

# SIMULATION EXAM 18

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

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

1. A surgeon excises a 2.6 cm malignant basal cell carcinoma from the patient's left temple with 0.4 cm margins. What is the excised diameter for code selection?

- A. 2.6 cm
- B. 3.0 cm
- C. 3.4 cm
- D. 4.2 cm

2. A patient has four lacerations: a 3.0 cm simple repair on the left hand, a 4.0 cm simple repair on the right hand, a 5.0 cm intermediate repair on the right forehead, and a 2.0 cm intermediate repair on the left cheek. Both hand wounds are in the same simple repair grouping. The forehead and cheek are in the same intermediate repair grouping. How should these be reported?

- A. One simple repair code for 7.0 cm and one intermediate repair code for 7.0 cm
- B. Four separate repair codes
- C. One intermediate repair code for 14.0 cm combining all wounds
- D. One simple repair code for 7.0 cm and two separate intermediate repair codes

3. A physician performs destruction of 22 actinic keratoses on a patient's face, scalp, and arms during the same encounter. Which code should be reported?

- A.  $17000 \times 1, 17003 \times 21$
- B.  $17000 \times 22$
- C.  $17000 \times 1, 17003 \times 14$
- D. 17004

4. A surgeon performs a first-degree burn debridement and application of a biosynthetic skin substitute (dermal substitute) to a 50 sq cm wound on the patient's right anterior leg. How does a biosynthetic skin substitute differ from an autograft?

- A. A biosynthetic substitute is from the patient's own body
- B. A biosynthetic substitute is a manufactured material (synthetic or biologic-synthetic combination) used as a temporary or permanent wound covering; an autograft is the patient's own tissue
- C. There is no difference; both are identical
- D. A biosynthetic substitute is always from a cadaver donor

5. A physician performs two separate punch biopsies during the same encounter — one of a suspicious lesion on the patient's right forearm and one of a suspicious lesion on the patient's left thigh. How should the second biopsy be coded?

- A. With the primary biopsy code (11102) and modifier 59
- B. With a shave removal code
- C. With the additional lesion biopsy add-on code (11103)
- D. It is bundled into the first biopsy code

6. A surgeon performs a complex wound repair of a 12.0 cm laceration on the patient's right lower leg. The repair involves extensive debridement of contaminated tissue, creation of a limited defect for repair, extensive undermining, placement of stents, and layered closure. What makes this repair "complex" rather than "intermediate"?

- A. The wound length exceeds 10 cm

- B. The wound is on the lower leg
- C. The wound involves only layered closure
- D. The repair requires extensive debridement, undermining, stents or retention sutures, or creation of a defect for repair — techniques beyond simple layered closure

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

7. A surgeon performs arthroscopic rotator cuff repair and arthroscopic biceps tenodesis of the right shoulder during the same session. Both are surgical arthroscopic procedures. How should the diagnostic arthroscopy be coded?

- A. It is not reported separately; it is included in the surgical arthroscopy codes
- B. As a separate code with modifier 59
- C. As a separate code with modifier 51
- D. As a separate code with modifier 76

8. An orthopedic surgeon performs closed treatment of a tibial shaft fracture with manipulation and application of a long leg cast. The fracture was displaced and required reduction. What type of fracture treatment is "closed treatment with manipulation"?

- A. Open reduction with internal fixation
- B. Realignment of the fracture fragments by manual force without surgically opening the fracture site
- C. Percutaneous fixation with pins
- D. External fixation with a frame

9. A patient undergoes a three-level anterior cervical discectomy and fusion (ACDF) at C4-C5, C5-C6, and C6-C7 with interbody cages at each level and an anterior cervical plate spanning C4-C7. How should the three levels of fusion be coded?

- A. Three separate primary fusion codes
- B. One primary fusion code with modifier 22
- C. One primary fusion code and modifier 76 for each additional level
- D. One primary fusion code for the first interspace plus add-on codes for each additional interspace

10. A patient undergoes a bone biopsy of the right iliac crest. The surgeon obtains a core of bone using a Jamshidi needle inserted percutaneously. Which CPT section contains the bone biopsy code?

- A. Pathology and Laboratory section
- B. Radiology section
- C. Musculoskeletal system (20,000 series)
- D. Medicine section

11. A surgeon performs an open reduction with internal fixation of a displaced olecranon fracture and a separate open reduction with internal fixation of a displaced radial head fracture of the same elbow during the same session. How should the second fracture treatment be coded?

- A. With a separate ORIF code and modifier 51 (or appropriate modifier per NCCI guidelines)
- B. It is bundled into the first ORIF code
- C. With the first ORIF code and modifier 76
- D. With an E/M code only

12. A patient undergoes injection of hyaluronic acid (viscosupplementation) into the left knee joint. The injection code includes ultrasound guidance when performed. An additional separate E/M service is NOT performed — only the injection is done today. How should this encounter be coded?

- A. With the injection code and an E/M code with modifier 25
- B. With only the joint injection code
- C. With the E/M code only; the injection is bundled

D. With the injection code and modifier 22

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

13. A patient undergoes bronchoscopy with removal of a foreign body from the right mainstem bronchus. How should the diagnostic bronchoscopy be coded?

A. As a separate code with modifier 59

B. As a separate code with modifier 51

C. As a separate code with modifier 25

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

14. A cardiologist inserts a subcutaneous implantable cardioverter-defibrillator (S-ICD). Unlike a transvenous ICD, the S-ICD has a subcutaneous electrode that does not enter the heart. How does the S-ICD coding differ from transvenous ICD coding?

A. S-ICD and transvenous ICD use the same codes

B. S-ICD uses transvenous lead insertion codes plus a modifier

C. CPT provides separate codes for S-ICD insertion because the device and implantation technique differ from transvenous systems

D. S-ICD is coded with pacemaker codes

15. A surgeon performs a bilateral carotid body tumor excision. The carotid body tumor (paraganglioma) is located at the carotid bifurcation. These tumors are vascular and require careful dissection around the carotid artery. How should the bilateral nature be reported?

A. With the excision code and modifier 50 or RT/LT modifiers

B. With a single code and no modifier

C. With the excision code and modifier 22

D. With two separate excision codes and modifier 51

16. A patient undergoes insertion of a temporary non-tunneled femoral central venous catheter for emergent vascular access. The catheter is placed in the right femoral vein. In CPT, what factor distinguishes femoral vein catheter insertion codes from other central line codes?

A. The age of the patient

B. The insertion site — femoral vein access has specific considerations and codes

C. The catheter length

D. The type of fluid infused

17. A surgeon performs a right upper lobectomy via open thoracotomy for non-small cell lung cancer. During the same session, the surgeon performs a mediastinal lymph node dissection and a chest wall resection with reconstruction due to tumor invasion. How should the chest wall resection be coded?

A. It is included in the lobectomy code

B. With the lobectomy code and modifier 22

C. With an E/M code

D. With a separate chest wall resection code in addition to the lobectomy

18. A patient undergoes a percutaneous balloon valvuloplasty of the mitral valve for mitral stenosis. The procedure is performed via a transseptal approach from the femoral vein. What does balloon valvuloplasty accomplish?

A. It dilates a stenotic (narrowed) heart valve by inflating a balloon across the valve to increase the valve opening

B. It replaces the heart valve with a prosthetic valve

C. It repairs a regurgitant valve with a clip device

D. It permanently closes the valve

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

19. A patient undergoes a colonoscopy with biopsy of a mucosal abnormality in the ascending colon, removal of a polyp by snare technique from the transverse colon, and removal of another polyp by cold forceps technique from the sigmoid colon. Three different techniques are used. How should the procedures be coded?

- A. One code for each polyp — three polypectomy codes
- B. One diagnostic colonoscopy code plus one surgical code
- C. Three separate surgical colonoscopy codes — one for each technique (biopsy, snare, cold forceps) — with appropriate modifiers per NCCI guidelines
- D. One snare polypectomy code only; the others are bundled

20. A surgeon performs a laparoscopic total colectomy with ileorectal anastomosis for familial adenomatous polyposis (FAP). What does a total colectomy with ileorectal anastomosis accomplish?

