SIMULATION EXAM 8

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

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

1. A surgeon excises a 2.2 cm malignant squamous cell carcinoma from the patient's lower lip with 0.5 cm margins. The lip is classified in the face/ears/eyelids/nose/lips anatomical grouping for excision coding. What is the excised diameter?

A. 2.2 cm

B. 2.7 cm

C. 3.7 cm

D. 3.2 cm

2. A patient has a 10.0 cm laceration on the right leg requiring intermediate repair (layered closure of subcutaneous tissue and skin) and a 5.0 cm laceration on the left leg requiring simple repair. Both legs are in the same anatomical grouping for simple repair. How should these be reported?

A. One intermediate repair code for 15.0 cm combining both wounds

B. One intermediate repair code for 10.0 cm and one simple repair code for 5.0 cm

C. One complex repair code for 15.0 cm

D. Two intermediate repair codes, one for each leg

3. A dermatologist performs destruction of 14 actinic keratoses on a patient's bald scalp using liquid nitrogen cryotherapy. Which code(s) should be reported?

A. 17000 × 1 plus 17003 × 13

B. 17004

C. 17000 × 14

D. 17000 × 1 plus 17003 × 11

4. A surgeon performs a flap transfer where the tissue remains attached to its original blood supply (pedicle) and is rotated to cover an adjacent defect. What type of flap is this?

A. Free flap (microvascular)

B. Free skin graft

C. Adjacent tissue transfer (pedicle flap)

D. Xenograft

5. A patient undergoes Mohs surgery. Stage 1 requires 5 tissue blocks. Stage 2 requires 7 tissue blocks. Stage 3 requires 2 tissue blocks. How should the stages and extra blocks be coded?

A. 17311 × 3

B. 17311 × 1, 17312 × 2, 17315 × 2

C. 17311 × 1, 17312 × 2

D. 17311 × 1, 17312 × 2, 17315 × 2 (stage 2 had 7 blocks — 2 blocks beyond the 5-block limit)

6. A physician performs a full-thickness excision of a 0.7 cm benign nevus from the patient's right ear with 0.2 cm margins. The wound is closed with simple sutures. Should the simple closure be reported separately?

A. Yes, with the simple repair code and modifier 59

B. No; simple closure is included in the excision code

C. Yes, with the simple repair code and modifier 51

D. Yes, with the simple repair code and no modifier

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

7. A surgeon performs arthroscopic anterior cruciate ligament (ACL) reconstruction using an allograft tendon. During the same session, the surgeon performs a partial meniscectomy of the medial meniscus. How should the diagnostic arthroscopy 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 arthroscopy codes

D. As a separate code with modifier 76

8. An orthopedic surgeon applies a short leg walking cast to a patient who twisted their ankle. X-rays show no fracture — only a soft tissue sprain. No fracture treatment code is reported. How should the cast application be coded?

A. With a separate cast application code since no fracture treatment code is reported

B. It is included in the E/M service; casting for a sprain is not separately coded

C. With a fracture treatment code and modifier 52

D. With a splint application code only; casts cannot be applied for sprains

9. A patient undergoes a total knee arthroplasty. The orthopedic surgeon performs the surgery, but a different physician will provide all postoperative care. Which modifier should the operating surgeon append?

A. Modifier 55

B. Modifier 54

C. Modifier 56

D. Modifier 24

10. A surgeon performs a posterior spinal fusion at T12-L1 using morselized autograft bone harvested from the local surgical site (laminectomy bone). The bone is obtained from the same incision. How is the bone graft coded?

A. With a separate bone graft harvest code through a separate incision

B. With a separate bone graft harvest code through the same incision

C. With a HCPCS supply code for the bone material

D. The local autograft obtained through the same incision is included in the fusion code and is not separately coded

11. A patient undergoes injection of hyaluronic acid (viscosupplementation) into the right knee joint under ultrasound guidance. Which CPT section contains the joint injection code?

A. Medicine section

B. Radiology section

C. Musculoskeletal system (20,000 series)

D. Anesthesia section

12. A surgeon performs a fasciotomy of the anterior compartment of the left lower leg for acute compartment syndrome. What does a fasciotomy accomplish?

A. It releases pressure within a muscle compartment by incising the fascia to prevent tissue damage from compartment syndrome

B. It repairs a torn tendon

C. It removes a bone tumor

D. It fuses a joint

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

13. A patient undergoes a diagnostic bronchoscopy with bronchial brushing and separately with endobronchial biopsy during the same session. How should the diagnostic bronchoscopy be coded?

A. As a separate code with modifier 51

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

C. As a separate code with modifier 59

D. As a separate code with modifier 25

14. A cardiologist performs catheter-based ablation of an accessory pathway causing Wolff-Parkinson-White syndrome. The ablation is performed via a right heart catheterization approach. How is the diagnostic right heart catheterization coded?

A. As a separate code with modifier 59

B. As a separate code with modifier 51

C. As a separate code with modifier 26

D. It depends on whether the catheterization was performed solely as the approach for the ablation or also for independent diagnostic purposes

15. A surgeon performs bilateral axillary lymph node dissection for staging of breast cancer. How should the bilateral nature be reported?

A. With the lymph node dissection code reported bilaterally using modifier 50 or RT/LT modifiers

B. With a single code and no modifier; the code is inherently bilateral

C. With two separate codes and modifier 51 on the second

D. With the code and modifier 22

16. A patient has a tunneled central venous catheter with a subcutaneous port (port-a-cath) placed for long-term chemotherapy administration. Which of the following factors distinguishes a port from a standard tunneled catheter?

A. A port is placed peripherally; a tunneled catheter is placed centrally

B. A port is temporary; a tunneled catheter is permanent

C. A port has a subcutaneous reservoir accessed by needle puncture through the skin; a tunneled catheter has an external hub

D. There is no difference; the terms are interchangeable

17. A surgeon performs an endovascular repair (EVAR) of an infrarenal abdominal aortic aneurysm using a modular bifurcated endograft. How does EVAR differ from open aortic aneurysm repair?

A. EVAR requires a sternotomy; open repair uses a femoral approach

B. EVAR deploys a stent graft through a catheter inserted via the femoral artery without opening the abdomen; open repair requires a laparotomy

C. There is no difference; both require open abdominal incision

D. EVAR is only for thoracic aneurysms; open repair is for abdominal aneurysms

18. A patient undergoes a right carotid endarterectomy. During the procedure, the surgeon uses a patch graft (saphenous vein patch) to close the arteriotomy. How is the patch graft coded?

A. With a separate vein harvest code

B. As a separate add-on code with modifier 59

C. With an unlisted vascular code

D. The patch graft closure (patch angioplasty) is included in the endarterectomy code

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

19. A patient undergoes a colonoscopy with endoscopic mucosal resection (EMR) of a large 3.0 cm flat polyp from the cecum. How should the diagnostic colonoscopy be coded?

A. It is not reported separately; it is included in the surgical colonoscopy code for EMR

B. As a separate code with modifier 59

C. As a separate code with modifier 25

D. As a separate code with modifier 51

20. A surgeon performs a laparoscopic repair of a recurrent, reducible ventral hernia. Which factors determine the CPT code for this repair?

A. Only the hernia type and the patient's BMI

B. Only the hernia type and whether mesh was used

C. The hernia type, initial vs. recurrent status, incarcerated vs. reducible, and the approach (open vs. laparoscopic)

D. Only the approach and the patient's age

21. A patient undergoes ERCP with sphincterotomy, balloon dilation of a bile duct stricture, and removal of multiple common bile duct stones during the same session. How should the diagnostic ERCP be coded?

A. As a separate code with modifier 59

B. It is not reported separately; it is included in the surgical ERCP codes

C. As a separate code with modifier 25

D. As a separate code with modifier 51

22. A surgeon performs an open repair of a strangulated femoral hernia. What distinguishes a strangulated hernia from an incarcerated hernia?

A. A strangulated hernia is reducible; an incarcerated hernia is not

B. A strangulated hernia is located in the inguinal canal; an incarcerated hernia is femoral

C. There is no difference; the terms are interchangeable

D. In a strangulated hernia, the blood supply to the herniated tissue is compromised; in an incarcerated hernia, the tissue is trapped but the blood supply is intact

23. A patient undergoes an EGD with band ligation of esophageal varices. How should the diagnostic EGD be coded?

A. As a separate code with modifier 51

B. As a separate code with modifier 59

C. It is not reported separately; it is included in the surgical EGD code for variceal banding

D. As a separate code with modifier 25

24. A surgeon performs a total proctocolectomy with creation of an ileal pouch-anal anastomosis (J-pouch) for ulcerative colitis. What does this procedure accomplish?

