procedure. The diagnostic colonoscopy is bundled into the surgical codes.

100. **B. Z12.11 (Encounter for screening for malignant neoplasm of colon)** The patient presented for a screening colonoscopy, making Z12.11 the first-listed diagnosis. The polyp codes are reported as secondary diagnoses. Medicare guidelines support the screening Z code as primary even when findings are identified and treated during the screening.