SIMULATION EXAM 7

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

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

1. A surgeon excises a 3.0 cm malignant lesion from the patient's anterior trunk with 0.5 cm margins. What is the excised diameter for code selection?

A. 3.0 cm

B. 4.0 cm

C. 3.5 cm

D. 5.0 cm

2. A patient has a 12.0 cm wound on the left thigh that requires complex repair with extensive undermining, debridement of devitalized tissue, and placement of retention sutures. The debridement is performed as a necessary part of the wound preparation before closure. How should the debridement be coded?

A. With a separate debridement code and modifier 59

B. With a separate debridement code and modifier 51

C. With a separate debridement code and modifier 25

D. It is not coded separately; debridement performed as part of wound preparation for complex repair is included in the complex repair code

3. A dermatologist performs Mohs micrographic surgery on a recurrent basal cell carcinoma of the ear. The procedure requires 4 stages: stage 1 with 3 blocks, stage 2 with 2 blocks, stage 3 with 4 blocks, and stage 4 with 1 block. How should the stages be coded?

A. 17311 × 4

B. 17311 × 1, 17312 × 2

C. 17311 × 1, 17312 × 3

D. 17311 × 1, 17312 × 3, 17315 × 1

4. A surgeon performs a free muscle flap transfer to reconstruct a large soft tissue defect of the lower leg following traumatic injury. Which section of CPT contains the free flap codes?

A. The integumentary system — adjacent tissue transfer and flap subsection

B. The musculoskeletal system

C. The cardiovascular system — vascular subsection

D. The medicine section

5. A patient has four wounds: a 2.0 cm simple repair on the right forearm, a 3.0 cm simple repair on the left forearm, a 1.5 cm intermediate repair on the right forearm, and a 4.0 cm intermediate repair on the left forearm. How should these be reported?

A. Four separate repair codes, one for each wound

B. One simple repair code for 5.0 cm and one intermediate repair code for 5.5 cm

C. One intermediate repair code for 10.5 cm combining all wounds

D. Two simple repair codes and two intermediate repair codes

6. A physician performs electrosurgical destruction of a 0.8 cm benign seborrheic keratosis on the patient's chest. Which destruction code range should be used?

A. Premalignant lesion destruction codes (17000–17004)

B. Malignant lesion destruction codes (17260–17286)

C. Mohs micrographic surgery codes (17311–17315)

D. Benign lesion destruction codes (17110–17111)

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

7. A patient undergoes arthroscopic removal of a loose body from the right knee. During the same session, a diagnostic arthroscopy is performed. How should the loose body removal and the diagnostic arthroscopy be coded?

A. Both the diagnostic arthroscopy code and the loose body removal code with modifier 59

B. The diagnostic arthroscopy code only; the loose body removal is included

C. The loose body removal code only; the diagnostic arthroscopy is bundled

D. Both codes without any modifier

8. A surgeon performs an open carpal tunnel release on the left wrist. Which type of nerve procedure is this?

A. Nerve decompression (release of an entrapped nerve)

B. Nerve repair (neurorrhaphy)

C. Nerve graft

D. Nerve block

9. A patient undergoes anterior lumbar interbody fusion (ALIF) at L5-S1. A vascular surgeon provides the surgical exposure of the anterior spine by mobilizing the great vessels. How should the vascular surgeon's exposure be coded?

A. With the fusion code and modifier 62

B. With the vascular surgeon's own fusion code

C. It is included in the fusion code; the exposure is not separately coded

D. With a separate anterior spine exposure code

10. An orthopedic surgeon performs a total shoulder arthroplasty (reverse total shoulder replacement) on a patient with a massive irreparable rotator cuff tear and glenohumeral arthritis. This is the patient's first shoulder replacement. Which type of arthroplasty code should be reported?

A. Revision total shoulder arthroplasty

B. Primary total shoulder replacement (reverse)

C. Partial shoulder arthroplasty (hemiarthroplasty)

D. Shoulder resurfacing

11. A surgeon applies a long leg cast to a patient's left lower extremity as the definitive treatment for a stable tibial fracture. The surgeon assumes the global fracture care package. How is the cast application coded?

A. With a separate cast application code and modifier 51

B. With a separate cast application code and the appropriate supply code

C. It is included in the fracture treatment code's global package; no separate cast code is reported

D. With a separate cast application code and modifier 59

12. A patient undergoes spinal cord stimulator electrode revision — the existing percutaneous electrode is repositioned under fluoroscopic guidance because it has migrated from its original position. How should this be coded?

A. With the electrode revision/repositioning code

B. With the initial electrode placement code

C. With the electrode removal code plus a new electrode placement code

D. With the pulse generator revision code

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

13. A surgeon performs a right thoracoscopic (VATS) wedge resection of a solitary pulmonary nodule. No conversion to open thoracotomy occurs. How should this be coded?

A. With the open thoracotomy wedge resection code

B. With the open thoracotomy code and modifier 52

C. With both the VATS code and the open thoracotomy code

D. With the VATS wedge resection code

14. A cardiologist replaces the pulse generator of an existing single-chamber ICD (implantable cardioverter-defibrillator). The existing lead is tested and left in place. How should this be coded?

A. A complete single-chamber ICD system insertion code

B. An ICD generator replacement code only

C. A generator removal code plus a generator insertion code

D. A generator replacement code plus a lead testing code

15. A patient undergoes insertion of a peripherally inserted central catheter (PICC line) in the right basilic vein. The patient is 35 years old. Which of the following correctly describes a PICC line?

A. A central venous catheter inserted through a peripheral vein in the arm and advanced until the tip reaches the central venous system (superior vena cava)

B. A catheter inserted directly into the subclavian vein

C. A tunneled catheter with a subcutaneous port

D. A dialysis catheter placed in the femoral vein

16. A surgeon performs an open splenectomy for idiopathic thrombocytopenic purpura (ITP). In which CPT subsection are splenectomy codes located?

A. Digestive system

B. Cardiovascular system

C. Hemic and lymphatic system

D. Endocrine system

17. A patient undergoes a diagnostic right heart catheterization with measurement of cardiac output and oxygen consumption. No left heart catheterization or angiography is performed. How should this be coded?

A. With a combined right and left heart catheterization code

B. With a right heart catheterization code plus a separate coronary angiography code

C. With a right heart catheterization code and modifier 52

D. With the right heart catheterization code for the specific measurements performed

18. A surgeon performs an open repair of a 6.5 cm infrarenal abdominal aortic aneurysm using a tube graft. Which vascular subsection contains the codes for aortic aneurysm repair?

A. The venous system subsection

B. The aorta and great vessel subsection

C. The coronary artery subsection

D. The peripheral vascular subsection

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

19. A patient undergoes a colonoscopy with removal of three polyps from three different locations. All three polyps are removed using the same technique — snare polypectomy with electrocautery. How should the polypectomies be coded?

A. One snare polypectomy code; multiple polyps removed with the same technique are reported with a single code

B. Three separate snare polypectomy codes, one for each polyp

C. One diagnostic colonoscopy code plus one polypectomy code

D. One snare polypectomy code with modifier 22

20. A surgeon performs a laparoscopic adjustable gastric band placement for morbid obesity. What does this procedure involve?

A. Removing 80% of the stomach

B. Creating a small gastric pouch and rerouting the intestine

C. Placing an inflatable silicone band around the upper portion of the stomach to create a small pouch

D. Stapling the stomach into a sleeve shape

21. A patient undergoes an EGD with removal of a foreign body (food impaction) from the esophagus. How should the diagnostic EGD be coded?

A. As a separate code with modifier 51

B. As a separate code with modifier 59

C. As a separate code with modifier 25

D. It is not reported separately; it is included in the surgical EGD foreign body removal code

22. A surgeon performs a laparoscopic inguinal hernia repair on a 55-year-old patient. The hernia is initial and reducible. Which approach is reflected in the CPT code?

A. Open approach only

B. Laparoscopic approach

C. Robotic approach

D. Both laparoscopic and open approaches use the same code

23. A patient undergoes a flexible sigmoidoscopy with snare polypectomy and a separate colonoscopy with biopsy on the same date by the same physician. The sigmoidoscopy is performed first, and the colonoscopy is performed later the same day after additional bowel preparation. Can both endoscopic procedures be reported?

A. Yes; the sigmoidoscopy and colonoscopy are distinct procedures performed during separate encounters on the same day and may both be reported with appropriate modifiers

B. No; only the colonoscopy may be reported because it is the more comprehensive procedure

C. No; only one endoscopic procedure per day is allowed

D. Yes, but only the diagnostic components of each procedure

24. A surgeon performs a liver biopsy using a percutaneous needle approach under ultrasound guidance. The ultrasound guidance code is NOT included in the biopsy code. How should the ultrasound guidance be coded?