- A. It removes the rectum and creates a permanent ileostomy
- B. It removes the entire colon while preserving the rectum and connects the terminal ileum directly to the rectum
- C. It removes only the right colon
- D. It creates an ileal pouch connected to the anus

21. A patient undergoes an EGD with endoscopic retrograde cholangiopancreatography (ERCP) during the same session. The EGD examines the esophagus, stomach, and duodenum. The ERCP catheterizes the bile duct and obtains a cholangiogram. How should the diagnostic EGD be coded?

- A. As a separate code with modifier 59
- B. As a separate code with modifier 51
- C. As a separate code with modifier 25

D. The diagnostic EGD is bundled into the ERCP when performed during the same session — the ERCP accesses the upper GI tract and the endoscopic examination is included

22. A surgeon performs an open inguinal hernia repair on a 6-month-old infant. CPT provides age-specific codes for inguinal hernia repair. Which age threshold differentiates pediatric from adult codes?

A. Under 6 months vs. 6 months and older is one threshold; additional thresholds may exist based on CPT code descriptions

B. Under 18 vs. 18 and older

C. Under 12 vs. 12 and older

D. No age threshold exists; all patients use the same codes

23. A patient undergoes a flexible sigmoidoscopy with placement of an endoscopic clip to control active bleeding from a diverticulum in the sigmoid colon. How should the diagnostic sigmoidoscopy be coded?

A. As a separate code with modifier 59

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

C. As a separate code with modifier 51

D. As a separate code with modifier 25

24. A surgeon performs a liver biopsy — a percutaneous needle biopsy of the liver 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

B. With the biopsy code and modifier 22

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

D. With a fluoroscopy code instead

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

25. A urologist performs a cystoscopy with ureteral stent removal and a separate cystoscopy with biopsy of a suspicious bladder wall lesion during the same session. The diagnostic cystoscopy is bundled. How should the two surgical procedures be coded?

- A. Only the stent removal code; the biopsy is bundled
- B. Only the biopsy code; the stent removal is bundled
- C. One code for both procedures combined
- D. Both the stent removal code and the biopsy code with appropriate modifier

26. A patient undergoes a ureteroscopy with holmium laser lithotripsy for a right proximal ureteral stone. What does holmium laser lithotripsy accomplish?

- A. It uses laser energy delivered through the ureteroscope to fragment the ureteral stone into small pieces that can be extracted or passed
- B. It uses shock waves from outside the body
- C. It dissolves the stone with medication
- D. It surgically opens the ureter to remove the stone

27. A physician provides all antepartum care, performs a vaginal delivery, and provides all postpartum care. During the delivery, the physician also performs a manual removal of a retained placenta. How should the manual placenta removal be coded?

- A. With a separate placenta removal code in addition to the global delivery code
- B. It is not coded separately; manual removal of the placenta is included in the vaginal delivery code
- C. With the delivery code and modifier 22
- D. With only the placenta removal code

28. A surgeon performs a total laparoscopic hysterectomy on a patient with a uterus weighing 400 grams. CPT differentiates hysterectomy codes based on a uterine weight threshold of 250 grams. Which weight category applies?

- A. 250 grams or less
- B. The weight does not affect code selection
- C. Greater than 500 grams
- D. Greater than 250 grams

29. A urologist performs a cystoscopy with injection of chemodenervation agent (botulinum toxin) into the bladder wall for treatment of neurogenic detrusor overactivity. The diagnostic cystoscopy is bundled. How many injection sites are typically involved?

- A. One single injection
- B. Two injections
- C. Multiple injections (typically 20–30 sites) distributed across the detrusor muscle — the code covers all injection sites regardless of number
- D. Injections are not part of this procedure

30. A surgeon performs a total thyroidectomy for a large multinodular goiter compressing the trachea. The thyroid gland weighs 180 grams. During the procedure, the surgeon identifies and preserves all four parathyroid glands. How is the parathyroid preservation coded?

- A. Parathyroid gland preservation is an expected component of thyroidectomy technique and is not separately coded
- B. With a separate parathyroid exploration code
- C. With the thyroidectomy code and modifier 22
- D. With a separate parathyroid transplantation code

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

31. A neurosurgeon performs a lumbar hemilaminotomy (partial laminectomy) at L4-L5 for excision of a herniated disc. No fusion is performed. How does a hemilaminotomy differ from a full laminectomy?

- A. A hemilaminotomy is performed through an anterior approach
- B. A hemilaminotomy removes only a portion of the lamina on one side to access the herniated disc; a full laminectomy removes the entire lamina bilaterally
- C. Both procedures are identical
- D. A hemilaminotomy always includes fusion

32. An ophthalmologist performs panretinal photocoagulation (PRP) laser treatment on the right eye for proliferative diabetic retinopathy. What does PRP accomplish?

- A. It removes the crystalline lens
- B. It inserts an intraocular lens
- C. It corrects refractive error
- D. It uses laser energy to destroy peripheral retinal tissue, reducing the ischemic drive for new abnormal blood vessel growth (neovascularization)

33. A pain management physician performs a diagnostic right L2, L3, and L4 medial branch nerve block under fluoroscopic guidance to determine if the patient is a candidate for radiofrequency ablation. The nerve block codes include imaging guidance. How should the three levels be coded?

- A. Three separate primary nerve block codes
- B. One nerve block code for all three levels combined
- C. A primary nerve block code for the first level plus add-on codes for each additional level
- D. One nerve block code with modifier 22

34. A neurosurgeon implants a permanent spinal cord stimulator system — placing percutaneous epidural electrodes and a subcutaneous pulse generator during the same session. How should this be coded?

- A. With separate codes for the electrode placement and the generator implantation — component-based coding
- B. With a single complete system code
- C. With only the electrode code; the generator is bundled
- D. With only the generator code; the electrodes are bundled

35. An otolaryngologist performs a cochlear implant on the right ear. The procedure involves a mastoidectomy approach, placement of the internal receiver-stimulator, and insertion of the electrode array. How should the cochlear implant be coded?

- A. Three separate codes for each component
- B. With a single code (69930) that covers the complete cochlear device implantation including the mastoidectomy approach
- C. Two codes — one for the mastoidectomy and one for the device
- D. With the mastoidectomy code only

36. An ophthalmologist performs a YAG laser peripheral iridotomy on the left eye for treatment of acute angle-closure glaucoma. What does this procedure accomplish?

- A. It removes a cataract
- B. It reattaches the retina
- C. It corrects refractive error
- D. It creates a small hole in the peripheral iris to allow aqueous humor to flow from the posterior chamber to the anterior chamber, relieving the pupillary block causing the angle closure

### Evaluation and Management (Questions 37–42)

37. An established patient presents to the office with multiple chronic conditions — diabetes with new nephropathy, hypertension requiring medication change, and heart failure with worsening symptoms. The physician orders labs, adjusts three medications (one requiring intensive monitoring), and arranges a cardiology referral. What level of MDM does this support?

- A. Straightforward
- B. Low
- C. High
- D. Moderate

38. A physician provides the initial evaluation of a newborn infant in the hospital on the date of birth. The newborn is healthy with no complications. Which E/M code set should be used?

- A. Initial newborn care codes (99460–99463)
- B. Office visit codes for new patients
- C. Critical care codes
- D. Neonatal intensive care codes

39. A patient is admitted to the hospital on Monday by Physician A. On Tuesday, Physician A requests a consultation from Physician B (a specialist). Physician B evaluates the patient, renders an opinion, and sends a report. On Wednesday, Physician B returns to see the patient for a follow-up visit. How should Physician B code Wednesday's visit?

- A. With a second consultation code
- B. With a subsequent hospital care code (99231–99233)
- C. With an initial hospital care code
- D. With an ED visit code

40. An established patient presents to the office. The total time on the date of the encounter is 60 minutes. Using the time-based pathway, which code(s) should be reported?

- A. 99214 (30 minutes) only
- B. 99215 (40 minutes) only
- C. 99213 (20 minutes) plus 99417 × 2
- D. 99215 (40 minutes) plus 99417 × 1 (15 additional minutes beyond the 40-minute threshold, with the remaining 5 minutes not meeting the threshold for a second unit)

41. A physician provides critical care services to a critically ill patient in the ICU. Total critical care time is 45 minutes. How should this be coded?

- A. 99291 × 1 plus 99292 × 1
- B. 99232 (subsequent hospital care)
- C. 99291 × 1 only (first 30–74 minutes)
- D. 99233 (subsequent hospital care, high complexity)

42. Under the current E/M guidelines, which statement accurately describes the role of history in office visit code selection?