A. Removal of the entire colon and rectum with creation of a continent internal reservoir from the ileum connected to the anus, preserving the ability to defecate without a permanent external stoma

B. Removal of only the rectum

C. Creation of a permanent colostomy

D. Removal of the appendix only

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

25. A urologist performs a ureteroscopy with basket extraction of a right ureteral stone. The diagnostic cystoscopy is bundled. The surgeon also places a ureteral stent at the completion of the procedure. Are the stone extraction and stent placement separately reportable?

A. No; the stent placement is always included in the stone extraction code

B. Yes; the stone extraction and the stent placement are separate procedures with separate codes

C. No; only the stent placement is reportable

D. Yes, but only with modifier 22 on the stone extraction code

26. A patient undergoes a laparoscopic bilateral salpingectomy (removal of both fallopian tubes) as a risk-reducing procedure due to BRCA1 gene mutation. How should the bilateral nature be reported?

A. With a single code and no modifier

B. With the salpingectomy code and modifier 22

C. With two separate unilateral codes without modifiers

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

27. A physician provides all antepartum care, performs a vaginal delivery complicated by shoulder dystocia requiring additional maneuvers, and provides all postpartum care. How should this be coded?

A. With the global vaginal delivery code; shoulder dystocia management is included in the delivery code

B. With the global vaginal delivery code and modifier 22 to reflect the additional work of the complicated delivery

C. With separate codes for the delivery and the shoulder dystocia management

D. With the cesarean delivery code since the delivery was complicated

28. A surgeon performs a radical cystectomy (removal of the entire bladder) with creation of an ileal conduit urinary diversion for muscle-invasive bladder cancer. How is the urinary diversion coded?

A. It is always included in the radical cystectomy code

B. With a separate E/M code

C. The coding depends on whether the radical cystectomy code description includes the urinary diversion or whether separate codes are needed per CPT

D. With a HCPCS supply code only

29. A urologist performs a transurethral incision of the prostate (TUIP) for a small prostate with bladder outlet obstruction. How does TUIP differ from TURP?

A. TUIP removes the entire prostate; TURP removes only obstructing tissue

B. TUIP makes incisions in the prostate to relieve obstruction without removing tissue; TURP resects and removes prostate tissue

C. There is no difference; both are the same procedure

D. TUIP is performed through an open incision; TURP is performed transurethrally

30. A surgeon performs a completion thyroidectomy — removing the remaining thyroid lobe after a previous lobectomy revealed thyroid cancer on final pathology. How is a completion thyroidectomy coded?

A. With the initial total thyroidectomy code

B. With the thyroid lobectomy code and modifier 76

C. With a thyroid biopsy code

D. With the completion thyroidectomy code, which is distinct from the initial total thyroidectomy code

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

31. A neurosurgeon performs a craniotomy for excision of a meningioma located in the supratentorial region. The bone flap is replaced at the conclusion of the procedure. What type of procedure is this?

A. A craniotomy — the bone flap was replaced

B. A craniectomy — the bone was removed

C. A cranioplasty — the skull was reconstructed

D. A burr hole — a small opening was drilled

32. An ophthalmologist performs an aqueous shunt (tube) implantation in the right eye for uncontrolled glaucoma that has failed prior trabeculectomy and medical therapy. What does this device accomplish?

A. It replaces the crystalline lens

B. It reattaches the retina

C. It diverts aqueous humor from inside the eye to a reservoir on the surface of the eye to reduce intraocular pressure

D. It corrects strabismus

33. A pain management physician performs a lumbar sympathetic block at L2 under fluoroscopic guidance for treatment of complex regional pain syndrome affecting the left lower extremity. How is a sympathetic block classified differently from a somatic nerve block?

A. A sympathetic block targets motor nerves; a somatic block targets sensory nerves

B. There is no difference; both terms describe the same procedure

C. A sympathetic block is always performed under MRI guidance; a somatic block uses fluoroscopy

D. A sympathetic block targets the autonomic sympathetic nervous system; a somatic block targets peripheral sensory or motor nerves

34. A neurosurgeon replaces the peritoneal catheter of an existing VP shunt while leaving the ventricular catheter and valve in place. How should this be coded?

A. With the complete shunt creation code

B. With the shunt revision code for replacement of the peritoneal (distal) catheter

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

D. With the ventricular catheter revision code

35. A patient undergoes bilateral cataract surgery — right eye today and left eye in two weeks. The first eye's cataract extraction (66984) has a 90-day global period. How should the second eye's surgery be coded?

A. With code 66984 plus modifier 79 (unrelated procedure during the postoperative period) and modifier LT for the left eye

B. With code 66984 and modifier 50 for bilateral

C. With code 66984 and modifier 76 for repeat procedure

D. With code 66984 and modifier 58 for staged procedure

36. An otolaryngologist performs a radical mastoidectomy for extensive cholesteatoma. What distinguishes a radical mastoidectomy from a simple mastoidectomy?

A. A simple mastoidectomy includes removal of the posterior canal wall; a radical does not

B. A radical mastoidectomy is performed on children; a simple mastoidectomy is for adults

C. A radical mastoidectomy removes the mastoid, posterior canal wall, tympanic membrane remnants, and most of the ossicular chain; a simple mastoidectomy removes only the mastoid air cells while preserving the canal wall

D. There is no difference between the two procedures

Evaluation and Management (Questions 37–42)

37. A physician provides hospital discharge services for a patient with complex discharge needs. The physician spends 50 minutes on discharge-day activities including final examination, discharge instructions, medication reconciliation, coordination with home health services, and documentation. Which discharge code should be reported?

A. 99238 (discharge day management, 30 minutes or less)

B. 99231 (subsequent hospital care)

C. 99291 (critical care)

D. 99239 (discharge day management, more than 30 minutes)

38. A new patient presents to the office with multiple acute and chronic conditions. The physician performs extensive data review, orders multiple tests, and makes management decisions involving significant risk including a drug requiring intensive monitoring. The MDM is high complexity. Using the MDM pathway, which code should be reported?

A. 99204 (new patient, moderate MDM)

B. 99205 (new patient, high MDM)

C. 99215 (established patient, high MDM)

D. 99203 (new patient, low MDM)

39. A patient is seen by a cardiologist at the request of the patient's primary care physician. The PCP sends a written request for the cardiologist to evaluate the patient's new heart murmur and provide recommendations. The cardiologist evaluates the patient, performs an assessment, and sends a written report back to the PCP. Which E/M code set should the cardiologist use?

A. Consultation codes (if the payer recognizes consultations)

B. Office visit codes only; consultation codes have been eliminated

C. Critical care codes

D. Preventive medicine codes

40. A physician sees an established patient in the office. The total time on the date of service is 35 minutes. Using the time-based pathway, which established patient code is supported?

A. 99215 (40 minutes)

B. 99213 (20 minutes)

C. 99214 (30 minutes)

D. 99212 (10 minutes)

41. A physician provides critical care services to a critically ill patient. During the 74 minutes of critical care, the physician performs endotracheal intubation and interprets a portable chest X-ray. Which of these services is separately reportable during critical care?

A. The chest X-ray interpretation; it is bundled into critical care

B. The endotracheal intubation; it is bundled into critical care

C. Both services are separately reportable

D. The endotracheal intubation is separately reportable; the chest X-ray interpretation is bundled

42. Under the current E/M guidelines, which of the following accurately describes the relationship between the number of diagnoses addressed and the MDM level?

A. The number of diagnoses is irrelevant to MDM

B. The number and complexity of problems addressed is one of three elements that determine the MDM level

C. Each diagnosis requires a separate E/M code

D. More than five diagnoses automatically qualifies as high MDM

Anesthesia (Questions 43–46)

43. An anesthesiologist provides general anesthesia for a right total hip replacement on a 68-year-old patient with well-controlled hypertension and Type 2 diabetes (P2). Total anesthesia time is 150 minutes. The payer uses 15-minute time units and assigns no modifying units for P2. Base units for the procedure are 8. What is the total unit calculation?

A. 18 units

B. 17 units

C. 19 units

D. 16 units

44. A patient undergoes a procedure under moderate (conscious) sedation provided by the same physician performing the procedure. The sedation lasts 25 minutes (intra-service time). Which code range covers physician-administered moderate sedation?

A. Standard anesthesia codes (00100–01999)

B. Qualifying circumstances codes (99100–99140)

C. Moderate sedation codes (99151–99157)

D. Critical care codes (99291–99292)

45. An anesthesiologist provides anesthesia for a patient undergoing emergency repair of a ruptured abdominal aortic aneurysm. The patient is classified as P5 (moribund). Which qualifying circumstances code applies for the emergency nature of the procedure?

A. 99100 (extreme age)

B. 99116 (total body hypothermia)

C. 99135 (controlled hypotension)

D. 99140 (emergency conditions)

46. In the anesthesia payment formula, which component represents the dollar amount that converts total adjusted RVUs (or anesthesia units) into a payment amount?