A. It is included in the biopsy code; no separate code is needed

B. With modifier 26 on the biopsy code

C. With a separate liver biopsy code

D. With a separate ultrasound guidance code in addition to the biopsy code

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

25. A urologist performs a cystoscopy with transurethral resection of a 3.5 cm bladder tumor. The diagnostic cystoscopy is bundled. How is the bladder tumor resection code determined?

A. By the location of the tumor within the bladder

B. By the patient's age and gender

C. By the tumor size (small vs. large based on the 2.0 cm threshold) and whether the resection is initial or subsequent

D. By the type of anesthesia used

26. A patient undergoes ureteroscopy with laser lithotripsy for a right ureteral stone. The surgeon also performs a cystoscopy as part of the approach. How should the cystoscopy be coded?

A. As a separate code with modifier 59

B. It is not reported separately; it is included in the ureteroscopy code

C. As a separate code with modifier 51

D. As a separate code with modifier 25

27. A physician provides antepartum care for 6 visits before the patient transfers to another provider for delivery. How should the antepartum care be reported?

A. With individual E/M codes for each of the 6 visits (since fewer than the threshold for the antepartum-only code)

B. With the antepartum-only code

C. With the global vaginal delivery code and modifier 52

D. With the antepartum-only code and modifier 52

28. A surgeon performs a laparoscopic myomectomy to remove uterine fibroids. What does a myomectomy accomplish?

A. Removal of the entire uterus

B. Removal of the uterus and cervix

C. Removal of the uterus, tubes, and ovaries

D. Removal of fibroids (myomas) while preserving the uterus

29. A patient undergoes a bilateral orchiectomy for prostate cancer. The testes are removed through a scrotal approach. Which body system section contains the orchiectomy codes?

A. Urinary system

B. Endocrine system

C. Male genital system

D. Hemic and lymphatic system

30. A surgeon performs a left adrenalectomy using a laparoscopic transabdominal approach. How is the laparoscopic approach reflected in the code?

A. CPT provides separate codes for laparoscopic versus open adrenalectomy

B. The laparoscopic code is the same as the open code with modifier 52

C. A separate laparoscopic approach code is reported in addition to the adrenalectomy

D. All adrenalectomies use the same code regardless of approach

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

31. A neurosurgeon performs a cervical laminectomy with foraminotomy at C5-C6 and C6-C7 for bilateral foraminal stenosis. The foraminotomy is performed bilaterally at both levels. How does the bilateral nature of the procedure affect coding?

A. Bilateral procedures cannot be performed on the spine

B. The foraminotomy codes are reported bilaterally with modifier 50 or RT/LT modifiers at each level

C. One code covers both sides at each level

D. Modifier 22 is appended for the bilateral work

32. An ophthalmologist injects triamcinolone acetonide into the sub-Tenon space (periocular injection) of the right eye for treatment of macular edema. How is this coded?

A. With the intravitreal injection code (67028)

B. With a retinal photocoagulation code

C. With a glaucoma procedure code

D. With the periocular injection code (67515)

33. A pain management physician performs radiofrequency ablation of the right L3, L4, and L5 medial branch nerves under fluoroscopic guidance. The ablation codes include imaging guidance. How should the three levels be coded?

A. Three separate ablation codes, one for each nerve

B. One ablation code for all three levels combined

C. A primary ablation code for the first nerve plus add-on codes for each additional nerve

D. One ablation code with modifier 22

34. A neurosurgeon performs a ventriculoperitoneal shunt creation for a patient with newly diagnosed hydrocephalus. This is the initial shunt placement. Which components are included in the VP shunt system?

A. A ventricular catheter, a valve mechanism, and a peritoneal (distal) catheter

B. Only a ventricular catheter and a valve

C. Only a peritoneal catheter and an external drainage bag

D. A spinal cord electrode and a pulse generator

35. A patient undergoes a modified radical mastoidectomy for cholesteatoma. What distinguishes a modified radical mastoidectomy from a simple mastoidectomy?

A. A modified radical removes only the mastoid air cells

B. A simple mastoidectomy always includes tympanoplasty

C. There is no difference; the terms are interchangeable

D. A modified radical removes the mastoid air cells and the posterior ear canal wall, creating an open cavity; a simple mastoidectomy removes the air cells while preserving the canal wall

36. An ophthalmologist performs bilateral intravitreal injections of an anti-VEGF agent — one injection in each eye during the same visit. How should the bilateral procedure be reported?

A. With a single intravitreal injection code and no laterality modifier

B. With the intravitreal injection code reported for each eye using modifiers RT and LT or modifier 50

C. With the intravitreal injection code and modifier 22

D. With two separate E/M codes, one for each eye

Evaluation and Management (Questions 37–42)

37. An established patient presents to the office with three chronic conditions, all stable, requiring ongoing medication management. The physician reviews lab results and adjusts one medication. No new diagnostic tests are ordered. What level of MDM is supported?

A. Straightforward

B. High

C. Moderate

D. Low

38. A physician sees a patient in the emergency department. The patient is evaluated, treated, and released — not admitted to the hospital. Which E/M code set should the physician use?

A. Emergency department visit codes (99281–99285)

B. Observation care codes (99218–99220)

C. Initial hospital care codes (99221–99223)

D. Office visit codes (99212–99215)

39. A physician provides care coordination and management services for a patient with multiple chronic conditions. The physician spends 45 minutes in a calendar month performing care coordination activities including review of medical records, telephone communication with other providers, and medication management. Which code category covers this service?

A. Consultation codes

B. Hospital discharge management codes

C. Preventive medicine codes

D. Chronic care management codes (99490–99491)

40. A physician sees a new patient in the office. The visit involves a straightforward medical decision — one self-limited problem with no data review and minimal risk. Using MDM, which new patient code is supported?

A. 99205 (new patient, high MDM)

B. 99202 (new patient, straightforward MDM)

C. 99204 (new patient, moderate MDM)

D. 99203 (new patient, low MDM)

41. A physician provides an initial hospital care service for a newly admitted patient. The MDM involves high complexity with multiple acute problems, extensive data review, and high-risk management. Which code should be reported?

A. 99221 (initial hospital care, straightforward or low MDM)

B. 99222 (initial hospital care, moderate MDM)

C. 99223 (initial hospital care, high MDM)

D. 99285 (ED visit, high MDM)

42. Under the current E/M guidelines for office visits, the total time includes which of the following activities?

A. All physician activities on the date of the encounter — pre-visit chart review, face-to-face time, and post-visit documentation, test ordering, and care coordination

B. Only face-to-face time with the patient

C. Only time spent documenting the visit

D. Only time spent on medical decision-making

Anesthesia (Questions 43–46)

43. An anesthesiologist provides general anesthesia for a laparoscopic bariatric surgery on a 42-year-old patient with morbid obesity, Type 2 diabetes, and severe obstructive sleep apnea (P3). Total anesthesia time is 180 minutes. The payer uses 15-minute time units and assigns 1 modifying unit for P3. Base units are 7. What is the total unit calculation?

A. 19 units

B. 20 units

C. 21 units

D. 18 units

44. A surgeon provides their own anesthesia (local anesthesia with sedation) during an office-based minor procedure. How should the anesthesia be coded?

A. With the standard anesthesia code for the procedure

B. With moderate sedation codes (99151–99157)

C. With the anesthesia code and modifier QS

D. Local anesthesia administered by the surgeon is included in the surgical procedure code and is not separately reported

45. Which of the following correctly describes the role of qualifying circumstances codes in anesthesia coding?

A. They are add-on codes that identify conditions that increase the complexity and risk of the anesthetic, such as extreme age, emergency conditions, controlled hypotension, or hypothermia

B. They replace the base unit value for the procedure

C. They determine the physical status modifier

D. They are reported instead of the primary anesthesia code

46. An anesthesiologist provides anesthesia for a 9-month-old infant undergoing repair of a cleft palate. Which qualifying circumstances code applies for the infant's age?

A. 99140 (emergency conditions)

B. 99135 (controlled hypotension)

C. 99100 (extreme age — under 1 year or over 70 years)

D. 99116 (total body hypothermia)

Radiology (Questions 47–52)

47. A patient undergoes an X-ray of the left hip — 2 views. The X-ray is performed in the physician's office using practice-owned equipment. The physician interprets the images. Which modifier should be appended?

A. Modifier 26

B. No modifier; the global service is reported

C. Modifier TC

D. Modifier 59

48. A patient undergoes MRI of the right knee without contrast at a hospital outpatient imaging center. The MRI is interpreted by a radiologist employed by a separate radiology group. How should the radiologist bill?

A. With the global MRI code

B. With the MRI code and modifier TC

C. With a separate interpretation-only code

D. With the MRI code and modifier 26

49. A patient undergoes a DEXA scan of the lumbar spine and bilateral hips. The physician who ordered the study also interprets it. The study is performed in the physician's office. Which modifier should be appended?

A. No modifier; the global service is reported

B. Modifier 26

C. Modifier TC

D. Modifier 50

50. In radiation oncology, what does the treatment delivery code for IMRT (intensity-modulated radiation therapy) represent?