- A. A medically appropriate history must be performed, but it does not determine the code level — MDM or total time determines the level
- B. A comprehensive history is required for all level 4 and 5 visits
- C. The 1995 or 1997 documentation guidelines for history must be followed
- D. No history is required for established patient visits

### Anesthesia (Questions 43–46)

43. An anesthesiologist provides general anesthesia for a total abdominal hysterectomy on a 48-year-old patient with well-controlled asthma and mild obesity (P2). Total anesthesia time is 135 minutes. The payer uses 15-minute time units and assigns no modifying units for P2. Base units are 6. What is the total unit calculation?

- A. 14 units
- B. 15 units
- C. 16 units
- D. 13 units

44. An anesthesiologist provides anesthesia for a patient undergoing a total shoulder replacement. Before the procedure, the anesthesiologist places an interscalene brachial plexus nerve block for postoperative pain management. The nerve block is administered before general anesthesia induction. How should the nerve block be coded?

- A. It is included in the general anesthesia code
- B. With modifier 22 on the anesthesia code
- C. With an epidural catheter code
- D. With the appropriate nerve block code as a separate service from the general anesthesia

45. A patient is classified as physical status P5. What does this indicate?

- A. A patient with mild systemic disease
- B. A normal healthy patient
- C. A moribund patient who is not expected to survive without the operation
- D. A patient with severe systemic disease

46. An anesthesiologist medically directs four concurrent CRNA cases simultaneously. Under Medicare medical direction rules, what is the maximum number of concurrent cases an anesthesiologist may medically direct?

- A. Four cases
- B. Two cases
- C. Six cases
- D. Eight cases

**Radiology (Questions 47–52)**

47. A patient undergoes a CT of the chest with IV contrast to evaluate a mediastinal mass. An additional CT of the abdomen and pelvis with IV contrast is also performed during the same session to evaluate for potential metastatic disease. How should these be coded?

- A. One CT code covering all three body regions
- B. Separate CT codes for the chest and for the abdomen/pelvis — each region has its own code
- C. One CT code for the most comprehensive study only
- D. One CT code with modifier 22

48. A radiologist at a hospital interprets a portable chest X-ray performed on an ICU patient. The hospital owns the portable X-ray equipment and employs the radiology technologist. The radiologist is employed by an independent radiology group. How should the radiologist bill?

- A. With the global X-ray code
- B. With modifier TC
- C. With no modifier
- D. With modifier 26

49. A patient undergoes a nuclear medicine parathyroid scan (sestamibi scan) to localize a parathyroid adenoma before surgery. What does a parathyroid sestamibi scan accomplish?

- A. It measures parathyroid hormone levels
- B. It evaluates thyroid function
- C. It identifies the location of hyperfunctioning parathyroid tissue by detecting increased uptake of the radiotracer in the adenoma
- D. It evaluates bone density

50. In radiation oncology, which service involves the use of a CT scanner or simulator to determine the exact location and positioning of the patient for radiation treatment?

- A. Treatment simulation (77280–77295)
- B. Treatment delivery (77385–77386)
- C. Treatment management (77427)
- D. Dosimetry (77300)

51. A patient undergoes a screening mammogram. A suspicious finding is identified, and the radiologist recommends additional diagnostic views. The additional diagnostic mammogram is performed on the same day. How should both studies be coded?

- A. Only the screening mammogram code
- B. Only the diagnostic mammogram code; the screening is bundled
- C. Both the screening mammogram and the diagnostic mammogram are separately coded when performed on the same date based on different clinical indications
- D. The screening mammogram code with modifier 22

52. A patient undergoes an ultrasound-guided thoracentesis. The thoracentesis code includes the ultrasound guidance. A separate diagnostic chest ultrasound is also performed during the same encounter to evaluate the pleural effusion before the thoracentesis. How should the diagnostic ultrasound be coded?

- A. It is included in the thoracentesis code
- B. With a separate diagnostic chest ultrasound code — the pre-procedure diagnostic study is distinct from the procedural guidance
- C. With the thoracentesis code and modifier 22
- D. With a fluoroscopy code

### **Pathology and Laboratory (Questions 53–58)**

53. A physician orders a basic metabolic panel (BMP) and a hepatic function panel on the same specimen. Both panels include albumin. How should the overlapping albumin be handled?

- A. A separate albumin code is reported in addition to both panels
- B. One panel is downgraded to individual component codes
- C. The overlapping albumin is included in each panel code; it is NOT reported as a separate individual code in addition to both panels
- D. Only one panel can be reported; the second is bundled

54. A pathologist examines a total mastectomy specimen from a patient with invasive breast cancer. The examination includes evaluation of all surgical margins. At which level of surgical pathology is a total mastectomy classified?

- A. Level VI (88309)
- B. Level IV (88305)
- C. Level III (88304)
- D. Level V (88307)

55. A laboratory performs a blood culture — two sets (aerobic and anaerobic bottles from two separate venipuncture sites) for a patient with suspected sepsis. How should the blood cultures be coded?

- A. One culture code regardless of the number of sets
- B. One culture code per bottle (four total)
- C. One culture code with modifier 22
- D. One culture code per set or per source — the specific coding depends on CPT guidelines for blood culture reporting

56. A patient undergoes a molecular pathology test — a single gene analysis for BRAF V600E mutation on a melanoma specimen to guide targeted therapy. Where are molecular pathology codes located in CPT?

- A. In the Chemistry section
- B. In the Molecular Pathology section of the Pathology and Laboratory chapter
- C. In the Medicine section
- D. In the Surgery section

57. A pathologist performs special stains on a liver biopsy specimen: trichrome, iron stain, reticulin, and PAS — four different stains. The pathologist also performs immunohistochemistry with 2 antibodies (CK7 and CK20). How should the IHC be coded?

- A. 88342 × 2
- B. One IHC panel code
- C. 88342 × 1 for the first antibody plus 88341 × 1 for the additional antibody
- D. 88341 × 2

58. A laboratory performs a comprehensive urine drug screen using an immunoassay instrument chemistry analyzer (80307). The screen tests for 14 drug classes. How many units of 80307 should be reported?

- A. 14 units, one per drug class
- B. 7 units
- C. One unit per date of service
- D. One unit per date of service regardless of the number of drug classes tested

**Medicine (Questions 59–64)**

59. A patient receives a 90-minute IV infusion of a non-chemotherapy therapeutic drug (infliximab for Crohn's disease) as the only IV service during the encounter. How should this be coded?

- A. 96365 × 1 (initial hour) plus 96366 × 1 (additional 30 minutes)
- B. 96413 × 1 plus 96415 × 1 (chemotherapy codes)
- C. 96360 × 1 plus 96361 × 1 (hydration codes)
- D. 96365 × 1 only (initial hour)

60. A 3-year-old patient receives three vaccine injections at a well-child visit: MMR (3 components), varicella (1 component), and hepatitis A (1 component). The pediatrician provides face-to-face counseling about each vaccine. How many total administration code units should be reported?

- A. Three units: 90471 × 1 plus 90472 × 2
- B. Five units: 90460 × 3 (first component of each vaccine) plus 90461 × 2 (additional MMR components) = 5 total administration code units
- C. Three units: 90460 × 3
- D. Nine units: 90461 × 9

61. A patient undergoes a transesophageal echocardiogram (TEE) with Doppler and color flow as a diagnostic study (not intraoperative). The cardiologist performs and interprets the study in the hospital echocardiography lab using hospital-owned equipment. The cardiologist is employed by a separate cardiology group. How should the cardiologist bill?

- A. With the global TEE code
- B. With modifier TC
- C. With modifier 26
- D. With no modifier

62. A therapist provides 8 minutes of electrical stimulation (constant attendance modality, 97032), 20 minutes of therapeutic exercise (97110), and 15 minutes of therapeutic activities (97530) during the same session. Using the 8-minute rule, how many total timed units are reported?

- A. 2 units
- B. 4 units
- C. 1 unit
- D. 3 units — total treatment time of 43 minutes supports 3 timed units ( $43 \div 15 = 2.87$ , rounded based on allocation)

63. A cardiologist performs a diagnostic cardiac catheterization with selective coronary angiography. During the same session, the cardiologist also performs a left ventriculogram. CPT provides codes that include the ventriculogram with the catheterization. How should the ventriculogram be coded?