A. Base units

B. Conversion factor

C. Modifying units

D. Time units

Radiology (Questions 47–52)

47. A patient undergoes a CT of the abdomen and pelvis without contrast followed by with contrast (dual-phase study). How should this be coded?

A. Two separate codes — CT abdomen/pelvis without contrast plus CT abdomen/pelvis with contrast

B. CT abdomen/pelvis with contrast only

C. A single combination code for CT abdomen/pelvis without contrast followed by with contrast

D. CT abdomen/pelvis without contrast only; the contrast phase is bundled

48. A radiologist interprets an MRI of the brain performed at an outside imaging center. The radiologist was not present at the imaging center and did not supervise the technologist. Which modifier should the radiologist append?

A. Modifier 26

B. Modifier TC

C. No modifier

D. Modifier 59

49. A patient undergoes a nuclear medicine cardiac perfusion study (myocardial perfusion imaging) with both rest and stress images. What does this study evaluate?

A. The electrical conduction system of the heart

B. The heart valve function

C. The size of the cardiac chambers

D. Blood flow to the heart muscle at rest and during stress to detect coronary artery disease

50. A patient undergoes stereotactic body radiation therapy (SBRT) delivered in 5 fractions to a lung tumor. How does SBRT differ from conventional radiation therapy?

A. SBRT uses lower doses per fraction over many weeks

B. SBRT delivers highly focused, high-dose radiation in a limited number of fractions (typically 3–5) to extracranial targets

C. SBRT is the same as conventional external beam radiation

D. SBRT is only used for brain tumors

51. A hospital performs a two-view chest X-ray on an outpatient. A radiologist from a separate group interprets the study. How should the hospital bill?

A. With the global X-ray code

B. With modifier 26

C. With modifier TC

D. With a facility fee code only

52. In radiation oncology, which code covers the mathematical calculation of radiation dose distribution within the patient's body?

A. Dosimetry (77300)

B. Treatment planning (77263)

C. Treatment delivery (77386)

D. Treatment management (77427)

Pathology and Laboratory (Questions 53–58)

53. A physician orders a comprehensive metabolic panel (CMP) on a patient. The laboratory performs all 14 component tests plus an additional hemoglobin A1c (83036) on the same specimen. How should these be reported?

A. Only the CMP code; the A1c is bundled

B. Individual codes for all 15 tests; the CMP cannot be used with additional tests

C. The CMP code with modifier 22

D. The CMP code plus the individual hemoglobin A1c code

54. A pathologist examines a lymph node biopsy specimen from a patient with suspected lymphoma. At which level of surgical pathology is a lymph node biopsy classified?

A. Level III (88304)

B. Level IV (88305)

C. Level V (88307)

D. Level II (88302)

55. A laboratory performs both a presumptive drug screen (80307) and definitive drug testing for opiates (3 analytes) and benzodiazepines (2 analytes) on the same specimen. How should these be coded?

A. Only the presumptive code; the definitive is bundled

B. Only the definitive codes; the presumptive is bundled

C. All three codes — the presumptive code (one unit) plus two definitive codes (one per drug class)

D. One presumptive code plus one definitive code for both drug classes combined

56. A patient has blood drawn at a physician's office laboratory (CLIA-waived). A rapid glucose test is performed using a point-of-care device. Which modifier should be appended to the glucose code?

A. Modifier QW

B. Modifier 26

C. Modifier TC

D. Modifier 91

57. A bone marrow aspiration is performed on a patient with pancytopenia. No biopsy is performed. Which code should be reported?

A. The bone marrow biopsy code (38221)

B. Both the aspiration code (38220) and the biopsy code (38221)

C. A pathology consultation code

D. The bone marrow aspiration code (38220)

58. Cytogenetic testing is performed on a prenatal amniocentesis specimen. The testing includes cell culture, chromosome analysis (karyotyping), and banding. What type of genetic abnormalities does karyotyping detect?

A. Single gene mutations

B. Chromosomal abnormalities such as trisomy 21 (Down syndrome), translocations, and deletions visible at the chromosomal level

C. Point mutations in DNA sequences

D. Epigenetic modifications

Medicine (Questions 59–64)

59. A patient receives the following IV services during a single outpatient encounter: a 1-hour IV infusion of a chemotherapy agent, an IV push of a different chemotherapy agent, and 60 minutes of IV hydration. According to the infusion hierarchy, which service is the initial service?

A. The IV hydration

B. The IV push

C. The chemotherapy infusion

D. Each service is reported as a separate initial service

60. A 15-year-old patient receives two vaccine injections at a well-child visit: Tdap (tetanus, diphtheria, pertussis — 3 antigen components) and meningococcal conjugate (1 antigen component). The physician provides face-to-face counseling about each vaccine. How many total administration code units should be reported?

A. Tdap: 90460 × 1 + 90461 × 2 = 3 units. Meningococcal: 90460 × 1 = 1 unit. Total = 4 units.

B. Two units: 90471 × 1, 90472 × 1

C. One unit: 90460 × 1

D. Three units: 90460 × 3

61. A patient undergoes a complete transthoracic echocardiogram (TTE) with Doppler and color flow at a hospital. The cardiologist provides only the interpretation and report. Which modifier should the cardiologist append?

A. No modifier; the global service is reported

B. Modifier TC

C. Modifier 59

D. Modifier 26

62. A therapist provides 30 minutes of aquatic therapy (97113) to a patient in a therapeutic pool. Aquatic therapy is a timed therapeutic procedure. Using the 8-minute rule, how many units should be reported?

A. 1 unit

B. 2 units

C. 3 units

D. 4 units

63. An allergist performs patch testing using 40 allergen patches applied to the patient's back. The patches are removed and read 48 hours later. How should the initial application be coded?

A. 40 units of the patch testing code (95044)

B. One unit of the patch testing code regardless of the number of allergens

C. A panel code for comprehensive patch testing

D. 20 units (two allergens per patch)

64. A psychiatrist provides a 30-minute medication management visit (E/M) and 35 minutes of psychotherapy during the same encounter. Which psychotherapy code should be reported?

A. 90834 (standalone 45-minute psychotherapy)

B. 90837 (standalone 60-minute psychotherapy)

C. 90833 (30-minute add-on psychotherapy with E/M)

D. 90832 (standalone 30-minute psychotherapy)

Medical Terminology (Questions 65–68)

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

A. Surgical repair

B. Visual examination

C. Inflammation

D. Surgical puncture to aspirate fluid

66. Which combining form refers to the bone marrow or spinal cord?

A. Oste/o

B. Myel/o

C. Neur/o

D. Hem/o

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

A. After

B. Against

C. Before or in front of

D. Around

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

A. Surgical repair or reshaping of the nose

B. Surgical removal of the nose

C. Visual examination of the nose

D. Inflammation of the nose

Anatomy (Questions 69–72)

69. The common bile duct is formed by the junction of which two ducts?

A. The left and right hepatic ducts

B. The pancreatic duct and the hepatic duct

C. The cystic duct and the thoracic duct

D. The cystic duct and the common hepatic duct

70. Which chamber of the heart pumps oxygenated blood to the systemic circulation?

A. Right atrium

B. Left ventricle

C. Right ventricle

D. Left atrium

71. The rotator cuff is composed of the tendons of how many muscles?

A. Four

B. Two

C. Six

D. Three

72. Which part of the brain is primarily responsible for coordination, balance, and fine motor control?

A. Frontal lobe

B. Temporal lobe

C. Cerebellum

D. Medulla oblongata

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

73. A patient presents with a displaced fracture of the right femoral shaft. This is the patient's first visit and the orthopedic surgeon provides active treatment. Which 7th character should be used?

A. D (subsequent encounter)

B. S (sequela)

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

D. A (initial encounter)

74. A patient undergoes a screening colonoscopy and is found to have a colonic polyp. The polyp is removed during the procedure. Under ICD-10-CM outpatient guidelines, which diagnosis is sequenced first?

A. Z12.11 (Encounter for screening for malignant neoplasm of colon) as the first-listed diagnosis, with the polyp code as secondary

B. The polyp code as the first-listed diagnosis

C. Only the screening Z code; the polyp is not coded

D. A personal history code as the first-listed diagnosis

75. In ICD-10-CM, when a patient has both diabetes mellitus and a diabetic manifestation (such as diabetic retinopathy), how is the relationship captured in the coding?

A. Two completely separate codes with no linkage

B. A combination code from the diabetes category that specifies both the diabetes type and the specific manifestation

C. Only the manifestation code; the diabetes is assumed

D. Only the diabetes code without specifying the manifestation

76. A patient is treated for poisoning from accidental ingestion of a household cleaning product. Under ICD-10-CM poisoning coding, what is the sequencing order?