A. The planning and design of the radiation fields

B. The mathematical calculation of the dose distribution

C. The actual administration of the precisely shaped radiation beams to the patient

D. The physician's evaluation of the patient during treatment

51. A patient undergoes a nuclear medicine thyroid uptake and scan using radioactive iodine. Which of the following describes the mechanism of this study?

A. External X-rays are used to image the thyroid

B. Ultrasound waves produce images of the thyroid

C. Magnetic fields create images of the thyroid

D. The patient ingests radioactive iodine, which is taken up by the thyroid, and a gamma camera detects the emitted radiation to create images

52. A CT of the abdomen is performed with intravenous contrast only — no oral contrast is given. How should this be coded?

A. CT abdomen without contrast

B. CT abdomen with contrast

C. CT abdomen without contrast followed by with contrast

D. CT abdomen with contrast and modifier 52

Pathology and Laboratory (Questions 53–58)

53. A physician orders a CBC with automated differential (85025), a comprehensive metabolic panel (80053), and a lipid panel (80061) on the same specimen. How should these be reported?

A. All three codes — 85025, 80053, and 80061 — since none share overlapping components

B. Only the CMP code; the CBC and lipid panel are bundled

C. Two codes — the CMP and the CBC; the lipid panel is bundled into the CMP

D. Only the CBC code; the panels are included

54. A pathologist examines a colon resection specimen from a patient with colon cancer. At which level of surgical pathology is a colon resection classified?

A. Level III (88304)

B. Level IV (88305)

C. Level V (88307)

D. Level VI (88309)

55. A laboratory performs definitive drug testing for opiates identifying 2 specific analytes. Which definitive drug testing code should be reported?

A. 80307 (presumptive, instrument chemistry analyzer)

B. 80305 (presumptive, direct optical observation)

C. One code per date of service regardless of analytes

D. The definitive opiate code specifying 1 or 2 analytes

56. A patient undergoes a Pap smear. The specimen is processed using automated thin-layer preparation (liquid-based cytology). Which CPT section contains the code for processing and screening the Pap smear?

A. Medicine section

B. Pathology and Laboratory section

C. Surgery section

D. Radiology section

57. A physician performs a rapid strep test (Group A Streptococcus antigen detection) in the office. The test is CLIA-waived. Which modifier should be appended to the CPT code?

A. Modifier QW

B. Modifier 26

C. Modifier TC

D. Modifier 91

58. Special stains are performed on a liver biopsy specimen. The pathologist orders trichrome and iron stains. How should these be coded?

A. One special stain code for both stains combined

B. One special stain code with modifier 22

C. Two units of the special stain code — one per stain

D. With a pathology consultation code

Medicine (Questions 59–64)

59. A patient receives IV chemotherapy as follows: a 90-minute IV infusion of oxaliplatin (chemotherapy agent), followed by an IV push of leucovorin (non-chemotherapy supportive agent), followed by a 46-hour continuous IV infusion of 5-fluorouracil (chemotherapy agent) via an ambulatory pump. How should the oxaliplatin infusion be coded?

A. With the hydration code (96360)

B. With the therapeutic drug infusion code (96365)

C. With one unit of 96413 only

D. With the initial chemotherapy infusion code (96413) for the first hour plus the additional hour add-on code (96415) for the additional 30 minutes

60. An adult patient receives a flu shot (single influenza vaccine injection) during an office visit. No physician counseling about the vaccine is provided. How should the administration be coded?

A. 90471 × 1 (adult injection-based code, first vaccine)

B. 90460 × 1 (pediatric component-based code)

C. No administration code; it is included in the vaccine product code

D. 90472 × 1 (additional vaccine injection)

61. A patient undergoes a 24-hour ambulatory ECG (Holter monitor) recording. The cardiologist reviews the recording, performs the scanning analysis, and generates a report. Which E/M subsection contains the Holter monitor codes?

A. Radiology section

B. Medicine section — cardiovascular diagnostic subsection

C. Pathology and Laboratory section

D. Surgery section — cardiovascular subsection

62. A therapist provides the following services during a physical therapy session: hot packs (97010, supervised modality), 20 minutes of therapeutic exercise (97110), and 10 minutes of gait training (97116). The hot packs are a supervised modality. How many total billable units are reported?

A. 4 units

B. 2 units of timed codes only; the hot pack is not reportable

C. 2 timed units plus the supervised modality

D. 3 units — 1 unit of 97010, 1 unit of 97110, and 1 unit of 97116

63. A psychiatrist provides 55 minutes of psychotherapy to a patient. No E/M service is provided. Which psychotherapy code should be reported?

A. 90832 (30 minutes)

B. 90836 (45-minute add-on)

C. 90837 (60 minutes)

D. 90834 (45 minutes)

64. An allergist performs percutaneous (skin prick) allergy testing using 50 allergen extracts and also performs intradermal testing using 10 additional allergen extracts during the same session. How should the testing be coded?

A. 50 units of the percutaneous testing code (95004) plus 10 units of the intradermal testing code

B. 60 units of the percutaneous testing code

C. One unit of each testing code regardless of the number of allergens

D. A panel code for comprehensive allergy testing

Medical Terminology (Questions 65–68)

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

A. Inflammation

B. Blood condition

C. Surgical removal

D. Pain

66. Which combining form refers to the lung?

A. Gastr/o

B. Cardi/o

C. Hepat/o

D. Pneumon/o or pulmon/o

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

A. Many or much

B. One or single

C. Half

D. Without

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

A. Inflammation of the colon

B. Inflammation of the stomach

C. Inflammation of the gallbladder

D. Inflammation of the liver

Anatomy (Questions 69–72)

69. The thymus gland is most active during which period of life and is part of which body system?

A. Most active in old age; part of the endocrine system

B. Most active in childhood and adolescence; part of the immune/lymphatic system

C. Most active in adulthood; part of the digestive system

D. Most active during fetal development only; part of the nervous system

70. Which structure separates the right and left ventricles of the heart?

A. Interatrial septum

B. Atrioventricular septum

C. Pericardium

D. Interventricular septum

71. The ureter connects which two structures in the urinary system?

A. The bladder and the urethra

B. The kidney and the bladder

C. The kidney (renal pelvis) and the urinary bladder

D. The bladder and the outside of the body

72. The diaphragm is the primary muscle of which physiological function?

A. Respiration (breathing)

B. Cardiac contraction

C. Digestion

D. Urination

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

73. A patient presents with acute appendicitis with perforation and peritoneal abscess. ICD-10-CM provides a single code that captures all of these findings. What type of code is this?

A. A manifestation code

B. An external cause code

C. A Z code

D. A combination code

74. A patient is being treated for a right wrist fracture that occurred 3 weeks ago. The fracture is healing normally and the patient is in a cast. Which 7th character should be used?

A. A (initial encounter)

B. D (subsequent encounter)

C. S (sequela)

D. G (subsequent encounter for fracture with delayed healing)

75. A newborn is diagnosed with congenital heart disease — specifically, a ventricular septal defect (VSD). Which ICD-10-CM chapter contains congenital anomaly codes?

A. Chapter 9 (Diseases of the circulatory system)

B. Chapter 16 (Certain conditions originating in the perinatal period)

C. Chapter 17 (Congenital malformations, deformations, and chromosomal abnormalities)

D. Chapter 21 (Factors influencing health status)

76. A patient has COPD with acute bronchitis. Under ICD-10-CM, which code should be reported?

A. J44.0 (COPD with acute lower respiratory infection) plus the appropriate acute bronchitis code

B. Only the COPD code (J44.9)

C. Only the acute bronchitis code (J20.9)

D. J44.1 (COPD with acute exacerbation)

77. A coder is assigning a diagnosis for a patient who had a previous left total knee replacement and now presents with mechanical loosening of the prosthesis. Which ICD-10-CM code category covers mechanical complications of joint prostheses?

A. M17 (Osteoarthritis of knee)

B. Z96 (Presence of artificial joint)

C. M25 (Other joint disorders)

D. T84 (Complications of internal orthopedic prosthetic devices, implants, and grafts)

HCPCS Level II (Questions 78–80)

78. A patient requires continuous positive airway pressure (CPAP) equipment for treatment of obstructive sleep apnea. Which HCPCS Level II code range covers CPAP and other durable medical equipment?

A. J0000–J9999

B. E0100–E9999

C. L0000–L9999

D. A0000–A0999

79. A Medicare beneficiary receives a service that is a statutory exclusion — a service Medicare never covers. No ABN is required for statutory exclusions, but the provider issues a voluntary notice. Which modifier should be appended?

A. Modifier GA

B. Modifier GZ

C. Modifier GX

D. Modifier QW

80. A patient is transported by air ambulance (rotary wing/helicopter) from an accident scene to a trauma center. Which HCPCS Level II code range covers air ambulance transport?