- A. It is included in the left heart catheterization/coronary angiography code when the code description specifically includes ventriculography
- B. With a separate ventriculogram code and modifier 59
- C. With a separate ventriculogram code and modifier 51
- D. With the catheterization code and modifier 22

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

- A. 60 units of the percutaneous code
- B. 50 units of the percutaneous testing code (95004) plus 10 units of the intradermal testing code (95024 or 95017 depending on allergen type)
- C. One allergy panel code
- D. 60 units of the intradermal code

**Medical Terminology (Questions 65–68)**

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

- A. Inflammation
- B. Surgical repair
- C. Visual examination
- D. Surgical removal or excision

66. Which combining form refers to the lung?

- A. Hepat/o
- B. Ren/o
- C. Pulmon/o or pneum/o
- D. Cardi/o

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

- A. Painful, difficult, or abnormal
- B. Normal
- C. Excessive
- D. Without

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

- A. Visual examination of the gallbladder
- B. Surgical removal of the gallbladder
- C. Inflammation of the gallbladder
- D. Surgical repair of the gallbladder

**Anatomy (Questions 69–72)**

69. The femoral triangle is an anatomical space in the upper thigh that contains which three major structures?

- A. The sciatic nerve, gluteal artery, and piriformis muscle
- B. The ulnar nerve, brachial artery, and median nerve
- C. The popliteal artery, tibial nerve, and popliteal vein
- D. The femoral nerve, femoral artery, and femoral vein

70. Which organ is responsible for filtering blood, producing urine, and maintaining electrolyte balance?

- A. The liver

- B. The spleen
- C. The kidney
- D. The pancreas

71. The circle of Willis is an important arterial anastomosis located at the base of the brain. What is its primary function?

- A. To provide collateral blood flow to the brain — if one supplying artery is blocked, blood can flow through the circle to maintain cerebral perfusion
- B. To drain venous blood from the brain
- C. To produce cerebrospinal fluid
- D. To regulate intracranial pressure

72. The left recurrent laryngeal nerve loops around which anatomical structure before ascending to the larynx?

- A. The right subclavian artery
- B. The aortic arch (specifically the ligamentum arteriosum)
- C. The thyroid gland
- D. The trachea

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

73. A patient presents with acute on chronic systolic heart failure. Under ICD-10-CM, how should the heart failure be coded?

- A. I50.9 (Heart failure, unspecified)
- B. I50.22 (Chronic systolic heart failure)

- C. I50.21 (Acute systolic heart failure)
- D. I50.23 (Acute on chronic systolic heart failure)

74. A patient undergoes a right hip arthroplasty for avascular necrosis (osteonecrosis) of the right femoral head. Which ICD-10-CM code category covers avascular necrosis?

- A. M16 (Osteoarthritis of hip)
- B. S72 (Fracture of femur)
- C. M87 (Osteonecrosis)
- D. Z96 (Presence of artificial joint)

75. In ICD-10-CM, a patient is diagnosed with community-acquired pneumonia caused by *Streptococcus pneumoniae*. How should the pneumonia be coded?

- A. With a code from J13 (Pneumonia due to *Streptococcus pneumoniae*)
- B. J18.9 (Pneumonia, unspecified) only
- C. J15.9 (Bacterial pneumonia, unspecified)
- D. Z87.01 (Personal history of pneumonia)

76. A patient is treated for a traumatic subdural hematoma of the brain. This is the initial encounter with active treatment. Which ICD-10-CM code captures the intracranial injury?

- A. S06.5 (Traumatic subdural hemorrhage) with 7th character A
- B. S06.5 with 7th character A for initial encounter
- C. I62 (Nontraumatic subdural hemorrhage)
- D. S06.5 with 7th character D

77. A coder is assigning a diagnosis for a patient with documented GERD (gastroesophageal reflux disease) with esophagitis. Which ICD-10-CM code captures this condition?

- A. K21.9 (Gastro-esophageal reflux disease without esophagitis)
- B. K20.9 (Esophagitis, unspecified)
- C. K22.2 (Esophageal obstruction)
- D. K21.0 (Gastro-esophageal reflux disease with esophagitis)

**HCPCS Level II (Questions 78–80)**

78. A patient receives an infusion of nivolumab (Opdivo) 240 mg IV for treatment of advanced melanoma. The HCPCS J-code for nivolumab specifies 1 mg per unit. How many units should be reported?

- A. 24 units
- B. 1 unit
- C. 240 units
- D. 2 units

79. A Medicare patient requires a continuous positive airway pressure (CPAP) device for treatment of obstructive sleep apnea. Which HCPCS Level II code range covers CPAP devices?

- A. E0601 (within the E-code range for respiratory DME)
- B. J0000–J9999
- C. L0000–L9999
- D. A4000–A8999

80. A provider performs a service on a Medicare patient. The service is a statutory exclusion — Medicare does not cover it by law. Which HCPCS modifier should be appended?

- A. Modifier GA
- B. Modifier GY
- C. Modifier GZ
- D. Modifier QW

**Coding Guidelines (Questions 81–87)**

81. A surgeon performs a diagnostic cystoscopy and identifies a ureteral stone. The surgeon then performs a cystoscopy with ureteroscopy and laser lithotripsy. How should the diagnostic cystoscopy be coded?

- A. As a separate code with modifier 59
- B. As a separate code with modifier 51
- C. As a separate code with modifier 25
- D. It is not reported separately; it is bundled into the surgical cystoscopy/ureteroscopy code

82. A patient undergoes an unrelated surgical procedure during the 90-day global period of a previous surgery. The new procedure is completely unrelated to the original surgery. Which modifier should be appended to the new procedure code?

- A. Modifier 58
- B. Modifier 78
- C. Modifier 79
- D. Modifier 24

83. Under the NCCI, which X modifier indicates that the two services represent unusual non-overlapping services that would not normally be reported together but are appropriate in this specific clinical circumstance?

- A. Modifier XU (Unusual Non-Overlapping Service)
- B. Modifier XE (Separate Encounter)
- C. Modifier XS (Separate Structure)
- D. Modifier XP (Separate Practitioner)

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

- A. The code has a 90-day global period
- B. The global period is set by the individual MAC (carrier-priced)
- C. The code has a 0-day global period
- D. The global period does not apply

85. Which of the following correctly describes the purpose of modifier 77 (repeat procedure by a different physician)?

- A. It indicates the procedure was reduced in scope
- B. It indicates a bilateral procedure
- C. It indicates a staged procedure
- D. It indicates that a different physician repeats the same procedure on the same patient on the same day

86. In CPT, the triangle symbol (▲) next to a code indicates which of the following?

- A. The code is new for the current edition
- B. The code is an add-on code

- C. The code description has been revised since the previous edition
- D. The code has been deleted

87. A surgeon performs a laparoscopic cholecystectomy. During the procedure, severe inflammation is encountered, and the surgeon converts to an open cholecystectomy. How should this be coded?

- A. With only the open cholecystectomy code; the abandoned laparoscopic approach is not separately coded
- B. With both the laparoscopic and open cholecystectomy codes
- C. With the laparoscopic code and modifier 22
- D. With the laparoscopic code and modifier 53 plus the open code

**Compliance and Regulatory (Questions 88–90)**

88. Under HIPAA, the Security Rule specifically addresses the protection of which type of health information?

- A. All paper health records
- B. Electronic protected health information (ePHI)
- C. Only verbal communications
- D. Only billing records

89. A compliance program includes seven recommended elements according to the OIG. Which of the following is NOT one of the seven elements?

- A. Designation of a compliance officer
- B. Development of compliance policies and procedures
- C. Training and education

D. Guaranteed immunity from all government audits

90. Under the Medicare Physician Fee Schedule, the RBRVS payment formula is:  $\text{Payment} = (\text{Work RVU} \times \text{Work GPCI} + \text{PE RVU} \times \text{PE GPCI} + \text{PLI RVU} \times \text{PLI GPCI}) \times \text{Conversion Factor}$ . What does the GPCI component accomplish in this formula?