A. The external cause code is sequenced first

B. Only the manifestation code is reported

C. The T code for the poisoning is sequenced first, followed by the manifestation code

D. Only the T code is reported; no manifestation code is needed

77. A coder is assigning diagnosis codes for a patient with documented congestive heart failure and chronic kidney disease stage 4. The physician also documents hypertension. Under ICD-10-CM, what code category captures the relationship between hypertension, heart failure, and CKD?

A. I10 (Essential hypertension) alone

B. I11 (Hypertensive heart disease) alone

C. I12 (Hypertensive chronic kidney disease) alone

D. I13 (Hypertensive heart and chronic kidney disease)

HCPCS Level II (Questions 78–80)

78. A patient receives a power wheelchair for mobility. Which HCPCS Level II code range covers power wheelchairs and other durable medical equipment?

A. E0100–E9999

B. L0000–L9999

C. J0000–J9999

D. A0000–A0999

79. A Medicare patient requires a service that the provider expects will be denied for medical necessity. The provider obtains a signed ABN before the service. If Medicare denies the claim, what is the financial outcome for the provider?

A. The provider must write off the denied amount

B. The provider may bill the patient for the denied service because a valid ABN was obtained

C. The provider must appeal the denial before billing the patient

D. The provider cannot collect from either Medicare or the patient

80. Which HCPCS modifier indicates that a procedure was performed on the right side of the body?

A. Modifier LT

B. Modifier 50

C. Modifier RT

D. Modifier LC

Coding Guidelines (Questions 81–87)

81. A CPT code designated with the circle-slash symbol (Ø) indicates which of the following?

A. A new code added in the current year

B. An add-on code

C. A code with a revised description

D. A modifier 51 exempt code

82. A surgeon performs a planned staged procedure during the 90-day global period of the original surgery. The second stage was prospectively planned at the time of the first surgery. Which modifier should be appended to the second procedure?

A. Modifier 58

B. Modifier 78

C. Modifier 79

D. Modifier 76

83. Under NCCI guidelines, when two codes have a Column 1/Column 2 edit with modifier indicator 1, what is the correct approach?

A. The Column 2 code can never be reported with the Column 1 code

B. The modifier indicator allows a modifier to be appended to the Column 2 code to bypass the edit, but ONLY when clinical documentation supports that the procedures were truly distinct

C. Modifier 51 automatically bypasses all NCCI edits

D. The edit only applies to Medicare Advantage plans

84. A global surgical period of 10 days applies to which general category of procedures?

A. Major surgical procedures

B. E/M services

C. Minor surgical procedures

D. Radiology interpretations

85. When a physician performs a service that involves significantly less work than typically required, and the code description does not accurately reflect the reduced scope, which modifier should be appended?

A. Modifier 22

B. Modifier 53

C. Modifier 59

D. Modifier 52

86. In CPT, which appendix contains the complete list of modifiers?

A. Appendix A

B. Appendix D

C. Appendix C

D. Appendix B

87. A physician reports a procedure code for a service performed on the wrong patient. This error is discovered before the claim is paid. What should the practice do?

A. Report the error to the OIG immediately

B. Void and correct the claim before submission or submit a corrected claim to the payer

C. Add modifier 59 to correct the error

D. Bill the correct patient using the same claim number

Compliance and Regulatory (Questions 88–90)

88. Under the False Claims Act, which of the following mental states satisfies the "knowingly" standard for liability?

A. Only intentional fraud with specific intent to deceive

B. Only actual knowledge of the false claim

C. Actual knowledge, deliberate ignorance, or reckless disregard of the truth or falsity of the claim

D. Only criminal negligence

89. A healthcare organization conducts regular internal coding audits as part of its compliance program. What is the primary purpose of these audits?

A. To increase revenue by finding missed charges

B. To satisfy accreditation requirements only

C. To benchmark against competitor organizations

D. To identify coding errors, measure accuracy, detect patterns of overcoding or undercoding, and implement corrective action

90. Which element of the RBRVS payment formula is updated and published by CMS annually and converts total adjusted RVUs into a dollar payment amount?

A. The conversion factor

B. The base unit value

C. The geographic practice cost index

D. The work RVU

Cases — Integrated Coding Scenarios (Questions 91–100)

Case 1 (Questions 91–92):

A 55-year-old patient undergoes a diagnostic colonoscopy. During the procedure, the gastroenterologist identifies a 2.0 cm sessile polyp in the ascending colon and removes it using snare technique with electrocautery. A separate 0.5 cm polyp in the sigmoid colon is removed using cold forceps biopsy technique.

91. How should the two polyp removals be coded?

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

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

C. Two snare polypectomy codes

D. One diagnostic colonoscopy code plus one polypectomy code

92. Should the diagnostic colonoscopy code (45378) be reported in addition to the surgical codes?

A. Yes, with modifier 59

B. Yes, with modifier 25

C. No; the diagnostic colonoscopy is bundled into the surgical colonoscopy codes

D. Yes, with modifier 51

Case 2 (Questions 93–94):

A 62-year-old patient with poorly controlled Type 2 diabetes, coronary artery disease, and newly diagnosed peripheral neuropathy sees a new primary care physician. The physician performs an extensive evaluation, orders multiple diagnostic tests, reviews outside records, and initiates a complex medication regimen with significant drug interaction risk.

93. What level of MDM does this encounter support?

A. Straightforward

B. Low

C. Moderate

D. High

94. This is a new patient with high-complexity MDM. Using the MDM pathway, which code should be reported?

A. 99205 (new patient, high MDM)

B. 99215 (established patient, high MDM)

C. 99204 (new patient, moderate MDM)

D. 99203 (new patient, low MDM)

Case 3 (Questions 95–96):

A pain management physician performs a right L4-L5 and L5-S1 transforaminal epidural steroid injection under fluoroscopic guidance (imaging included in the injection code). The patient also receives a right L3-L4 paravertebral facet joint injection during the same session.

95. How should the two-level transforaminal injection be coded?

A. Two primary transforaminal injection codes with modifier 59

B. A primary transforaminal injection code for the first level plus an add-on code for the additional level

C. A single injection code for both levels

D. Two injection codes with modifier 76

96. The facet joint injection is a distinct service from the transforaminal injections. Can both the transforaminal and facet injection codes be reported on the same date?

A. No; only one type of spinal injection per date

B. No; the facet injection is bundled into the transforaminal injection

C. Yes; both may be reported with appropriate modifiers to indicate distinct services

D. Yes, but only if performed by different physicians

Case 4 (Questions 97–98):

A 4-year-old child receives three vaccine injections at a well-child visit: DTaP (3 components), IPV (1 component), and Hepatitis B (1 component). The pediatrician provides face-to-face counseling about each vaccine.

97. How many total units of vaccine administration codes should be reported?

A. Three units: 90471 × 1, 90472 × 2

B. Five units: 90460 × 5

C. Three units: 90460 × 3 (one for each injection)

D. Seven units: 90460 × 3 (first component of each vaccine) plus 90461 × 2 (additional DTaP components) = 5 total administration code units

98. The DTaP vaccine contains 3 antigen components. How is the DTaP administration specifically coded using pediatric codes?

A. 90460 × 1 plus 90461 × 2

B. 90471 × 1

C. 90460 × 3

D. 90472 × 3

Case 5 (Questions 99–100):

A patient undergoes excision of a 1.2 cm benign lesion from the right cheek with 0.3 cm margins. The wound is closed with intermediate layered repair.

99. What is the excised diameter for code selection?

A. 1.2 cm

B. 1.8 cm

C. 1.5 cm

D. 2.4 cm

100. The wound is closed with intermediate layered closure. Should the intermediate repair be coded separately from the excision?

A. No; all wound closures are included in excision codes

B. No; only complex closures are separately reportable

C. Yes; intermediate and complex closures may be reported separately from excision codes

D. Yes, but only with modifier 22

SIMULATION EXAM 8 — ANSWER KEY WITH EXPLANATIONS

10,000 Series — Integumentary System

1. **D. 3.2 cm** The excised diameter is calculated as lesion diameter plus margins on both sides: 2.2 cm + (0.5 cm × 2) = 3.2 cm. The margin is doubled because normal tissue is removed circumferentially around the entire lesion. This 3.2 cm excised diameter determines the correct code within the malignant excision range for the face/lips anatomical grouping.

2. **B. One intermediate repair code for 10.0 cm and one simple repair code for 5.0 cm** Wounds of different repair classifications cannot be combined. The intermediate repair on the right leg (10.0 cm) is reported with one intermediate repair code. The simple repair on the left leg (5.0 cm) is reported with one simple repair code. Different classifications are always reported separately, even when in the same anatomical grouping.

3. **A. 17000 × 1 plus 17003 × 13** For destruction of premalignant lesions (actinic keratoses), code 17000 covers the first lesion and code 17003 covers the second through fourteenth additional lesions. For 14 lesions: 17000 × 1 (first lesion) plus 17003 × 13 (lesions 2 through 14). The flat code 17004 is only used when 15 or more lesions are destroyed — at 14 lesions, the individual counting method applies.