A. A0000–A0999 (ambulance transport codes)

B. E0100–E9999 (DME codes)

C. J0000–J9999 (drug codes)

D. L0000–L9999 (orthotic/prosthetic codes)

Coding Guidelines (Questions 81–87)

81. A surgeon performs a procedure that required significantly less work than typically expected for the code. No other more specific code accurately describes the procedure. Which modifier should be appended?

A. Modifier 22 (increased procedural services)

B. Modifier 53 (discontinued procedure)

C. Modifier 59 (distinct procedural service)

D. Modifier 52 (reduced services)

82. A surgeon performs two related but distinct procedures during the same operative session. Both procedures have their own CPT codes. The primary procedure has a higher RVU. How should the second procedure be coded?

A. With modifier 59

B. With modifier 51 (multiple procedures)

C. With modifier 25

D. With modifier 22

83. A patient undergoes a diagnostic cystoscopy. During the procedure, the urologist identifies a bladder tumor and performs a transurethral resection. The cystoscopy was the planned procedure and the resection was an unplanned additional service. How should the diagnostic cystoscopy be coded?

A. As a separate code with modifier 59

B. As a separate code with modifier 51

C. It is not reported separately; the diagnostic cystoscopy is bundled into the surgical cystoscopy

D. As a separate code with modifier 25

84. Under Medicare, which of the following services is included in the 90-day global surgical package and is NOT separately reportable?

A. Routine postoperative follow-up visits

B. An unrelated E/M service with modifier 24

C. An unplanned return to the OR for a complication (modifier 78)

D. Treatment of a completely unrelated condition (modifier 79)

85. A surgeon performs a bilateral procedure. The CPT code describes a unilateral procedure. The payer requires modifier 50 for bilateral procedures. If the surgeon reports the code with modifier 50, how does this typically affect reimbursement?

A. The code is paid at 100% for one side only

B. The code is paid at 200% of the single-unit rate

C. The code is paid at 100% of the single-unit rate with no additional payment

D. The code is typically paid at 150% of the single-unit rate (100% for the first side + 50% for the second)

86. In CPT, what does the semicolon (;) in a code description indicate?

A. The code is an add-on code

B. The common portion of the code description shared with indented codes that follow

C. The code has been revised from the prior year

D. The code is modifier 51 exempt

87. A physician provides a telehealth visit to an established patient. The visit involves 25 minutes of total time. Which modifier indicates the service was provided via synchronous real-time audio-video telecommunication?

A. Modifier 95 (synchronous telemedicine service)

B. Modifier 59

C. Modifier 25

D. Modifier GT

Compliance and Regulatory (Questions 88–90)

88. Under the RBRVS payment formula, which component adjusts each RVU for geographic variations in the cost of practicing medicine?

A. The conversion factor

B. The base units

C. The modifying units

D. The Geographic Practice Cost Indices (GPCIs)

89. An external audit reveals that a medical practice has been systematically billing for services not rendered. Under the False Claims Act, which of the following penalties may apply?

A. Only a written warning letter

B. Only loss of the provider's medical license

C. Civil monetary penalties of up to three times the false claim amount plus per-claim penalties, and potential exclusion from federal healthcare programs

D. Only repayment of the overpaid amount with no additional penalty

90. What is the purpose of the CMS-1500 claim form in medical billing?

A. It is the standard form used to submit professional (physician) claims to Medicare and most commercial payers

B. It is used exclusively for inpatient hospital billing

C. It is used only for dental claims

D. It is used only for prescription drug claims

Cases — Integrated Coding Scenarios (Questions 91–100)

Case 1 (Questions 91–92):

A 50-year-old patient undergoes excision of a 1.5 cm benign lipoma from the subcutaneous tissue of the upper back. The wound is closed with intermediate layered closure (subcutaneous tissue and skin). The specimen is sent to pathology.

91. Which code range should be used for the excision of the subcutaneous lipoma?

A. Skin excision codes (11400–11471)

B. Soft tissue tumor excision codes (subcutaneous) in the musculoskeletal section

C. Skin biopsy codes (11102–11107)

D. Shave removal codes (11300–11313)

92. The intermediate layered closure is performed after excision of the lipoma. Should the intermediate repair be coded separately?

A. No; all closures are included in excision codes

B. No; intermediate repair is included in soft tissue tumor excision codes

C. Yes, but only with modifier 22

D. Yes; intermediate and complex closures may be reported separately when not included in the excision code

Case 2 (Questions 93–94):

A 60-year-old patient undergoes a right carotid endarterectomy for symptomatic high-grade carotid stenosis. The surgeon provides the preoperative evaluation, performs the surgery, and will provide all postoperative care.

93. The surgeon provides all components of care (pre-op, surgery, post-op). How should this be reported?

A. With the endarterectomy code and modifier 54

B. With the endarterectomy code and modifier 55

C. With the endarterectomy code and no splitting modifier — complete global package

D. With separate E/M codes for each pre-op and post-op visit plus the surgical code

94. The patient's diagnosis is symptomatic right carotid artery stenosis — specifically, 80% stenosis with prior transient ischemic attack (TIA). Which is the most appropriate primary diagnosis?

A. I65.21 (Occlusion and stenosis of right carotid artery) or the appropriate code reflecting the documented stenosis with cerebrovascular symptoms

B. I63.9 (Cerebral infarction, unspecified)

C. G45.9 (Transient cerebral ischemic attack, unspecified)

D. I10 (Essential hypertension)

Case 3 (Questions 95–96):

A 45-year-old patient receives IV infusion of rituximab (non-antineoplastic biologic agent) for rheumatoid arthritis. The infusion lasts 3 hours. During the same encounter, the patient also receives 30 minutes of IV hydration with normal saline before the rituximab infusion begins.

95. Which code range should be used for the rituximab infusion?

A. Chemotherapy administration codes (96413–96417)

B. Therapeutic drug infusion codes (96365–96368)

C. Hydration codes (96360–96361)

D. Moderate sedation codes (99151–99157)

96. The hydration was provided before the rituximab infusion. According to the infusion hierarchy, which service is reported as the initial service?

A. The hydration, because it was administered first chronologically

B. The hydration, because it was the least complex service

C. Both are reported as initial services

D. The rituximab therapeutic infusion, because therapeutic infusion outranks hydration in the hierarchy

Case 4 (Questions 97–98)

A 7-year-old patient presents for evaluation of recurrent ear infections. The otolaryngologist performs bilateral tympanostomy tube placement under general anesthesia.

97. How should the bilateral tympanostomy be coded?

A. With two separate tympanostomy codes, one for each ear, without modifiers

B. With one tympanostomy code and modifier 22

C. With the tympanostomy code (general anesthesia) reported bilaterally using modifier 50 or RT/LT modifiers

D. With one tympanostomy code and no modifier; the code is inherently bilateral

98. The myringotomy (incision of the tympanic membrane) is performed as part of the tube placement. Should the myringotomy be coded separately?

A. No; the myringotomy is included in the tympanostomy tube insertion code

B. Yes; the myringotomy is always coded separately

C. Yes, with modifier 59

D. Yes, with modifier 51

Case 5 (Questions 99–100):

A patient presents with a displaced fracture of the left distal radius (Colles fracture). The orthopedic surgeon performs closed reduction with manipulation under conscious sedation and applies a short arm cast. The surgeon will provide all follow-up care through healing.

99. The surgeon provides complete fracture care. Are the follow-up visits and cast changes coded separately?

A. Yes; each follow-up visit requires a separate E/M code

B. Yes; cast changes are always separately reportable

C. Yes, with modifier 24 on each follow-up visit

D. No; follow-up visits, cast application, cast changes, and removal are included in the fracture treatment code's global package

100. The patient develops an unrelated urinary tract infection 3 weeks after the fracture treatment. The surgeon evaluates and treats the UTI during a postoperative visit. How should the UTI evaluation be coded?

A. It cannot be coded during the fracture global period

B. With an E/M code for the UTI evaluation and modifier 24 (unrelated E/M during the postoperative period)

C. With the fracture follow-up code

D. With an E/M code and modifier 25

SIMULATION EXAM 7 — ANSWER KEY WITH EXPLANATIONS

10,000 Series — Integumentary System

1. **B. 4.0 cm** The excised diameter is calculated as lesion diameter plus margins on both sides: 3.0 cm + (0.5 cm × 2) = 4.0 cm. The margin is doubled because normal tissue is removed circumferentially around the entire lesion. This 4.0 cm excised diameter determines the correct code within the malignant excision range for the trunk anatomical grouping.

2. **D. It is not coded separately; debridement performed as part of wound preparation for complex repair is included in the complex repair code** When debridement is performed as a necessary part of wound preparation before complex closure, it is included in the complex repair code. The complex repair code inherently accounts for the additional work of wound bed preparation including debridement of devitalized tissue, undermining, and retention sutures. Debridement is only separately reportable when performed as a distinct, standalone service unrelated to wound closure preparation.