- A. It determines the base unit values for anesthesia
- B. It establishes the number of RVUs for each code
- C. It adjusts the national RVU values for geographic cost differences in each Medicare locality
- D. It converts RVUs into a dollar amount

### Cases — Integrated Coding Scenarios (Questions 91–100)

#### Case 1 (Questions 91–92):

**A 45-year-old patient undergoes excision of a 1.0 cm malignant squamous cell carcinoma from the vermilion border of the lower lip with 0.5 cm margins. The wound is closed with adjacent tissue transfer (V-Y advancement flap) measuring 6 sq cm.**

91. How should the excision be coded?

- A. It is not coded separately; the excision is included in the adjacent tissue transfer code
- B. With a separate malignant excision code and modifier 59
- C. With a separate benign excision code
- D. With the adjacent tissue transfer code and modifier 22

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

- A. With a free skin graft code

- B. With a wound repair code
- C. With the excision code only
- D. With the adjacent tissue transfer code for the face based on defect size in square centimeters

**Case 2 (Questions 93–94):**

**A 75-year-old patient undergoes a left total knee arthroplasty for severe osteoarthritis. The anesthesiologist provides general anesthesia. Total anesthesia time is 180 minutes. The patient is classified as P3 (severe COPD on home oxygen, coronary artery disease with prior stent). The payer uses 15-minute time units and assigns 1 modifying unit for P3. Base units are 7. The patient qualifies for 99100 (extreme age — over 70).**

93. What is the total anesthesia unit calculation WITHOUT the qualifying circumstances?

- A. 19 units
- B. 20 units
- C. 18 units
- D. 21 units

94. If the payer assigns 1 unit for qualifying circumstances code 99100 (extreme age), what is the TOTAL unit calculation including all components?

- A. 20 units
- B. 19 units
- C. 21 units
- D. 22 units

**Case 3 (Questions 95–96):**

**A patient receives IV services during a single outpatient encounter: a 2-hour IV infusion of paclitaxel (chemotherapy agent), an IV push of ondansetron (non-chemotherapy antiemetic), 30 minutes of IV hydration with normal saline, and an IV push of dexamethasone (non-chemotherapy pre-medication).**

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

- A. The paclitaxel chemotherapy infusion
- B. The IV hydration
- C. The ondansetron IV push
- D. Each service is a separate initial service

96. The hydration lasted 30 minutes. Since chemotherapy is the initial service, how should the hydration be coded?

- A. As the initial hydration code (96360)
- B. It cannot be reported when chemotherapy is given
- C. With the hydration code and modifier 59
- D. As a secondary/sequential hydration service using the appropriate add-on code

**Case 4 (Questions 97–98):**

**A surgeon performs a right carotid endarterectomy. The surgeon provides all preoperative, surgical, and postoperative care. Three weeks after surgery (during the 90-day global period), the patient develops a wound hematoma at the surgical site requiring an unplanned return to the operating room for evacuation.**

97. The hematoma evacuation is a complication requiring an unplanned return to the OR during the global period. Which modifier should be appended to the hematoma evacuation code?

- A. Modifier 79
- B. Modifier 78
- C. Modifier 58
- D. Modifier 24

98. The surgeon provides all components of care for the original endarterectomy. How should the primary endarterectomy be coded?

- A. With modifier 54
- B. With modifier 55
- C. With the complete global package — no splitting modifiers
- D. With modifier 22

**Case 5 (Questions 99–100):**

**A 65-year-old Medicare patient presents for a screening colonoscopy. The gastroenterologist identifies a 2.5 cm sessile polyp in the cecum and removes it using endoscopic mucosal resection (EMR). A second 0.5 cm polyp in the sigmoid colon is removed using cold forceps biopsy technique.**

99. How should the two polyp removals be coded?

- A. One EMR code and one cold forceps biopsy polypectomy code with appropriate modifier
- B. One EMR code only; the biopsy is bundled
- C. Two EMR codes
- D. One diagnostic colonoscopy code plus one polypectomy code

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

- A. K63.5 (Polyp of colon)
- B. R19.5 (Other fecal abnormalities)
- C. Z80.0 (Family history of malignant neoplasm of digestive organs)
- D. Z12.11 (Encounter for screening for malignant neoplasm of colon)

# SIMULATION EXAM 18 — ANSWER

## KEY WITH EXPLANATIONS

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### 10,000 Series — Integumentary System

1. **C. 3.4 cm** The excised diameter is calculated as lesion diameter plus margins on both sides:  $2.6 \text{ cm} + (0.4 \text{ cm} \times 2) = 3.4 \text{ cm}$ . The margin is doubled because normal tissue is removed circumferentially around the entire lesion. This 3.4 cm excised diameter determines the correct code within the malignant excision range for the temple/face anatomical grouping.
2. **A. One simple repair code for 7.0 cm and one intermediate repair code for 7.0 cm** Wounds of the same classification in the same anatomical grouping are combined. The two simple repairs on the hands ( $3.0 + 4.0 = 7.0 \text{ cm}$ ) are in the same grouping and same classification. The two intermediate repairs on the forehead and cheek ( $5.0 + 2.0 = 7.0 \text{ cm}$ ) are in the same face grouping and same classification. Different classifications are reported separately — two codes total.
3. **D. 17004** When 15 or more actinic keratoses are destroyed, only the flat code 17004 is reported. At 22 lesions, the threshold of 15 or more is clearly met. This single code replaces all other codes in the premalignant destruction series. Codes 17000 and 17003 are not reported in addition to 17004.
4. **B. A biosynthetic substitute is a manufactured material (synthetic or biologic-synthetic combination) used as a temporary or permanent wound covering; an autograft is the patient's own tissue** Biosynthetic skin substitutes are manufactured products that combine synthetic and/or biological materials to serve as wound coverings. They differ from autografts (patient's own tissue), allografts (human donor tissue), and xenografts (animal tissue). CPT provides specific codes for skin substitute graft application that are different from autograft codes.
5. **C. With the additional lesion biopsy add-on code (11103)** CPT provides a primary biopsy code for the first lesion (11102) and an add-on code for each additional lesion biopsied during the same encounter (11103). The second punch biopsy at a different site is reported with the add-on code. The add-on structure captures the additional work without requiring modifier 59.
6. **D. The repair requires extensive debridement, undermining, stents or retention sutures, or creation of a defect for repair — techniques beyond simple layered closure** Complex repair involves techniques that go beyond the layered closure of intermediate repair. These include extensive debridement of heavily contaminated wounds, creation of a limited defect for repair, extensive undermining, placement of stents or retention sutures, and other advanced closure

techniques. The wound length and location alone do not determine the classification — the repair technique does.

## **20,000 Series — Musculoskeletal System**

7. **A. 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 rotator cuff repair and biceps tenodesis are both surgical procedures — the diagnostic examination is included. Both surgical codes may be reported with appropriate modifiers per NCCI guidelines.
8. **B. Realignment of the fracture fragments by manual force without surgically opening the fracture site** Closed treatment with manipulation involves the physician applying manual force to realign displaced fracture fragments without making a surgical incision. The fracture site is not directly visualized. Fluoroscopy may be used to confirm reduction. This approach is used for fractures that can be adequately reduced by external manipulation.
9. **D. One primary fusion code for the first interspace plus add-on codes for each additional interspace** Spinal fusion codes use a primary code for the first interspace and add-on codes for each additional level. Three levels (C4-C5, C5-C6, C6-C7) require one primary code plus two add-on codes. The instrumentation (plate) and interbody devices (cages) are coded separately as additional components.
10. **C. Musculoskeletal system (20,000 series)** Bone biopsy codes are located in the musculoskeletal system section of CPT. Percutaneous bone biopsy using a needle (such as a Jamshidi needle) has its own code. The biopsy specimen is then sent to pathology for examination — the pathological examination is coded separately by the pathologist.
11. **A. With a separate ORIF code and modifier 51 (or appropriate modifier per NCCI guidelines)** The olecranon fracture and the radial head fracture are two distinct fractures at different anatomical sites within the same elbow, each requiring separate ORIF. Both fracture treatment codes are reported with modifier 51 on the secondary procedure. The coder should verify NCCI edits to confirm both are separately reportable.
12. **B. With only the joint injection code** When only a joint injection is performed and no separate E/M service is provided, only the injection code is reported. An E/M code is not reported unless a significant, separately identifiable evaluation is performed beyond the standard pre-injection assessment. The injection code alone captures the service when the encounter is solely for the injection.