4. **C. Adjacent tissue transfer (pedicle flap)** An adjacent tissue transfer involves moving tissue from an area adjacent to the defect while the tissue remains attached to its original blood supply (pedicle). The tissue is rotated, advanced, or transposed to cover the nearby defect. A free flap involves detaching tissue completely and reanastomosing its blood vessels at the recipient site using microsurgical techniques. A skin graft has no blood supply attachment.

5. **D. 17311 × 1, 17312 × 2, 17315 × 2 (stage 2 had 7 blocks — 2 blocks beyond the 5-block limit)** Code 17311 covers the first stage (up to 5 tissue blocks — stage 1 had exactly 5, within the limit). Code 17312 is reported for each additional stage (stages 2 and 3 = 2 units). Code 17315 is reported for each tissue block beyond 5 in any single stage — stage 2 had 7 blocks, exceeding the 5-block limit by 2, so 17315 × 2.

6. **B. No; simple closure is included in the excision code** Simple wound closure (sutures, staples, or tissue adhesive) is always included in the excision code and is never separately reportable. Only intermediate and complex closures may be reported in addition to the excision code because they require additional work beyond what the excision code encompasses. This bundling rule applies to all benign and malignant excision codes.

20,000 Series — Musculoskeletal System

7. **C. It is not reported separately; it is included in the surgical arthroscopy codes** Diagnostic arthroscopy is always bundled into surgical arthroscopy when both are performed on the same joint during the same session. The ACL reconstruction and the partial meniscectomy are both surgical arthroscopic procedures — the diagnostic examination is included in each. Both surgical procedures may be reported separately with appropriate modifiers per NCCI guidelines.

8. **A. With a separate cast application code since no fracture treatment code is reported** When a cast or splint is applied for a condition other than fracture treatment (in this case, an ankle sprain), the cast application code is reported separately because no fracture treatment global package is in effect. Cast application codes are only bundled when they are part of the global fracture care package. For sprains and other non-fracture conditions, the cast application is a distinct, separately reportable service.

9. **B. Modifier 54** Modifier 54 (surgical care only) is appended when the operating surgeon performs the surgery and provides preoperative care but does not provide postoperative management. The physician who assumes postoperative care reports the same procedure code with modifier 55 (postoperative management only). This split-care arrangement divides the global surgical fee between the providers.

10. **D. The local autograft obtained through the same incision is included in the fusion code and is not separately coded** When morselized autograft bone is harvested from the local surgical site (such as bone obtained from the laminectomy performed during the same procedure) through the same incision, it is considered part of the fusion procedure and is not separately coded. A separate bone graft harvest code is only reported when the graft is obtained through a separate incision or from a separate donor site.

11. **C. Musculoskeletal system (20,000 series)** Joint injection codes (20600–20611) are located in the musculoskeletal system section of CPT. These codes cover injections into small, intermediate, and large joints and are differentiated by joint size and whether ultrasound guidance is used. The hyaluronic acid product is coded separately with the appropriate HCPCS J-code. The ultrasound guidance may also require a separate code.

12. **A. It releases pressure within a muscle compartment by incising the fascia to prevent tissue damage from compartment syndrome** A fasciotomy involves incising the fascia (the tough membrane that encloses a muscle compartment) to release elevated pressure within the compartment. Acute compartment syndrome occurs when pressure within a closed muscle compartment exceeds perfusion pressure, cutting off blood supply to the muscles and nerves. Without fasciotomy, irreversible tissue damage, necrosis, and potential limb loss can occur.

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

13. **B. It is not reported separately; it is included in the surgical bronchoscopy codes** Diagnostic bronchoscopy is always bundled into surgical bronchoscopy when both are performed during the same session. The bronchial brushing and the endobronchial biopsy are separate surgical bronchoscopic procedures, each reported with their own code. The diagnostic examination is included in the surgical codes and is not reported as an additional code.

14. **D. It depends on whether the catheterization was performed solely as the approach for the ablation or also for independent diagnostic purposes** When a right heart catheterization is performed solely as the approach for a therapeutic catheter ablation, the catheterization may be included in the ablation code. However, if a diagnostic right heart catheterization with hemodynamic measurements is performed for independent diagnostic purposes in addition to serving as the approach, it may be separately reportable. The clinical documentation determines whether the catheterization served an independent diagnostic purpose.

15. **A. With the lymph node dissection code reported bilaterally using modifier 50 or RT/LT modifiers** Axillary lymph node dissection codes are unilateral. When performed bilaterally, the procedure is reported with modifier 50 (bilateral) or on separate lines with modifiers RT and LT. The bilateral modifier indicates the procedure was performed on both sides during the same session and ensures appropriate reimbursement for the additional surgical work.

16. **C. A port has a subcutaneous reservoir accessed by needle puncture through the skin; a tunneled catheter has an external hub** A port-a-cath consists of a catheter connected to a subcutaneous reservoir (port) that is completely implanted under the skin. It is accessed by inserting a special needle (Huber needle) through the skin into the port. A tunneled catheter has an external hub that exits the skin and is accessed directly. Ports are preferred for long-term intermittent access because they have lower infection rates and require less maintenance.

17. **B. EVAR deploys a stent graft through a catheter inserted via the femoral artery without opening the abdomen; open repair requires a laparotomy** Endovascular aneurysm repair (EVAR) is a minimally invasive technique where a stent graft is advanced through a catheter inserted into the femoral artery and deployed within the aneurysm under fluoroscopic guidance. No abdominal incision is required. Open repair requires a laparotomy to directly expose and repair the aorta. These are fundamentally different approaches with different CPT codes.

18. **D. The patch graft closure (patch angioplasty) is included in the endarterectomy code** Patch angioplasty (closing the arteriotomy with a vein or synthetic patch) during a carotid endarterectomy is included in the endarterectomy code. The patch closure is considered a standard part of the surgical technique and is not separately reportable. The endarterectomy code encompasses the arteriotomy, plaque removal, and closure whether primary or with a patch.

40,000 Series — Digestive System

19. **A. It is not reported separately; it is included in the surgical colonoscopy code for EMR** When a surgical procedure (endoscopic mucosal resection) is performed during a colonoscopy, the diagnostic examination is bundled into the surgical code. Only the surgical colonoscopy code for EMR is reported. The endoscopic hierarchy applies — the diagnostic component is always included in the surgical code.

20. **C. The hernia type, initial vs. recurrent status, incarcerated vs. reducible, and the approach (open vs. laparoscopic)** CPT codes for ventral hernia repair are determined by the hernia type (ventral/incisional), whether the repair is initial or recurrent, whether the hernia is reducible or incarcerated/strangulated, and the surgical approach (open vs. laparoscopic). All of these factors affect code selection and reflect different levels of surgical complexity.

21. **B. It is not reported separately; it is included in the surgical ERCP codes** Diagnostic ERCP is bundled into surgical ERCP when surgical procedures are performed during the same session. The sphincterotomy, balloon dilation, and stone removal are each separately reportable surgical ERCP procedures with their own codes. The diagnostic examination is included and is not reported as an additional code.

22. **D. In a strangulated hernia, the blood supply to the herniated tissue is compromised; in an incarcerated hernia, the tissue is trapped but the blood supply is intact** An incarcerated hernia cannot be reduced (pushed back into the abdominal cavity) — the tissue is trapped in the hernia sac but maintains its blood supply. A strangulated hernia has compromised blood supply to the herniated tissue, which can lead to tissue necrosis and is a surgical emergency. Strangulation carries higher surgical complexity and higher CPT code values.

23. **C. It is not reported separately; it is included in the surgical EGD code for variceal banding** When a surgical procedure (band ligation of varices) is performed during an EGD, the diagnostic examination is bundled into the surgical code. Only the surgical EGD code for variceal banding is reported. The endoscopic hierarchy applies consistently across all GI endoscopy.

24. **A. Removal of the entire colon and rectum with creation of a continent internal reservoir from the ileum connected to the anus, preserving the ability to defecate without a permanent external stoma** A total proctocolectomy with ileal pouch-anal anastomosis (J-pouch) removes the entire colon and rectum. The terminal ileum is fashioned into a J-shaped reservoir that is connected to the anus, allowing the patient to defecate without a permanent external stoma. This is the preferred surgical treatment for ulcerative colitis in patients who wish to avoid a permanent ileostomy.

50,000 Series — Urinary, Reproductive, and Endocrine

25. **B. Yes; the stone extraction and the stent placement are separate procedures with separate codes** Ureteroscopic stone extraction and ureteral stent placement are distinct procedures that may

be reported separately when both are performed during the same session. The stone extraction has its own CPT code, and the stent placement has its own code. They address different clinical objectives — stone removal and ureteral drainage/protection — and are not automatically bundled.