3. **C. 17311 × 1, 17312 × 3** Code 17311 covers the first stage of Mohs surgery (up to 5 tissue blocks — stage 1 had 3 blocks, within the limit). Code 17312 is reported for each additional stage: stages 2, 3, and 4 = 3 units. No single stage exceeded 5 tissue blocks, so code 17315 (each additional block beyond 5 in a single stage) is not reported. Four stages require one primary code plus three add-on codes.

4. **A. The integumentary system — adjacent tissue transfer and flap subsection** Free muscle flap transfer codes are located in the integumentary system section of CPT under the adjacent tissue transfer and flap subsection. Although the flap involves muscle tissue, CPT categorizes all flap procedures — including muscle flaps, fasciocutaneous flaps, and microvascular free tissue transfers — in the integumentary system rather than the musculoskeletal system.

5. **B. One simple repair code for 5.0 cm and one intermediate repair code for 5.5 cm** Wounds of the same repair classification in the same anatomical grouping are added together. The two simple repairs on the forearms (2.0 + 3.0 = 5.0 cm) are combined into one simple repair code. The two intermediate repairs on the forearms (1.5 + 4.0 = 5.5 cm) are combined into one intermediate repair code. Different classifications are reported separately even when in the same anatomical grouping.

6. **D. Benign lesion destruction codes (17110–17111)** Electrosurgical destruction of a benign lesion uses the benign lesion destruction codes (17110 for the first lesion, 17111 for additional lesions 2–14). Seborrheic keratoses are benign lesions. Premalignant codes (17000–17004) are for actinic

keratoses and other premalignant conditions. Malignant codes are for confirmed malignancies. Mohs surgery is a specialized excision technique, not simple destruction.

20,000 Series — Musculoskeletal System

7. **C. The loose body removal code only; the diagnostic arthroscopy is bundled** Diagnostic arthroscopy is always bundled into surgical arthroscopy when both are performed on the same joint during the same session. The loose body removal is a surgical arthroscopic procedure — the diagnostic examination that preceded it is included and is not reported separately. Reporting both codes constitutes unbundling.

8. **A. Nerve decompression (release of an entrapped nerve)** Open carpal tunnel release is a nerve decompression procedure — the transverse carpal ligament is divided to release pressure on the median nerve as it passes through the carpal tunnel. This is classified as a nerve decompression, not a nerve repair (reconnecting severed nerve ends), nerve graft (bridging a nerve gap), or nerve block (temporary injection).

9. **D. With a separate anterior spine exposure code** When a vascular surgeon provides the surgical exposure of the anterior spine by mobilizing the great vessels for an ALIF performed by another surgeon, the exposure is coded separately using the appropriate anterior spine exposure code. The vascular surgeon reports the exposure code, and the spine surgeon reports the fusion code. These are distinct surgical services provided by different surgeons.

10. **B. Primary total shoulder replacement (reverse)** This is the patient's first shoulder replacement, making it a primary arthroplasty. CPT provides specific codes for reverse total shoulder replacement, which is a distinct prosthetic design used when the rotator cuff is irreparable. Revision codes would be used for replacing a previously implanted prosthesis. Hemiarthroplasty replaces only the humeral component.

11. **C. It is included in the fracture treatment code's global package; no separate cast code is reported** When a cast is applied as the definitive treatment by the physician who assumes the global fracture care package, the casting is included in the fracture treatment code. Cast application, cast changes, and routine follow-up visits are all bundled into the global package. A separate cast application code is only reported when casting is performed independently of fracture treatment or by a different provider.

12. **A. With the electrode revision/repositioning code** When an existing neurostimulator electrode migrates and requires repositioning, the electrode revision code (63663 for percutaneous electrode) is reported. This is different from an initial electrode placement (63650) and different from electrode removal (63661). The revision code captures the specific work of repositioning an existing electrode that has migrated from its intended position.

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

13. **D. With the VATS wedge resection code** The procedure was completed thoracoscopically (VATS) without conversion to open thoracotomy. The correct code is the VATS wedge resection code. CPT provides separate codes for VATS and open thoracotomy approaches. When a VATS procedure is completed without conversion, only the VATS code is reported. The open code would only be used if the procedure were converted.

14. **B. An ICD generator replacement code only** When the ICD pulse generator is replaced and the existing lead is tested and left in place, only the generator replacement code is reported. No lead codes are needed because the lead was not inserted, repositioned, or removed. Lead testing performed during generator replacement is included in the generator replacement procedure and is not separately coded.

15. **A. A central venous catheter inserted through a peripheral vein in the arm and advanced until the tip reaches the central venous system (superior vena cava)** A PICC line is inserted through a peripheral vein (typically the basilic or cephalic vein in the upper arm) and advanced until the catheter tip reaches the central venous system at the junction of the superior vena cava and right atrium. Despite its peripheral insertion point, the tip resides in the central venous system, making it a central venous access device. PICC lines have their own specific CPT codes.

16. **C. Hemic and lymphatic system** Splenectomy codes are located in the hemic and lymphatic system subsection of CPT. The spleen is the largest lymphoid organ and functions as part of the blood and immune systems — filtering blood, removing old red blood cells, and producing lymphocytes. Despite its abdominal location, it is not classified under the digestive system.

17. **D. With the right heart catheterization code for the specific measurements performed** A diagnostic right heart catheterization with cardiac output and oxygen consumption measurements is coded with the appropriate right heart catheterization code. No left heart catheterization or angiography codes are reported because those procedures were not performed. The code captures the specific hemodynamic measurements obtained during the right heart study.

18. **B. The aorta and great vessel subsection** Codes for aortic aneurysm repair — both open and endovascular — are located in the aorta and great vessel subsection of the cardiovascular surgery section. This subsection covers procedures on the aorta (thoracic and abdominal), the great vessels (innominate, carotid, subclavian), and the pulmonary arteries.

40,000 Series — Digestive System

19. **A. One snare polypectomy code; multiple polyps removed with the same technique are reported with a single code** When multiple polyps are removed using the same technique during the same colonoscopy, a single code for that technique is reported — regardless of the number of polyps or their locations. The snare polypectomy code captures all polyps removed by snare during

the session. If different techniques were used (snare for some, biopsy forceps for others), each technique would be reported separately.

20. **C. Placing an inflatable silicone band around the upper portion of the stomach to create a small pouch** A laparoscopic adjustable gastric band involves placing an inflatable silicone band around the upper portion of the stomach, creating a small proximal pouch that restricts food intake. The band can be adjusted (tightened or loosened) through a subcutaneous port by adding or removing saline. This is a purely restrictive procedure — no intestinal rerouting or stomach removal is performed.

21. **D. It is not reported separately; it is included in the surgical EGD foreign body removal code** When a surgical procedure (foreign body removal) is performed during an EGD, the diagnostic examination is bundled into the surgical code. Only the surgical EGD code for foreign body removal is reported. The endoscopic hierarchy rule applies — the diagnostic component is always included in the surgical code.

22. **B. Laparoscopic approach** CPT provides separate codes for laparoscopic and open inguinal hernia repair. The laparoscopic approach is reflected in a distinct CPT code from the open approach. The code selection also depends on whether the hernia is initial or recurrent and whether it is reducible, incarcerated, or strangulated. Robotic-assisted laparoscopic hernia repair uses the laparoscopic code.

23. **A. Yes; the sigmoidoscopy and colonoscopy are distinct procedures performed during separate encounters on the same day and may both be reported with appropriate modifiers** When a sigmoidoscopy and a colonoscopy are performed as separate procedures during separate encounters on the same day (different time points with different clinical indications), both may be reported with appropriate modifiers such as modifier 59 or XE (separate encounter). The key is that they were performed at different times as distinct procedures, not as a single continuous examination.

24. **D. With a separate ultrasound guidance code in addition to the biopsy code** When the biopsy code does NOT include imaging guidance and ultrasound guidance is used, the guidance code is reported separately. The coder must always check the procedure code description and parenthetical notes to determine whether guidance is included. In this case, since guidance is not included, the separate ultrasound guidance code is appropriate.

50,000 Series — Urinary, Reproductive, and Endocrine

25. **C. By the tumor size (small vs. large based on the 2.0 cm threshold) and whether the resection is initial or subsequent** Transurethral bladder tumor resection codes are determined by the tumor size — small (2.0 cm or less) versus large (greater than 2.0 cm) — and whether the resection is the initial treatment or a subsequent resection. A 3.5 cm tumor exceeds the 2.0 cm threshold and is classified as a large tumor. The diagnostic cystoscopy is bundled into the surgical code.

26. **B. It is not reported separately; it is included in the ureteroscopy code** Cystoscopy performed as the approach to reach the ureter for ureteroscopy is included in the ureteroscopy code. The cystoscope is passed through the urethra and bladder to access the ureteral orifice before the ureteroscope is advanced into the ureter. This access step is inherent to the ureteroscopy and is not separately reportable.