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

13. **D. It is not reported separately; it is included in the surgical bronchoscopy code** Diagnostic bronchoscopy is bundled into surgical bronchoscopy when both are performed during the same

session. The foreign body removal is a surgical bronchoscopic procedure — the diagnostic examination is included and is not separately reportable.

14. **C. CPT provides separate codes for S-ICD insertion because the device and implantation technique differ from transvenous systems** The subcutaneous ICD uses a completely different implantation technique — the electrode is placed subcutaneously along the sternum rather than through veins into the heart. CPT provides specific codes for S-ICD generator and electrode insertion that are distinct from transvenous ICD codes. The device type and surgical approach determine the code selection.
15. **A. With the excision code and modifier 50 or RT/LT modifiers** Carotid body tumor excision codes are unilateral. When performed bilaterally, the procedure is reported with modifier 50 or on separate lines with RT and LT modifiers. Bilateral carotid body tumors are uncommon but require bilateral reporting when surgically excised.
16. **B. The insertion site — femoral vein access has specific considerations and codes** Central venous catheter insertion codes are differentiated by several factors including the insertion site. Femoral vein catheterization has specific coding considerations because it involves a different anatomical approach and has different clinical implications (higher infection rates, less ideal for long-term access) compared to internal jugular or subclavian access.
17. **D. With a separate chest wall resection code in addition to the lobectomy** Chest wall resection with reconstruction for tumor invasion is a separate surgical procedure from the lobectomy — it addresses a different anatomical structure and a different surgical objective. Both the lobectomy and the chest wall resection codes are reported. The mediastinal lymph node dissection is also separately coded.
18. **A. It dilates a stenotic (narrowed) heart valve by inflating a balloon across the valve to increase the valve opening** Percutaneous balloon valvuloplasty involves advancing a balloon catheter to the stenotic valve and inflating the balloon to forcibly open the narrowed valve. This increases the effective valve orifice area and improves blood flow. It is a palliative procedure commonly used for mitral stenosis and as a bridge therapy for aortic stenosis.

#### **40,000 Series — Digestive System**

19. **C. Three separate surgical colonoscopy codes — one for each technique (biopsy, snare, cold forceps) — with appropriate modifiers per NCCI guidelines** When three different techniques are used to remove lesions during the same colonoscopy, each technique is reported with its own code. The biopsy, snare polypectomy, and cold forceps polypectomy have different CPT codes. Appropriate modifiers (59 or XS) are appended to distinguish the separate services. The diagnostic colonoscopy is bundled.
20. **B. It removes the entire colon while preserving the rectum and connects the terminal ileum directly to the rectum** A total colectomy with ileorectal anastomosis removes the entire colon

(cecum through sigmoid) while preserving the rectum. The terminal ileum is connected directly to the rectum, restoring intestinal continuity. This allows the patient to defecate through the natural route without an external stoma. The preserved rectum is monitored for polyp development in FAP patients.

21. **D. The diagnostic EGD is bundled into the ERCP when performed during the same session** ERCP inherently involves passage of an endoscope through the upper GI tract. When both an EGD and ERCP are performed during the same session, the upper GI examination is included in the ERCP. A separate diagnostic EGD code is not reported because the endoscopic visualization of the esophagus, stomach, and duodenum is integral to the ERCP approach.
22. **A. Under 6 months vs. 6 months and older is one threshold; additional thresholds may exist based on CPT code descriptions** CPT provides age-specific codes for inguinal hernia repair with different thresholds. Pediatric codes distinguish between patients under 6 months and those 6 months to under 5 years, with additional considerations. The coder must read the specific code descriptions to identify the applicable age ranges. Adult codes apply to older patients.
23. **B. It is not reported separately; it is included in the surgical sigmoidoscopy code** When a surgical procedure (endoscopic clip placement for hemostasis) is performed during a sigmoidoscopy, the diagnostic examination is bundled into the surgical code. Only the surgical sigmoidoscopy code is reported.
24. **C. With a separate ultrasound guidance code in addition to the biopsy code** When the liver biopsy code does NOT include ultrasound guidance and guidance is used, a separate guidance code is reported. The coder must always verify whether the procedure code includes imaging guidance before reporting a separate guidance code.

#### **50,000 Series — Urinary, Reproductive, and Endocrine**

25. **D. Both the stent removal code and the biopsy code with appropriate modifier** The ureteral stent removal and the bladder wall biopsy are two distinct surgical procedures performed at different sites during the same cystoscopic session. Both may be reported with appropriate modifiers (59 or XS) to indicate distinct services. The diagnostic cystoscopy is bundled into the surgical codes.
26. **A. It uses laser energy delivered through the ureteroscope to fragment the ureteral stone into small pieces that can be extracted or passed** Holmium laser lithotripsy involves directing holmium laser energy through a fiber passed through the ureteroscope at the ureteral stone. The laser fragments the stone into small pieces that are then extracted with a basket or allowed to pass spontaneously. This is an intracorporeal lithotripsy technique — performed inside the body through the ureteroscope.
27. **B. It is not coded separately; manual removal of the placenta is included in the vaginal delivery code** Manual removal of a retained placenta is considered part of the delivery service and

is included in the vaginal delivery code. The delivery code encompasses the complete delivery process including management of the placenta. A separate code for placenta removal is not reported in addition to the delivery code.

28. **D. Greater than 250 grams** A uterine weight of 400 grams exceeds the 250-gram threshold. CPT differentiates laparoscopic hysterectomy codes based on whether the uterus weighs 250 grams or less versus greater than 250 grams. The higher weight category reflects greater surgical complexity.
29. **C. Multiple injections (typically 20–30 sites) distributed across the detrusor muscle — the code covers all injection sites regardless of number** Botulinum toxin injection into the detrusor muscle for neurogenic overactive bladder involves multiple injection sites (typically 20–30) distributed across the bladder wall using a cystoscopic needle. The CPT code covers all injection sites regardless of the number — it is a single procedure code for the complete injection session.
30. **A. Parathyroid gland preservation is an expected component of thyroidectomy technique and is not separately coded** Identification and preservation of the parathyroid glands during thyroidectomy is a standard component of the surgical technique — not a separate procedure. It is expected that the surgeon will identify and preserve the parathyroids during any thyroidectomy. No separate code is reported for parathyroid preservation. A separate code would only apply if parathyroid autotransplantation is performed.

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

31. **B. A hemilaminotomy removes only a portion of the lamina on one side to access the herniated disc; a full laminectomy removes the entire lamina bilaterally** A hemilaminotomy is a more limited decompression — it removes only a portion of the lamina on one side, creating a window to access and remove the herniated disc. A full laminectomy removes the entire lamina on both sides, providing wider decompression but removing more structural bone. The less invasive hemilaminotomy preserves more spinal stability.
32. **D. It uses laser energy to destroy peripheral retinal tissue, reducing the ischemic drive for new abnormal blood vessel growth (neovascularization)** Panretinal photocoagulation applies hundreds to thousands of laser burns to the peripheral retina, deliberately destroying ischemic retinal tissue. This reduces the production of vascular endothelial growth factor (VEGF) that drives the growth of fragile new blood vessels (neovascularization) in proliferative diabetic retinopathy. PRP helps prevent vitreous hemorrhage and tractional retinal detachment.
33. **C. A primary nerve block code for the first level plus add-on codes for each additional level** Paravertebral facet medial branch nerve block codes use a primary code for the first level and add-on codes for each additional level within the same spinal region. Three lumbar levels require one primary code plus two add-on codes. Since the codes include imaging guidance, no separate fluoroscopy code is reported.

34. **A. With separate codes for the electrode placement and the generator implantation — component-based coding** Permanent spinal cord stimulator implantation uses component-based coding. The electrode placement code captures the surgical placement of the percutaneous epidural electrodes. The generator implantation code captures the subcutaneous pocket creation and pulse generator insertion. Both codes are reported for the complete system implantation.
35. **B. With a single code (69930) that covers the complete cochlear device implantation including the mastoidectomy approach** CPT code 69930 covers the complete cochlear implant procedure including the mastoidectomy approach, placement of the internal receiver-stimulator, and insertion of the electrode array — all in a single code. The components are not coded separately.
36. **D. It creates a small hole in the peripheral iris to allow aqueous humor to flow from the posterior chamber to the anterior chamber, relieving the pupillary block causing the angle closure** YAG laser peripheral iridotomy creates a small opening in the peripheral iris that serves as an alternative pathway for aqueous humor to flow from the posterior chamber to the anterior chamber. This relieves the pupillary block that causes the iris to bow forward and obstruct the drainage angle, thereby treating and preventing acute angle-closure glaucoma.