26. **D. With the salpingectomy code and modifier 50 or RT/LT modifiers** Salpingectomy codes are unilateral. When performed bilaterally, the procedure is reported with modifier 50 (bilateral) or on separate lines with modifiers RT and LT. The bilateral modifier indicates the procedure was performed on both fallopian tubes during the same session.

27. **A. With the global vaginal delivery code; shoulder dystocia management is included in the delivery code** Shoulder dystocia is a complication of vaginal delivery that is managed as part of the delivery process. The additional maneuvers (McRoberts, suprapubic pressure, etc.) are included in the vaginal delivery code. The global code captures the complete obstetric package. However, if the shoulder dystocia required significantly more work than typical, option B (modifier 22) could also be considered. Per the answer key, option A is the designated answer, reflecting that shoulder dystocia management is part of the delivery service.

28. **C. The coding depends on whether the radical cystectomy code description includes the urinary diversion or whether separate codes are needed per CPT** CPT provides different codes for radical cystectomy depending on the type of urinary diversion performed. Some radical cystectomy codes include the urinary diversion in the code description, while others require separate coding for the diversion. The coder must read the specific code descriptions to determine whether the diversion is bundled or requires an additional code.

29. **B. TUIP makes incisions in the prostate to relieve obstruction without removing tissue; TURP resects and removes prostate tissue** Transurethral incision of the prostate (TUIP) involves making one or two incisions in the prostate to widen the prostatic urethra without removing tissue. TURP (transurethral resection of the prostate) involves resecting and removing obstructing prostate tissue using an electrosurgical loop. TUIP is typically performed on smaller prostates, while TURP is used for larger glands.

30. **D. With the completion thyroidectomy code, which is distinct from the initial total thyroidectomy code** CPT provides a specific code for completion thyroidectomy (60260), which is distinct from the initial total thyroidectomy code (60240). A completion thyroidectomy is performed after a previous lobectomy when the remaining lobe needs to be removed — typically because final pathology revealed cancer. The surgical complexity differs from a primary total thyroidectomy due to scar tissue and altered anatomy.

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

31. **A. A craniotomy — the bone flap was replaced** A craniotomy involves cutting a bone flap, performing the intracranial procedure, and replacing the bone flap at the end of surgery. Since the bone flap was replaced, this is a craniotomy — not a craniectomy (where the bone is removed

without replacement). The supratentorial location identifies the meningioma as being above the tentorium cerebelli, which affects code selection.

32. **C. It diverts aqueous humor from inside the eye to a reservoir on the surface of the eye to reduce intraocular pressure** An aqueous shunt (tube shunt) consists of a small tube inserted into the anterior chamber of the eye connected to a plate (reservoir) placed on the surface of the eye under the conjunctiva. Aqueous humor drains through the tube to the plate, where it is absorbed into surrounding tissues. This reduces intraocular pressure in glaucoma patients who have failed other treatments.

33. **D. A sympathetic block targets the autonomic sympathetic nervous system; a somatic block targets peripheral sensory or motor nerves** Sympathetic nerve blocks target the sympathetic chain ganglia of the autonomic nervous system. They are used to treat conditions mediated by sympathetic dysfunction such as complex regional pain syndrome, vascular insufficiency, and hyperhidrosis. Somatic nerve blocks target peripheral sensory or motor nerves to interrupt pain signal transmission. These are distinct nerve categories with different CPT code ranges.

34. **B. With the shunt revision code for replacement of the peritoneal (distal) catheter** VP shunt revision codes are specific to the component being replaced. Since only the peritoneal catheter was replaced while the ventricular catheter and valve were left in place, the revision code for distal catheter replacement is reported. The complete shunt creation code would be incorrect because only one component was changed.

35. **A. With code 66984 plus modifier 79 (unrelated procedure during the postoperative period) and modifier LT for the left eye** When the second eye's cataract surgery is performed during the 90-day global period of the first eye's surgery, modifier 79 is appended because the procedure on the second eye is at a separate anatomical site (different eye). Modifier LT indicates the left eye. Modifier 50 would indicate bilateral surgery in the same session. Modifier 76 would indicate a repeat on the same eye.

36. **C. A radical mastoidectomy removes the mastoid, posterior canal wall, tympanic membrane remnants, and most of the ossicular chain; a simple mastoidectomy removes only the mastoid air cells while preserving the canal wall** A radical mastoidectomy is the most extensive mastoid procedure — it removes the mastoid air cells, the posterior ear canal wall, the tympanic membrane remnants, and most of the ossicular chain, creating a large open cavity. A simple mastoidectomy removes only the mastoid air cells while preserving the canal wall, tympanic membrane, and ossicular chain. The extent of tissue removal determines the procedure type and the CPT code.

Evaluation and Management

37. **D. 99239 (discharge day management, more than 30 minutes)** Hospital discharge day management codes are based on the total time spent on discharge activities. Code 99238 covers 30 minutes or less. Code 99239 covers more than 30 minutes. The physician spent 50 minutes on

discharge activities, which exceeds 30 minutes and supports 99239. These codes are reported only on the actual day of discharge.

38. **B. 99205 (new patient, high MDM)** A new patient with high-complexity MDM — multiple acute and chronic conditions, extensive data review, and high-risk management — supports the highest new patient office visit code, 99205. This code requires high MDM or 60 minutes of total time. Code 99215 is for established patients. Code 99204 is for moderate MDM.

39. **A. Consultation codes (if the payer recognizes consultations)** This encounter meets all three consultation requirements: a written request from the PCP, evaluation and rendering of an opinion by the cardiologist, and a written report sent back to the requesting physician. If the payer recognizes consultations (some commercial payers do; Medicare does not), the consultation code set is appropriate. If the payer does not recognize consultations, the appropriate new or established patient E/M code is used instead.

40. **C. 99214 (30 minutes)** Under the time-based pathway, 99214 requires a minimum of 30 minutes of total time for an established patient. The physician spent 35 minutes, which meets and exceeds the 30-minute threshold for 99214 but does not reach the 40-minute threshold for 99215. The code reflects the highest level for which the time threshold is met.

41. **D. The endotracheal intubation is separately reportable; the chest X-ray interpretation is bundled** Endotracheal intubation (31500) is one of the procedures that is separately reportable during critical care. Chest X-ray interpretation, however, is bundled into the critical care codes (99291–99292) and cannot be reported separately. Other bundled services include pulse oximetry, ventilator management, and blood gas interpretation.

42. **B. The number and complexity of problems addressed is one of three elements that determine the MDM level** The number and complexity of problems addressed is the first of three MDM elements. The other two are the amount and complexity of data reviewed and the risk of complications and/or morbidity or mortality. Two of three elements must meet or exceed a given threshold to qualify for that MDM level. The number alone does not automatically determine the level.

Anesthesia

43. **A. 18 units** Base units (8) + Time units (150 minutes ÷ 15 minutes/unit = 10.0) + Modifying units (P2 = 0) = 18.0 total units. Physical status P2 (well-controlled hypertension and diabetes) typically does not add modifying units. The calculation: 8 + 10 + 0 = 18.

44. **C. Moderate sedation codes (99151–99157)** When the same physician performing the procedure also provides moderate (conscious) sedation, the moderate sedation codes (99151–99153 for the initial period, 99155–99157 when provided by a different physician) are used. These are distinct from standard anesthesia codes (which are reported by anesthesia professionals) and from qualifying circumstances codes (which are add-ons to anesthesia codes).

45. **D. 99140 (emergency conditions)** Qualifying circumstances code 99140 covers anesthesia provided during emergency conditions. An emergency ruptured AAA repair is an emergency procedure where delay in treatment would lead to a significant increase in threat to life. This code is reported as an add-on to the primary anesthesia code and adds modifying units to the anesthesia formula.

46. **B. Conversion factor** The conversion factor is the dollar amount that converts total anesthesia units into a payment amount. The formula is: (Base Units + Time Units + Modifying Units) × Conversion Factor = Payment. The conversion factor is published annually by CMS for Medicare and varies by payer for commercial insurance. It translates the abstract unit value into actual dollars.

Radiology

47. **C. A single combination code for CT abdomen/pelvis without contrast followed by with contrast** When a CT is performed first without contrast and then repeated with contrast during the same session, a single combination code is reported — "without contrast followed by with contrast." This combination code captures the complete dual-phase study. Two separate codes (one without, one with) are not reported.

48. **A. Modifier 26** When a radiologist provides only the interpretation and report (professional component) for an imaging study performed at an outside facility, modifier 26 is appended. The radiologist was not present at the imaging center and did not provide the technical component. The imaging center bills modifier TC for the equipment and technologist.

49. **D. Blood flow to the heart muscle at rest and during stress to detect coronary artery disease** Myocardial perfusion imaging evaluates blood flow to the heart muscle at both rest and during stress (exercise or pharmacological). Areas with reduced perfusion during stress but normal perfusion at rest indicate ischemia (reversible coronary artery disease). Areas with reduced perfusion at both rest and stress indicate scar/infarction (irreversible damage).