27. **A. With individual E/M codes for each of the 6 visits (since fewer than the threshold for the antepartum-only code)** When fewer than the designated number of antepartum visits are provided (CPT defines the antepartum-only code as covering a specific number of visits, typically 7 or more for the package), individual E/M codes are reported for each visit. Six visits fall below the threshold for the antepartum care-only package code, so each visit is coded individually.

28. **D. Removal of fibroids (myomas) while preserving the uterus** A myomectomy removes uterine fibroids (myomas) while preserving the uterus. This procedure is chosen for patients who wish to maintain their fertility or prefer to keep their uterus. A hysterectomy removes the entire uterus. The distinction between myomectomy (fibroid removal with uterine preservation) and hysterectomy (uterine removal) is fundamental to CPT code selection.

29. **C. Male genital system** Orchiectomy codes are located in the male genital system subsection of the CPT surgery section. The testes are part of the male reproductive system, and procedures on the testes — including orchiectomy, orchiopexy, and testicular biopsy — are coded under the male genital system, not the urinary or endocrine system.

30. **A. CPT provides separate codes for laparoscopic versus open adrenalectomy** CPT provides distinct codes for laparoscopic adrenalectomy (60650) and open adrenalectomy (60540). The surgical approach (laparoscopic vs. open) determines the code. This follows the same pattern seen throughout CPT where laparoscopic and open versions of the same procedure have separate codes reflecting different levels of surgical work and resource utilization.

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

31. **B. The foraminotomy codes are reported bilaterally with modifier 50 or RT/LT modifiers at each level** Spinal foraminotomy codes are unilateral by definition. When performed bilaterally, modifier 50 or RT/LT modifiers are used to indicate the bilateral nature at each level. Two levels performed bilaterally would require the primary code plus add-on code, each reported bilaterally. The bilateral modifier ensures accurate reimbursement for the additional surgical work.

32. **D. With the periocular injection code (67515)** A sub-Tenon injection (periocular injection) is coded with 67515. This is different from an intravitreal injection (67028), which delivers medication inside the vitreous cavity of the eye. The sub-Tenon space is outside the globe but adjacent to the sclera. The injection route determines the code — periocular versus intravitreal are distinct procedures with different codes.

33. **C. A primary ablation code for the first nerve plus add-on codes for each additional nerve** Radiofrequency ablation of medial branch nerves uses a primary code for the first facet joint nerve destroyed and an add-on code for each additional nerve in the same spinal region. Three lumbar medial branch nerves require one primary code plus two add-on codes. Since the codes include imaging guidance, no separate fluoroscopy code is reported.

34. **A. A ventricular catheter, a valve mechanism, and a peritoneal (distal) catheter** A VP shunt system consists of three components: a ventricular catheter placed into a brain ventricle to collect excess CSF, a one-way valve mechanism that regulates CSF flow, and a peritoneal (distal) catheter that drains the CSF into the peritoneal cavity for absorption. Each component may be individually revised if it malfunctions.

35. **D. A modified radical removes the mastoid air cells and the posterior ear canal wall, creating an open cavity; a simple mastoidectomy removes the air cells while preserving the canal wall** The key distinction is whether the posterior ear canal wall is preserved. A simple (complete) mastoidectomy removes the mastoid air cells while keeping the canal wall intact (canal wall up). A modified radical mastoidectomy removes the air cells and the posterior canal wall, creating an open cavity that communicates with the ear canal (canal wall down). This is necessary for cholesteatoma that cannot be adequately removed with the wall intact.

36. **B. With the intravitreal injection code reported for each eye using modifiers RT and LT or modifier 50** Intravitreal injection codes are unilateral. When performed bilaterally, the procedure is reported for each eye using laterality modifiers — either RT on one line and LT on a second line, or a single line with modifier 50. The payer determines which reporting method is required. A single code without a modifier would indicate only one eye was treated.

Evaluation and Management

37. **C. Moderate** Three stable chronic conditions constitute moderate-level problem complexity. Reviewing lab results constitutes limited/moderate data. Adjusting one medication with standard monitoring is moderate-level risk. Two of three MDM elements meet the moderate threshold, supporting code 99214 for an established patient. High MDM would require more complex problems and higher-risk management.

38. **A. Emergency department visit codes (99281–99285)** When a patient is evaluated, treated, and released from the emergency department — not admitted — the ED visit codes (99281–99285) are used. These codes are selected based solely on MDM complexity. ED codes do not distinguish between new and established patients. If the patient were admitted, the initial hospital care codes would be used instead.

39. **D. Chronic care management codes (99490–99491)** Chronic care management (CCM) codes cover the ongoing management of patients with multiple chronic conditions, including non-face-to-face care coordination activities such as medical record review, telephone communication with

other providers, and medication management. Code 99490 covers 20 minutes of clinical staff time, and 99491 covers 30 minutes of physician time, per calendar month.

40. **B. 99202 (new patient, straightforward MDM)** Straightforward MDM — one self-limited problem, no data review, minimal risk — supports the lowest new patient office visit code, 99202. New patient codes start at 99202 (there is no 99201 in the current code set). The MDM level directly determines the code when using the MDM pathway.

41. **C. 99223 (initial hospital care, high MDM)** Initial hospital care code 99223 is selected when the MDM involves high complexity — multiple acute problems, extensive data review, and high-risk management. This is the highest level of initial hospital care. Code 99221 covers straightforward/low MDM, and 99222 covers moderate MDM. ED codes (99285) are used for emergency department encounters, not inpatient admissions.

42. **A. All physician activities on the date of the encounter — pre-visit chart review, face-to-face time, and post-visit documentation, test ordering, and care coordination** Under the current E/M guidelines, total time includes all physician or other qualified healthcare professional activities on the date of the encounter. This encompasses pre-visit preparation (chart review, lab review), face-to-face time with the patient, and post-visit work (documentation, test ordering, care coordination, prescriptions). Time does not need to be face-to-face to count.

Anesthesia

43. **B. 20 units** Base units (7) + Time units (180 minutes ÷ 15 minutes/unit = 12.0) + Modifying units (P3 = 1) = 20.0 total units. The calculation: 7 + 12 + 1 = 20. P3 (morbid obesity, diabetes, severe OSA representing severe systemic disease) adds 1 modifying unit. No qualifying circumstances codes apply for age (patient is 42).

44. **D. Local anesthesia administered by the surgeon is included in the surgical procedure code and is not separately reported** When a surgeon administers local anesthesia for their own procedure, it is considered part of the surgical service and is included in the surgical procedure code. Local anesthesia is not separately coded. Moderate sedation (if provided by the surgeon) may be separately reportable using codes 99151–99157, but simple local anesthesia is always bundled.

45. **A. They are add-on codes that identify conditions that increase the complexity and risk of the anesthetic, such as extreme age, emergency conditions, controlled hypotension, or hypothermia** Qualifying circumstances codes (99100, 99116, 99135, 99140) are add-on codes reported with the primary anesthesia code. They identify specific conditions that make the anesthetic more complex and risky. They add modifying units to the anesthesia formula. They do not replace the base units or the primary anesthesia code.

46. **C. 99100 (extreme age — under 1 year or over 70 years)** A 9-month-old infant qualifies for qualifying circumstances code 99100 (extreme age). Extreme age is defined as under 1 year or

over 70 years. This code recognizes the increased anesthetic complexity and risk in very young and very old patients. The code is reported as an add-on to the primary anesthesia code.

Radiology

47. **B. No modifier; the global service is reported** When the physician performs the X-ray using practice-owned equipment and interprets the images in their own office, both the technical and professional components are provided by the same entity. The global code is reported without any modifier. Modifier 26 or TC would only be used when the components are split between different entities.

48. **D. With the MRI code and modifier 26** When a radiologist from a separate group provides only the interpretation and report (professional component) for an MRI performed at a hospital, modifier 26 is appended. The hospital bills the technical component with modifier TC. Each entity bills only for the component it provided.

49. **A. No modifier; the global service is reported** When the ordering physician interprets the DEXA scan and the study is performed in the physician's own office using practice-owned equipment, both components are provided by the same entity. The global code is reported without any modifier. The physician provided both the technical and professional components of the service.

50. **C. The actual administration of the precisely shaped radiation beams to the patient** IMRT treatment delivery codes represent the actual administration of radiation to the patient using intensity-modulated beams that conform to the three-dimensional shape of the tumor. Treatment planning (77261–77263) covers the design of the radiation fields. Dosimetry (77300) covers dose calculation. Treatment management (77427) covers the physician's ongoing supervision.

51. **D. The patient ingests radioactive iodine, which is taken up by the thyroid, and a gamma camera detects the emitted radiation to create images** Nuclear medicine thyroid imaging works by administering radioactive iodine (or technetium), which is selectively taken up by functional thyroid tissue. A gamma camera then detects the radiation emitted from the thyroid and creates images showing the distribution and concentration of the radiotracer. This is fundamentally different from X-ray, ultrasound, and MRI imaging.