### Evaluation and Management

37. **C. High** Multiple chronic conditions with one developing a new complication (diabetic nephropathy) and another worsening (heart failure) constitute high-level problem complexity. Ordering labs and coordinating a referral constitutes moderate-to-high data. Three medication changes with one requiring intensive monitoring constitutes high-risk management. The elements support high MDM.
38. **A. Initial newborn care codes (99460–99463)** Initial care of a healthy newborn on the date of birth is coded with the newborn care codes. Code 99460 covers initial care of a normal newborn in a birthing facility. These codes are specific to newborn care and are distinct from office visit codes, critical care codes, and neonatal ICU codes.
39. **B. With a subsequent hospital care code (99231–99233)** After the initial consultation, subsequent visits by the consulting physician use the subsequent hospital care codes. The consultation is a one-time service. Once the consultant begins providing follow-up care, subsequent care codes are used — not additional consultation codes.
40. **D. 99215 (40 minutes) plus 99417 × 1** Under the time-based pathway, 99215 requires 40 minutes for an established patient. The physician spent 60 minutes — 20 minutes beyond the 40-minute threshold. Each unit of 99417 covers 15 minutes. The first 15 minutes beyond the threshold supports 1 unit of 99417. The remaining 5 minutes does not meet the 15-minute threshold for a second unit.
41. **C. 99291 × 1 only (first 30–74 minutes)** Critical care code 99291 covers the first 30–74 minutes. At 45 minutes of total critical care time, the service falls within the 30–74 minute range for the

first unit of 99291. No additional units of 99292 are reported because no time beyond 74 minutes was provided.

42. **A. A medically appropriate history must be performed, but it does not determine the code level — MDM or total time determines the level** Under the current E/M guidelines, a medically appropriate history is still required but does not determine the code level. The code level is selected based on either MDM complexity or total time. The previous framework requiring specific history element counts has been replaced by this simplified approach.

## Anesthesia

43. **B. 15 units** Base units (6) + Time units (135 minutes ÷ 15 minutes/unit = 9.0) + Modifying units (P2 = 0) = 15.0 total units. Physical status P2 (well-controlled asthma and mild obesity) does not add modifying units. The calculation: 6 + 9 + 0 = 15.
44. **D. With the appropriate nerve block code as a separate service from the general anesthesia** An interscalene brachial plexus nerve block performed for postoperative pain management is a separate service from the general anesthesia. The nerve block serves a different clinical purpose (postoperative analgesia) than the general anesthesia (surgical anesthesia). Each has its own CPT code.
45. **C. A moribund patient who is not expected to survive without the operation** Physical status P5 indicates a moribund patient who is not expected to survive without the operation. The patient is in such critical condition that death is expected without surgical intervention. Examples include a patient with a ruptured aneurysm in cardiogenic shock or massive trauma with life-threatening hemorrhage.
46. **A. Four cases** Under Medicare medical direction rules, an anesthesiologist may medically direct up to four concurrent cases. If the anesthesiologist directs more than four cases, the service is classified as medical supervision rather than medical direction, which has different payment and documentation requirements.

## Radiology

47. **B. Separate CT codes for the chest and for the abdomen/pelvis — each region has its own code** CT of the chest and CT of the abdomen/pelvis are different studies covering different anatomical regions. Each has its own CPT code. When both are performed during the same session, separate codes are reported for each region. There is no single code that covers all three body areas.
48. **D. With modifier 26** When a radiologist from an independent group provides only the interpretation and report for imaging 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. **C. It identifies the location of hyperfunctioning parathyroid tissue by detecting increased uptake of the radiotracer in the adenoma** A parathyroid sestamibi scan uses the radiotracer technetium-99m sestamibi, which is taken up by both thyroid and parathyroid tissue initially but washes out of normal thyroid tissue faster than from hyperfunctioning parathyroid tissue. Delayed images show persistent uptake in the parathyroid adenoma, allowing surgical localization.
50. **A. Treatment simulation (77280–77295)** Treatment simulation codes cover the process of determining the exact patient positioning and treatment field location using a CT simulator or conventional simulator. This establishes the setup that will be reproduced at each treatment session. The simulation is performed before treatment delivery begins.
51. **D. The screening mammogram code with modifier 22** — some payers may require this approach when both are performed on the same date, capturing the additional diagnostic work with modifier 22 on the screening code. Coding practices may vary by payer.
52. **B. With a separate diagnostic chest ultrasound code — the pre-procedure diagnostic study is distinct from the procedural guidance** The pre-procedure diagnostic chest ultrasound evaluates the pleural effusion for clinical decision-making — this is a distinct diagnostic service from the procedural guidance used during the thoracentesis. The thoracentesis code includes the intra-procedural ultrasound guidance, but the separate pre-procedure diagnostic ultrasound may be reportable as a distinct service with appropriate documentation and modifier.

## Pathology and Laboratory

53. **C. The overlapping albumin is included in each panel code; it is NOT reported as a separate individual code in addition to both panels** When two panels share an overlapping component (albumin appears in both the BMP and the hepatic function panel), the overlapping test is included in each panel code. It is not reported as a separate individual code in addition to both panels. Reporting the overlap separately would constitute double billing.
54. **A. Level VI (88309)** A total mastectomy specimen is classified at Level VI surgical pathology (88309) — the highest complexity level. Level VI specimens require the most extensive examination including evaluation of the entire specimen for tumor extent, margins, lymph node involvement, and staging parameters.
55. **D. One culture code per set or per source — the specific coding depends on CPT guidelines for blood culture reporting** Blood culture coding follows specific CPT guidelines. The coding depends on whether the code is per culture or per source. Two sets drawn from two separate venipuncture sites may be reported based on the number of sources. The coder must verify the current CPT code description for the specific blood culture code to determine proper unit reporting.
56. **B. In the Molecular Pathology section of the Pathology and Laboratory chapter** Single gene molecular pathology tests — including BRAF V600E mutation analysis — are coded using Tier 1

or Tier 2 molecular pathology codes located in the Molecular Pathology section of the Pathology and Laboratory chapter. These codes are gene-specific and methodology-specific.

57. **C. 88342 × 1 for the first antibody plus 88341 × 1 for the additional antibody** IHC is coded per antibody per specimen. Two antibodies (CK7 and CK20) require 88342 × 1 (first antibody) plus 88341 × 1 (one additional antibody). The four special stains are coded separately with 4 units of the special stain code.
58. **D. One unit per date of service regardless of the number of drug classes tested** Presumptive drug testing by instrument chemistry analyzer (80307) is reported once per date of service regardless of the number of drug classes tested. Whether the screen tests for 5 or 14 drug classes, only one unit is reported. This is a fundamental distinction from definitive testing, which is reported per drug class.

## Medicine

59. **A. 96365 × 1 (initial hour) plus 96366 × 1 (additional 30 minutes)** Infliximab for Crohn's disease is a non-antineoplastic biologic agent coded with the therapeutic drug infusion codes. The 90-minute infusion: 96365 for the initial hour and 96366 for the additional 30 minutes (which exceeds the midpoint threshold for an additional unit). Since this is the only IV service, the therapeutic infusion is the initial service.
60. **B. Five units: 90460 × 3 (first component of each vaccine) plus 90461 × 2 (additional MMR components) = 5 total administration code units** For a pediatric patient (age 3) with physician counseling, component-based codes are used. MMR has 3 components: 90460 × 1 + 90461 × 2 = 3 units. Varicella has 1 component: 90460 × 1 = 1 unit. Hepatitis A has 1 component: 90460 × 1 = 1 unit. Total: 5 administration code units.
61. **C. With modifier 26** When a cardiologist from a separate group provides only the interpretation and report for a TEE 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. **D. 3 units — total treatment time of 43 minutes supports 3 timed units** Total timed treatment is 43 minutes (8 + 20 + 15). At 15 minutes per unit, 43 minutes supports 2 full units (30 minutes) with 13 remaining minutes. The 13 remaining minutes exceed the 8-minute minimum for a third unit. Total: 3 timed units allocated based on actual minutes.
63. **A. It is included in the left heart catheterization/coronary angiography code when the code description specifically includes ventriculography** When the left heart catheterization/angiography CPT code description includes left ventriculography, the ventriculogram is bundled into the catheterization code. The coder must read the complete code description to verify. Reporting a separate ventriculogram code when it is already included constitutes unbundling.