50. **B. SBRT delivers highly focused, high-dose radiation in a limited number of fractions (typically 3–5) to extracranial targets** Stereotactic body radiation therapy (SBRT) delivers high-dose, precisely targeted radiation in a small number of fractions (typically 3–5) to extracranial tumors such as lung, liver, and spine lesions. This contrasts with conventional radiation therapy, which delivers lower doses over many fractions (25–35) over several weeks. SBRT differs from SRS, which is typically a single fraction for intracranial targets.

51. **C. With modifier TC** The hospital provides the equipment, room, technologist, and supplies — the technical component. The hospital bills with modifier TC. The separate radiologist group provides the interpretation (professional component) and bills with modifier 26. The technical and professional components are split between two entities.

52. **A. Dosimetry (77300)** Dosimetry (77300) covers the mathematical calculation of radiation dose distribution within the patient's body. This ensures the prescribed dose is accurately delivered to the target while respecting dose limits for surrounding normal structures. Treatment planning designs the radiation fields. Treatment delivery administers the radiation. Treatment management covers the physician's ongoing supervision.

Pathology and Laboratory

53. **D. The CMP code plus the individual hemoglobin A1c code** Hemoglobin A1c (83036) is not a component of the CMP. When all panel components are performed plus an additional test not included in the panel, the panel code is reported plus the individual code for the additional test. The CMP captures the 14 bundled components, and the A1c code captures the additional analyte.

54. **B. Level IV (88305)** A lymph node biopsy is classified at Level IV surgical pathology (88305). Level IV is the most commonly reported level and covers most diagnostic biopsies including lymph node biopsy, breast biopsy, prostate needle biopsy, and skin excision. The pathologist must evaluate the tissue for architecture, cell morphology, and pathological changes to determine the diagnosis.

55. **C. All three codes — the presumptive code (one unit) plus two definitive codes (one per drug class)** Presumptive and definitive drug testing are distinct services that may both be reported when performed on the same specimen. The presumptive code (80307) is reported once per date of service. The definitive codes are reported per drug class — one for opiates (3 analytes) and one for benzodiazepines (2 analytes). All three codes capture different levels of testing.

56. **A. Modifier QW** Modifier QW (CLIA-waived test) is appended when a laboratory test is performed in a facility operating under a CLIA certificate of waiver. A rapid glucose test using a point-of-care device in a physician's office is a CLIA-waived test. The modifier tells the payer that the test qualifies for reimbursement under the waived-test category.

57. **D. The bone marrow aspiration code (38220)** When only a bone marrow aspiration is performed without a biopsy, only the aspiration code (38220) is reported. The biopsy code (38221) would be reported in addition to the aspiration only when both procedures are performed during the same session. In this case, no biopsy was performed, so only the aspiration code applies.

58. **B. Chromosomal abnormalities such as trisomy 21 (Down syndrome), translocations, and deletions visible at the chromosomal level** Karyotyping analyzes the number and structure of chromosomes to detect abnormalities visible at the chromosomal level. These include numerical abnormalities (trisomy 21/Down syndrome, trisomy 18), structural abnormalities (translocations, deletions, inversions), and sex chromosome anomalies (Turner syndrome, Klinefelter syndrome). Single gene mutations and point mutations require molecular testing, not karyotyping.

Medicine

59. **C. The chemotherapy infusion** The infusion hierarchy places chemotherapy infusion at the highest level. The chemotherapy infusion is always reported as the initial service when provided on the same date as other IV services. The IV push of the second chemotherapy agent is reported as an add-on. The hydration is reported as a secondary service. Only one initial infusion is reported per encounter.

60. **A. Four units total** For pediatric patients with physician counseling, the component-based codes are used. Tdap has 3 components: 90460 × 1 + 90461 × 2 = 3 units. Meningococcal conjugate has 1 component: 90460 × 1 = 1 unit. Total: 4 administration code units. The pediatric codes count antigen components, not injections.

61. **D. Modifier 26** When a cardiologist provides only the interpretation and report (professional component) for an echocardiogram 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.

62. **B. 2 units** Aquatic therapy (97113) is a timed therapeutic procedure reported per 15-minute unit. Thirty minutes of aquatic therapy supports 2 units (30 ÷ 15 = 2.0). Each 15-minute increment that meets the 8-minute minimum threshold qualifies for one unit. Two full 15-minute increments equal 2 units.

63. **A. 40 units of the patch testing code (95044)** Patch testing code 95044 is reported per test — each allergen patch applied constitutes one test. With 40 allergen patches, 40 units of 95044 are reported. There are no panel codes or combination codes for patch testing. Each allergen is counted individually. The 48-hour reading/interpretation is included in the code or may have its own interpretation code depending on the specific CPT guidelines.

64. **C. 90833 (30-minute add-on psychotherapy with E/M)** When a psychiatrist provides both an E/M service (medication management) and psychotherapy during the same encounter, the add-on psychotherapy codes are used. The 35 minutes of psychotherapy falls in the 16–37 minute range, corresponding to add-on code 90833 (30-minute add-on). Standalone psychotherapy codes (90832, 90834, 90837) are not used when psychotherapy accompanies an E/M service.

Medical Terminology

65. **D. Surgical puncture to aspirate fluid** The suffix "-centesis" means surgical puncture to aspirate or withdraw fluid. Common examples include thoracentesis (puncture of the chest to drain fluid), paracentesis (puncture of the abdomen to drain fluid), arthrocentesis (puncture of a joint to aspirate fluid), and amniocentesis (puncture of the amniotic sac to withdraw amniotic fluid).

66. **B. Myel/o** The combining form "myel/o" refers to both the bone marrow and the spinal cord, depending on the context. Myeloma refers to bone marrow cancer. Myelitis refers to inflammation

of the spinal cord. Myelography is imaging of the spinal cord. "Oste/o" refers to bone, "neur/o" refers to nerve, and "hem/o" refers to blood.

67. **C. Before or in front of** The prefix "ante-" means before or in front of. Common terms include antepartum (before delivery/birth), anterior (front of the body), and antenatal (before birth). "Post-" means after, "anti-" means against, and "peri-" means around.

68. **A. Surgical repair or reshaping of the nose** Rhinoplasty means surgical repair or reshaping of the nose, from the combining form "rhin/o" (nose) and the suffix "-plasty" (surgical repair). Rhinectomy would mean surgical removal of the nose. Rhinoscopy would mean visual examination of the nose. Rhinitis means inflammation of the nose.

Anatomy

69. **D. The cystic duct and the common hepatic duct** The common bile duct is formed by the junction of the cystic duct (from the gallbladder) and the common hepatic duct (from the liver). The common bile duct then carries bile to the duodenum through the ampulla of Vater. The common hepatic duct is itself formed by the junction of the left and right hepatic ducts.

70. **B. Left ventricle** The left ventricle is the most muscular chamber of the heart and pumps oxygenated blood through the aortic valve into the aorta, which distributes it to the entire systemic circulation. The right ventricle pumps deoxygenated blood to the lungs. The atria are receiving chambers. The left ventricle's thick muscular wall generates the high pressure needed to perfuse all body tissues.

71. **A. Four** The rotator cuff is composed of the tendons of four muscles: the supraspinatus, infraspinatus, teres minor, and subscapularis (remembered by the mnemonic SITS). These muscles stabilize the shoulder joint and enable rotation. The supraspinatus is the most commonly torn rotator cuff tendon. Rotator cuff repair codes are based on the type of tear (partial vs. complete) and the approach.

72. **C. Cerebellum** The cerebellum is the part of the brain primarily responsible for coordination of voluntary movement, balance, posture, and fine motor control. It is located in the posterior fossa, below the cerebral hemispheres and behind the brainstem. Cerebellar disorders result in ataxia (loss of coordination), tremor, and difficulty with balance and gait.

ICD-10-CM / Diagnosis Coding

73. **D. A (initial encounter)** The 7th character "A" indicates the initial encounter — the period during which the patient is receiving active treatment for the injury. This is the patient's first visit, and the surgeon is providing active fracture treatment. "D" (subsequent encounter) would be used for follow-up visits during healing. "S" (sequela) would be for residual conditions after healing.

74. **A. Z12.11 (Encounter for screening for malignant neoplasm of colon) as the first-listed diagnosis, with the polyp code as secondary** When a screening colonoscopy identifies and

removes a polyp, the screening Z code (Z12.11) remains the first-listed diagnosis because the screening was the reason for the encounter. The polyp code is reported as a secondary diagnosis. Medicare guidelines support this sequencing for screening colonoscopies that result in findings.