52. **B. CT abdomen with contrast** IV contrast was administered, which qualifies the study as "with contrast" in CPT. The absence of oral contrast does not change the designation. In CPT, "with contrast" means intravenous or injected contrast. The key factor is whether IV contrast was given — if yes, the "with contrast" code is used regardless of whether oral contrast was also administered.

Pathology and Laboratory

53. **A. All three codes — 85025, 80053, and 80061 — since none share overlapping components** The CBC (85025), the CMP (80053), and the lipid panel (80061) do not share overlapping component tests. The CBC measures blood cell components, the CMP measures metabolic and

liver markers, and the lipid panel measures cholesterol and triglycerides. All three codes are reported since there is no overlap requiring adjustment.

54. **C. Level V (88307)** A colon resection specimen is classified at Level V surgical pathology (88307). Level V covers complex specimens requiring extensive examination for cancer staging, margin assessment, and lymph node evaluation. Colon resections for cancer require detailed examination of the tumor, surgical margins, and any lymph nodes submitted with the specimen.

55. **D. The definitive opiate code specifying 1 or 2 analytes** Definitive drug testing codes are specific to each drug class and are based on the number of analytes identified. For opiates with 2 analytes, the code for 1 or 2 analytes is reported. Presumptive codes (80305–80307) are for screening — not definitive identification. Definitive codes provide specific drug identification and are reported per drug class.

56. **B. Pathology and Laboratory section** Cytopathology codes for Pap smears, including those processed using automated thin-layer (liquid-based) preparation, are located in the Pathology and Laboratory section of CPT. The codes cover both the technical preparation/screening and the physician interpretation of the cervical cytology specimen.

57. **A. Modifier QW** Modifier QW (CLIA-waived test) is appended to laboratory codes when the test is performed in a facility operating under a CLIA certificate of waiver. The rapid strep test is a CLIA-waived test when performed using an approved test kit. Modifier QW tells the payer that the test qualifies for reimbursement under the waived-test category.

58. **C. Two units of the special stain code — one per stain** Special stain codes are reported per stain per specimen. Two different stains (trichrome and iron) performed on the same liver biopsy specimen require two units of the special stain code. Each stain identifies different tissue components and represents a separate laboratory service.

Medicine

59. **D. With the initial chemotherapy infusion code (96413) for the first hour plus the additional hour add-on code (96415) for the additional 30 minutes** Oxaliplatin is a chemotherapy agent. The 90-minute infusion is coded with the initial chemotherapy infusion code (96413) for the first hour and the additional hour add-on code (96415) for the remaining 30 minutes (which exceeds the 30-minute threshold for an additional unit). The chemotherapy infusion is the initial service because it is the highest in the hierarchy.

60. **A. 90471 × 1 (adult injection-based code, first vaccine)** For an adult patient (or any age when no physician counseling is provided), the adult injection-based administration code (90471) is used for the first vaccine injection. Since this is a single injection with no physician counseling documented, 90471 × 1 is the correct administration code. The pediatric component-based codes (90460/90461) are not used without physician counseling.

61. **B. Medicine section — cardiovascular diagnostic subsection** Holter monitor (ambulatory ECG) codes are located in the Medicine section under the cardiovascular diagnostic subsection. These codes cover the recording, scanning analysis, physician review, and interpretation of ambulatory ECG recordings. Despite being an electrodiagnostic study, Holter monitoring is not in the Radiology or Surgery sections.

62. **D. 3 units — 1 unit of 97010, 1 unit of 97110, and 1 unit of 97116** The hot pack (97010) is a supervised modality reported as 1 unit regardless of duration — it is not time-based. Therapeutic exercise (97110) with 20 minutes qualifies for 1 timed unit. Gait training (97116) with 10 minutes meets the 8-minute minimum for 1 timed unit. Total: 3 billable units (1 supervised modality + 2 timed units).

63. **C. 90837 (60 minutes)** Fifty-five minutes of psychotherapy falls within the 53-minutes-or-more range for code 90837 (60-minute session). Since no E/M service was provided, the standalone psychotherapy code is used — not the add-on codes (90833, 90836, 90838). Code 90834 (45 minutes) covers only 38–52 minutes. Code 90837 is the correct match for 55 minutes.

64. **A. 50 units of the percutaneous testing code (95004) plus 10 units of the intradermal testing code** Percutaneous (skin prick) and intradermal allergy tests are different methods with different CPT codes. Each allergen tested constitutes one unit. The 50 percutaneous tests are reported as 50 units of 95004, and the 10 intradermal tests are reported as 10 units of the appropriate intradermal code. Both methods are reported when both are performed during the same session.

Medical Terminology

65. **B. Blood condition** The suffix "-emia" means blood condition or relating to the blood. Common examples include anemia (deficiency of red blood cells or hemoglobin), septicemia (bacteria in the blood), hyperglycemia (high blood sugar), and leukemia (cancer of the blood-forming tissues). "-Itis" means inflammation, "-ectomy" means removal, and "-algia" means pain.

66. **D. Pneumon/o or pulmon/o** The combining forms "pneumon/o" and "pulmon/o" both refer to the lung. Common terms include pneumonia (infection of the lung), pneumonectomy (removal of a lung), and pulmonary (relating to the lungs). "Gastr/o" refers to the stomach, "cardi/o" refers to the heart, and "hepat/o" refers to the liver.

67. **A. Many or much** The prefix "poly-" means many or much. Common terms include polydipsia (excessive thirst), polyuria (excessive urination), polycystic (many cysts), and polyneuropathy (disease affecting many nerves). "Mono-" or "uni-" means one, "hemi-" means half, and "a-" or "an-" means without.

68. **C. Inflammation of the gallbladder** Cholecystitis means inflammation of the gallbladder, from the combining form "cholecyst/o" (gallbladder) and the suffix "-itis" (inflammation). Colitis is inflammation of the colon, gastritis is inflammation of the stomach, and hepatitis is inflammation of the liver. The combining form identifies the organ, and the suffix identifies the condition.

Anatomy

69. **B. Most active in childhood and adolescence; part of the immune/lymphatic system** The thymus gland is most active during childhood and adolescence, gradually shrinking (involuting) after puberty. It plays a critical role in the development and maturation of T-lymphocytes (T-cells), which are essential for adaptive immunity. The thymus is part of the lymphatic/immune system and is located in the mediastinum, anterior to the heart.

70. **D. Interventricular septum** The interventricular septum is the muscular and membranous wall that separates the right and left ventricles. It prevents mixing of oxygenated and deoxygenated blood. A ventricular septal defect (VSD) — a hole in this septum — is one of the most common congenital heart defects. The interatrial septum separates the atria. The pericardium is the sac surrounding the heart.

71. **C. The kidney (renal pelvis) and the urinary bladder** The ureter is a muscular tube that connects the renal pelvis of each kidney to the urinary bladder. Urine produced by the kidney collects in the renal pelvis and is transported through the ureter to the bladder by peristaltic contractions. Each kidney has one ureter. The urethra connects the bladder to the outside of the body.

72. **A. Respiration (breathing)** The diaphragm is the primary muscle of respiration. It is a dome-shaped sheet of skeletal muscle that separates the thoracic cavity from the abdominal cavity. During inhalation, the diaphragm contracts and flattens, increasing the volume of the thoracic cavity and drawing air into the lungs. During exhalation, it relaxes and returns to its dome shape.

ICD-10-CM / Diagnosis Coding

73. **D. A combination code** A code that captures multiple clinical elements — acute appendicitis, perforation, and peritoneal abscess — in a single code is a combination code. ICD-10-CM provides combination codes that eliminate the need to report multiple codes for conditions that commonly occur together. The coder should always check for combination codes before reporting individual codes for related conditions.

74. **B. D (subsequent encounter)** A fracture being treated in the healing phase at 3 weeks post-injury uses the 7th character "D" for subsequent encounter. The initial encounter period (7th character "A") covers the active treatment phase. The subsequent encounter period covers routine care during healing. "S" (sequela) would be used only for residual conditions after the fracture has fully healed. "G" indicates delayed healing, which is not documented here.

75. **C. Chapter 17 (Congenital malformations, deformations, and chromosomal abnormalities)** Congenital anomalies, including congenital heart defects such as ventricular septal defect, are coded in ICD-10-CM Chapter 17 (Q00–Q99). This chapter covers all congenital malformations, deformations, and chromosomal abnormalities. Chapter 9 covers acquired diseases of the circulatory system. Chapter 16 covers conditions originating in the perinatal period.

76. **A. J44.0 (COPD with acute lower respiratory infection) plus the appropriate acute bronchitis code** When a patient has COPD with acute bronchitis, ICD-10-CM guidelines direct the coder to report J44.0 (COPD with acute lower respiratory infection) plus the appropriate acute bronchitis code to specify the type of infection. J44.0 is a combination code that indicates COPD complicated by an acute lower respiratory infection. The additional bronchitis code provides specificity.

77. **D. T84 (Complications of internal orthopedic prosthetic devices, implants, and grafts)** Mechanical loosening of a joint prosthesis is coded in ICD-10-CM category T84, which covers complications of internal orthopedic prosthetic devices, implants, and grafts. Specific subcategory codes identify the type of complication (mechanical loosening, infection, periprosthetic fracture) and the joint involved. M17 codes are for osteoarthritis, not prosthetic complications.

HCPCS Level II

78. **B. E0100–E9999** HCPCS Level II E-codes cover durable medical equipment including CPAP devices, oxygen equipment, hospital beds, wheelchairs, and other medical devices. CPAP equipment for sleep apnea treatment falls within this category. J-codes cover drugs, L-codes cover orthotics/prosthetics, and A-codes in the 0000–0999 range cover ambulance services.

79. **C. Modifier GX** Modifier GX (notice of liability issued, voluntary under payer policy) is appended when the provider issues a voluntary notice for a service that is a statutory exclusion — a service Medicare never covers regardless of medical necessity. Modifier GA is for services where an ABN is required and obtained. Modifier GZ is for expected medical necessity denials without an ABN. Modifier QW is for CLIA-waived tests.

80. **A. A0000–A0999 (ambulance transport codes)** Air ambulance transport (helicopter/rotary wing) is covered under the HCPCS Level II A-code range for ambulance services (A0000–A0999). Specific codes distinguish between ground ambulance, rotary wing (helicopter), and fixed wing (airplane) transport. E-codes cover DME, J-codes cover drugs, and L-codes cover orthotics/prosthetics.

Coding Guidelines

81. **D. Modifier 52 (reduced services)** Modifier 52 is appended when a procedure required significantly less work than typically associated with the code. This indicates a reduced service — the procedure was performed but the scope was less extensive than the standard description. Modifier 22 is for increased work. Modifier 53 is for a procedure that was started and then discontinued.

82. **B. With modifier 51 (multiple procedures)** When two distinct procedures are performed during the same operative session and the primary procedure has a higher RVU, modifier 51 (multiple procedures) is appended to the second procedure. This indicates multiple procedures were performed and triggers the appropriate payment reduction for the secondary procedure. Modifier 59 would be used for NCCI edit bypasses.

83. **C. It is not reported separately; the diagnostic cystoscopy is bundled into the surgical cystoscopy** When a diagnostic cystoscopy leads to a surgical procedure (transurethral resection) during the same session, only the surgical cystoscopy code is reported. The diagnostic examination is bundled into the surgical code. This follows the standard endoscopic hierarchy regardless of whether the surgical procedure was planned or unplanned.

84. **A. Routine postoperative follow-up visits** Routine postoperative follow-up visits are included in the 90-day global surgical package and are not separately reportable. Unrelated E/M services (modifier 24), unplanned returns to the OR for complications (modifier 78), and treatment of unrelated conditions (modifier 79) are all exceptions that may be reported separately during the global period.

85. **D. The code is typically paid at 150% of the single-unit rate (100% for the first side + 50% for the second)** When modifier 50 is reported for a bilateral procedure, Medicare typically pays 150% of the single-unit allowed amount — 100% for the primary side and 50% for the contralateral side. This follows the same multiple procedure payment reduction applied to the second procedure. Some payers may have different bilateral payment policies.

86. **B. The common portion of the code description shared with indented codes that follow** The semicolon (;) in CPT code descriptions marks the point where the common portion of the description ends and the unique portion for each indented code begins. Indented codes share the text before the semicolon from the parent (unindented) code and have their own unique text after. This formatting convention avoids repeating the common description for every code in a series.

87. **A. Modifier 95 (synchronous telemedicine service)** Modifier 95 indicates that the service was provided via synchronous real-time audio-video telecommunication technology. This modifier is appended to the E/M code to identify that the encounter was conducted via telemedicine rather than in person. The Place of Service code (POS 02 or POS 10) also reflects the telehealth setting.

Compliance and Regulatory

88. **D. The Geographic Practice Cost Indices (GPCIs)** GPCIs adjust each RVU component (Work, Practice Expense, Professional Liability Insurance) for geographic variations in the cost of practicing medicine. Areas with higher costs of living have higher GPCIs, resulting in higher payment. GPCIs ensure that physician payment reflects the actual cost of providing services in different geographic regions.

89. **C. Civil monetary penalties of up to three times the false claim amount plus per-claim penalties, and potential exclusion from federal healthcare programs** The False Claims Act imposes significant civil penalties for knowingly submitting false claims — up to three times the false claim amount plus additional per-claim penalties. Organizations may also face exclusion from federal healthcare programs. "Knowingly" includes actual knowledge, deliberate ignorance, and reckless disregard. A written warning alone would be insufficient.

90. **A. It is the standard form used to submit professional (physician) claims to Medicare and most commercial payers** The CMS-1500 is the standard paper claim form for professional (physician and non-institutional) services. While most claims are now submitted electronically (ANSI X12 837P format), the CMS-1500 remains the reference template for the data elements required on professional claims. The UB-04 (CMS-1450) is used for institutional (hospital) claims.

Cases — Integrated Coding Scenarios

91. **B. Soft tissue tumor excision codes (subcutaneous) in the musculoskeletal section** A subcutaneous lipoma is a soft tissue tumor located beneath the skin in the subcutaneous layer. The excision is coded using the soft tissue tumor excision codes in the musculoskeletal section — not the skin excision codes (which cover excision of lesions of the skin itself). The distinction between a skin lesion and a subcutaneous tumor determines which code range is used.

92. **D. Yes; intermediate and complex closures may be reported separately when not included in the excision code** For soft tissue tumor excisions in the musculoskeletal section, intermediate and complex wound closures may be reported separately from the excision code because the closure is not inherently included in the subcutaneous tumor excision code. This is different from skin excision codes, where simple closure is included. The coder should verify whether the specific excision code includes the closure.

93. **C. With the endarterectomy code and no splitting modifier — complete global package** When a single surgeon provides all components of care — preoperative evaluation, the surgical procedure, and all postoperative care — the complete global surgical package is reported without splitting modifiers. No modifier 54, 55, or 56 is needed. The endarterectomy code captures the entire episode of care.

94. **A. I65.21 (Occlusion and stenosis of right carotid artery) or the appropriate code reflecting the documented stenosis with cerebrovascular symptoms** The primary diagnosis is the symptomatic right carotid artery stenosis. The ICD-10-CM code should capture the location (right carotid), the pathology (stenosis), and the clinical significance (symptomatic with prior TIA). The TIA history provides the clinical justification for the surgical intervention. Additional codes for the TIA history and any other relevant conditions may be reported secondarily.

95. **B. Therapeutic drug infusion codes (96365–96368)** Rituximab for rheumatoid arthritis is a non-antineoplastic biologic agent. Non-antineoplastic drugs are coded using the therapeutic drug infusion codes (96365–96368), not the chemotherapy codes (which are reserved for antineoplastic agents). The drug classification — not the administration technique — determines the code range.

96. **D. The rituximab therapeutic infusion, because therapeutic infusion outranks hydration in the hierarchy** The infusion hierarchy places therapeutic drug infusion above hydration. Even though the hydration was administered first chronologically, the rituximab therapeutic infusion is the initial service because it ranks higher. The hydration is reported as a secondary/sequential service using the appropriate add-on code. Only one initial infusion per encounter.

97. **C. With the tympanostomy code (general anesthesia) reported bilaterally using modifier 50 or RT/LT modifiers** Tympanostomy tube placement codes are unilateral. When performed bilaterally under general anesthesia, the appropriate tympanostomy code is reported with modifier 50 or on two separate lines with modifiers RT and LT. The general anesthesia version of the code (69436) is used since the patient is 7 years old and the procedure was performed under general anesthesia.

98. **A. No; the myringotomy is included in the tympanostomy tube insertion code** The myringotomy (incision of the tympanic membrane) is the necessary access step for inserting the tympanostomy tube. It is inherently included in the tympanostomy code and is not reported separately. Reporting both a myringotomy code and a tympanostomy code for the same ear constitutes unbundling.

99. **D. No; follow-up visits, cast application, cast changes, and removal are included in the fracture treatment code's global package** When the surgeon assumes the complete fracture care global package, all routine follow-up visits, cast application, cast changes, and cast/splint removal during the healing period are bundled into the fracture treatment code. None of these services are reported separately. The global package covers the entire episode of fracture care.

100. **B. With an E/M code for the UTI evaluation and modifier 24 (unrelated E/M during the postoperative period)** The urinary tract infection is completely unrelated to the fracture treatment. During the global period, an E/M service for a condition unrelated to the original surgery may be reported separately with modifier 24. This modifier tells the payer that the evaluation was for a different condition — not a routine postoperative follow-up visit included in the global package.