75. **B. A combination code from the diabetes category that specifies both the diabetes type and the specific manifestation** ICD-10-CM uses combination codes within the diabetes categories (E10, E11, E13) that capture both the type of diabetes and the specific manifestation in a single code. For example, E11.311 captures Type 2 diabetes with unspecified diabetic retinopathy with macular edema. Additional codes may be needed to further specify the manifestation.

76. **C. The T code for the poisoning is sequenced first, followed by the manifestation code** In ICD-10-CM poisoning coding, the T code identifying the poisoning (substance, intent, and encounter type) is sequenced first. The manifestation code (the clinical condition caused by the poisoning) is sequenced second. External cause codes may provide additional information about the circumstances. This sequencing order differs from adverse effect coding, where the manifestation is sequenced first.

77. **D. I13 (Hypertensive heart and chronic kidney disease)** When a patient has documented hypertension, heart failure, and chronic kidney disease, ICD-10-CM guidelines direct the coder to category I13 (hypertensive heart and chronic kidney disease). This combination code category captures the presumed causal relationship between hypertension and both the heart disease and the CKD. Additional codes from I50 (heart failure) and N18 (CKD stage) are also reported.

HCPCS Level II

78. **A. E0100–E9999** HCPCS Level II E-codes cover durable medical equipment including power wheelchairs, manual wheelchairs, hospital beds, oxygen equipment, CPAP devices, and other medical equipment. Power wheelchairs have specific E-codes that reflect the type and features of the wheelchair. L-codes cover orthotics/prosthetics, J-codes cover drugs.

79. **B. The provider may bill the patient for the denied service because a valid ABN was obtained** When a valid, signed ABN is in place (modifier GA appended) and Medicare denies the service, the provider may bill the patient. The patient was informed before the service that Medicare might not cover it, agreed to accept financial responsibility, and chose to proceed. Without a signed ABN (modifier GZ), the provider cannot transfer the cost to the patient.

80. **C. Modifier RT** HCPCS modifier RT indicates that a procedure was performed on the right side of the body. Modifier LT indicates the left side. These laterality modifiers are used with CPT and HCPCS codes for procedures that can be performed on either side. Modifier 50 indicates a bilateral procedure performed on both sides during the same session.

Coding Guidelines

81. **D. A modifier 51 exempt code** The circle-slash symbol (Ø) in CPT indicates a modifier 51 exempt code. These codes are not subject to the multiple procedure payment reduction and do not require

modifier 51 when reported with other procedures. They are reimbursed at 100% of their allowed amount. The filled circle (●) indicates a new code. The triangle (▲) indicates a revised description. The plus sign (+) indicates an add-on code.

82. **A. Modifier 58** Modifier 58 (staged or related procedure during the postoperative period) is appended when a planned second-stage procedure is performed during the global period of the original surgery. This includes procedures that were prospectively planned at the time of the first surgery, procedures more extensive than the original, and therapeutic procedures following a diagnostic procedure. Modifier 78 is for unplanned returns for complications.

83. **B. The modifier indicator allows a modifier to be appended to the Column 2 code to bypass the edit, but ONLY when clinical documentation supports that the procedures were truly distinct** Modifier indicator 1 permits a modifier (59 or the appropriate X modifier) to be appended — but only when the clinical documentation genuinely supports that the two procedures were distinct and independent services. Appending a modifier solely to bypass an edit without clinical justification is a compliance violation. Indicator 0 means no modifier can bypass the edit.

84. **C. Minor surgical procedures** A 10-day global period typically applies to minor surgical procedures. During the 10-day global period, routine postoperative care is included in the surgical code. An E/M service on the same day as the minor procedure requires modifier 25 if significant and separately identifiable. Major procedures typically have 90-day global periods.

85. **D. Modifier 52** Modifier 52 (reduced services) is appended when a procedure is partially completed or involves less work than the full code description implies. This tells the payer that the service was reduced and may warrant a reduced payment. Modifier 22 is for increased work. Modifier 53 is for a discontinued procedure. Modifier 59 is for distinct services.

86. **A. Appendix A** Appendix A of the CPT manual contains the complete list of modifiers with descriptions. This is the primary reference for understanding modifier definitions and applications. Appendix D lists add-on codes. Appendix C contains clinical examples. Appendix B summarizes additions, deletions, and revisions.

87. **B. Void and correct the claim before submission or submit a corrected claim to the payer** Billing a service for the wrong patient is a claim error that must be corrected. The practice should void the incorrect claim (if not yet submitted) or submit a corrected claim to the payer. Adding modifier 59 does not correct a wrong-patient error. Reporting to the OIG is not the first step for a clerical error. Billing a different patient using the same claim number is not appropriate.

Compliance and Regulatory

88. **C. Actual knowledge, deliberate ignorance, or reckless disregard of the truth or falsity of the claim** The False Claims Act's "knowingly" standard encompasses three mental states: actual knowledge (the person knows the claim is false), deliberate ignorance (the person intentionally

avoids learning the truth), and reckless disregard (the person acts without concern for whether the claim is true or false). Specific intent to defraud is not required.

89. **D. To identify coding errors, measure accuracy, detect patterns of overcoding or undercoding, and implement corrective action** Internal coding audits serve multiple compliance purposes: identifying coding errors, measuring coder accuracy rates, detecting patterns of systematic overcoding or undercoding, verifying documentation supports the codes reported, and guiding corrective action. Audits are a proactive compliance tool — they help organizations identify and fix problems before external auditors discover them.

90. **A. The conversion factor** The conversion factor is the dollar amount that converts total adjusted RVUs into a payment amount. It is updated and published by CMS annually as part of the Medicare Physician Fee Schedule. The formula is: Total Adjusted RVUs × Conversion Factor = Payment. Changes to the conversion factor directly affect physician reimbursement across all CPT codes.

Cases — Integrated Coding Scenarios

91. **B. 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. The snare polypectomy and the cold forceps biopsy polypectomy have different CPT codes reflecting different levels of complexity. Modifier 59 or XS is appended to the lesser procedure to indicate distinct techniques at different anatomical sites. The diagnostic colonoscopy is bundled.

92. **C. No; the diagnostic colonoscopy is bundled into the surgical colonoscopy codes** The diagnostic colonoscopy is always bundled into the surgical colonoscopy when surgical procedures are performed during the same session. Only the surgical codes (snare polypectomy and cold forceps biopsy polypectomy) are reported. The diagnostic examination is included in the surgical codes.

93. **D. High** Multiple chronic conditions (poorly controlled diabetes, coronary artery disease, newly diagnosed peripheral neuropathy) constitute high-level problem complexity. Extensive data review with multiple tests and outside records constitutes high-level data. A complex medication regimen with significant drug interaction risk constitutes high-level risk. All three MDM elements meet the high threshold.

94. **A. 99205 (new patient, high MDM)** A new patient with high-complexity MDM supports the highest new patient office visit code — 99205. The patient has never been seen by this physician before (new patient), and the clinical complexity warrants the highest MDM level. Code 99215 is for established patients. Code 99204 is for moderate MDM.

95. **B. A primary transforaminal injection code for the first level plus an add-on code for the additional level** Transforaminal epidural injection codes use a primary code for the first level and an add-on code for each additional level within the same spinal region. Two lumbar levels require

one primary code plus one add-on code. The imaging guidance is included in the injection codes and is not reported separately.

96. **C. Yes; both may be reported with appropriate modifiers to indicate distinct services** The transforaminal epidural injection and the facet joint injection are distinct procedures performed at different anatomical sites using different techniques. Both may be reported on the same date with modifier 59 or XS appended to the secondary procedure. They address different clinical conditions and involve different injection approaches.

97. **D. Seven units total** For pediatric patients with physician counseling, the component-based codes are used. DTaP has 3 components: 90460 × 1 + 90461 × 2 = 3 units. IPV has 1 component: 90460 × 1 = 1 unit. Hepatitis B has 1 component: 90460 × 1 = 1 unit. Total: 90460 × 3 + 90461 × 2 = 5 administration code units.

98. **A. 90460 × 1 plus 90461 × 2** DTaP contains three antigen components: diphtheria, tetanus, and pertussis. The first component is reported with 90460 × 1, and each additional component is reported with 90461. Two additional components = 90461 × 2. Total DTaP administration: 90460 × 1 + 90461 × 2 = 3 code units for the single DTaP injection.

99. **B. 1.8 cm** The excised diameter is calculated as lesion diameter plus margins on both sides: 1.2 cm + (0.3 cm × 2) = 1.8 cm. The margin is doubled because tissue is removed on all sides of the lesion. This 1.8 cm excised diameter determines the correct code within the benign excision range for the face anatomical grouping.

100. **C. Yes; intermediate and complex closures may be reported separately from excision codes** Simple closure is included in the excision code and is not reported separately. However, intermediate and complex closures require additional work beyond what the excision code encompasses and may be reported as separate services. The intermediate layered repair of the excision site is a separately reportable service coded with the appropriate intermediate repair code for the face anatomical grouping.