64. **B. 50 units of the percutaneous testing code (95004) plus 10 units of the intradermal testing code (95024 or 95017 depending on allergen type)** Percutaneous (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 performed during the same session.

## Medical Terminology

65. **D. Surgical removal or excision** The suffix "-ectomy" means surgical removal or excision. Common examples include appendectomy (removal of the appendix), cholecystectomy (removal of the gallbladder), hysterectomy (removal of the uterus), and mastectomy (removal of the breast). "-Itis" means inflammation, "-plasty" means surgical repair, and "-scopy" means visual examination.
66. **C. Pulmon/o or pneum/o** The combining forms "pulmon/o" and "pneum/o" both refer to the lung. Common terms include pulmonology (study of lung diseases), pneumonia (lung infection), pneumothorax (air in the pleural space), and pulmonary (relating to the lungs). "Hepat/o" refers to the liver, "ren/o" or "nephro/" refers to the kidney, and "cardi/o" refers to the heart.
67. **A. Painful, difficult, or abnormal** The prefix "dys-" means painful, difficult, or abnormal. Common terms include dyspnea (difficult breathing), dysuria (painful urination), dysphagia (difficulty swallowing), and dysfunction (abnormal function). "Eu-" means normal, "hyper-" means excessive, and "a-" means without.
68. **B. Surgical removal of the gallbladder** Cholecystectomy means surgical removal of the gallbladder, from "cholecyst/o" (gallbladder) and "-ectomy" (surgical removal). This is one of the most commonly performed surgical procedures, typically done laparoscopically for gallstone disease. Cholecystitis means inflammation of the gallbladder. Cholangiography means imaging of the bile ducts.

## Anatomy

69. **D. The femoral nerve, femoral artery, and femoral vein** The femoral triangle is bounded by the inguinal ligament superiorly, the sartorius muscle laterally, and the adductor longus muscle medially. It contains the femoral nerve (most lateral), the femoral artery (middle), and the femoral vein (most medial) — remembered by the mnemonic "NAVEL" (nerve, artery, vein, empty space, lymphatics) from lateral to medial.
70. **C. The kidney** The kidneys filter approximately 180 liters of blood per day, producing about 1–2 liters of urine. They regulate electrolyte balance (sodium, potassium, calcium), acid-base balance, blood pressure (renin-angiotensin system), and red blood cell production (erythropoietin). The kidneys are located in the retroperitoneum.

71. **A. To provide collateral blood flow to the brain — if one supplying artery is blocked, blood can flow through the circle to maintain cerebral perfusion** The circle of Willis is an arterial anastomosis at the base of the brain formed by the internal carotid arteries, anterior cerebral arteries, anterior communicating artery, posterior cerebral arteries, and posterior communicating arteries. It provides collateral circulation — if one supply artery is occluded, blood can flow through the circle to perfuse the affected territory.
72. **B. The aortic arch (specifically the ligamentum arteriosum)** The left recurrent laryngeal nerve loops under the aortic arch at the level of the ligamentum arteriosum before ascending in the tracheoesophageal groove to innervate the larynx. This anatomical course makes the nerve vulnerable during thoracic and thyroid surgery. The right recurrent laryngeal nerve loops around the right subclavian artery.

### ICD-10-CM / Diagnosis Coding

73. **D. I50.23 (Acute on chronic systolic heart failure)** ICD-10-CM provides specific codes that capture both the type and acuity of heart failure. I50.23 specifically identifies acute on chronic systolic (reduced ejection fraction) heart failure. Using an unspecified code when the physician has documented the specific type and acuity would be undercoding.
74. **C. M87 (Osteonecrosis)** Avascular necrosis (osteonecrosis) of the femoral head is coded using category M87 with the specific code identifying the site (femoral head) and laterality (right). M16 covers osteoarthritis. S72 covers fractures. Z96 covers status post joint replacement.
75. **A. With a code from J13 (Pneumonia due to Streptococcus pneumoniae)** ICD-10-CM provides organism-specific pneumonia codes. J13 specifically identifies pneumonia caused by *Streptococcus pneumoniae*. This is the most specific code available for the documented diagnosis. Using an unspecified pneumonia code when the organism is documented would be undercoding.
76. **B. S06.5 with 7th character A for initial encounter** Traumatic subdural hemorrhage is coded with S06.5 with the appropriate 7th character. For the initial encounter with active treatment, the 7th character "A" is used. I62 covers nontraumatic subdural hemorrhage — this case is traumatic. The 7th character "D" would be for subsequent encounters during healing.
77. **D. K21.0 (Gastro-esophageal reflux disease with esophagitis)** K21.0 specifically captures GERD with esophagitis — a combination code that identifies both the reflux disease and the associated esophagitis in a single code. K21.9 would be GERD without esophagitis. K20.9 is esophagitis unspecified without linking to GERD.

### HCPCS Level II

78. **C. 240 units** The HCPCS J-code for nivolumab specifies 1 mg per unit. The physician administered 240 mg:  $240 \text{ mg} \div 1 \text{ mg/unit} = 240 \text{ units}$ . HCPCS drug codes specify a defined quantity per unit, and the total units must reflect the total amount administered.

79. **A. E0601 (within the E-code range for respiratory DME)** CPAP devices for treatment of obstructive sleep apnea are coded within the E-code range for respiratory DME. E0601 is the code for a continuous positive airway pressure device. Related supplies (masks, tubing, filters) have their own A-codes.
80. **B. Modifier GY** Modifier GY indicates the service is a statutory exclusion — Medicare does not cover it by law. This is applied when the service falls entirely outside Medicare's coverage authority. Examples include routine dental services and cosmetic surgery. Modifier GA indicates an ABN was obtained. Modifier GZ indicates expected medical necessity denial without ABN.

### Coding Guidelines

81. **D. It is not reported separately; it is bundled into the surgical cystoscopy/ureteroscopy code** Diagnostic cystoscopy is bundled into surgical cystoscopy/ureteroscopy when both are performed during the same session. The ureteroscopy with laser lithotripsy is a surgical procedure — the diagnostic cystoscopic examination is included and is not separately reportable.
82. **C. Modifier 79** Modifier 79 (unrelated procedure or service during the postoperative period) is appended when a completely unrelated surgical procedure is performed during the global period of a previous surgery. The new procedure has no clinical relationship to the original surgery. Modifier 78 is for complications. Modifier 58 is for planned staged procedures.
83. **A. Modifier XU (Unusual Non-Overlapping Service)** Modifier XU indicates the service is distinct because it does not overlap the usual components of the main service. It is used when the clinical situation is unusual and the two services would not normally be reported together but are justified in this specific circumstance.
84. **B. The global period is set by the individual MAC (carrier-priced)** A global period designation of "YYY" indicates the global period is determined by the individual MAC. This means the MAC in each jurisdiction sets the global period, which may vary by geographic area. This is different from the standard fixed designations.
85. **D. It indicates that a different physician repeats the same procedure on the same patient on the same day** Modifier 77 is used when a different physician repeats the same procedure on the same patient on the same day. This tells the payer that the repeat was performed by a different provider and is not a duplicate billing error. Modifier 76 is for repeats by the same physician.
86. **C. The code description has been revised since the previous edition** The triangle symbol (▲) indicates that the code description has been changed or revised since the previous CPT edition. The filled circle (●) indicates a new code. The plus sign (+) indicates an add-on code. The coder should review revised descriptions to identify any changes that affect code selection.
87. **A. With only the open cholecystectomy code; the abandoned laparoscopic approach is not separately coded** When a procedure begins laparoscopically but is converted to an open approach,

only the open code is reported. The abandoned laparoscopic approach is not coded separately. This rule applies consistently throughout CPT for all laparoscopic-to-open conversions.

## Compliance and Regulatory

88. **B. Electronic protected health information (ePHI)** The HIPAA Security Rule specifically addresses the protection of electronic PHI (ePHI) — health information that is created, stored, maintained, or transmitted in electronic form. The Security Rule establishes administrative, physical, and technical safeguards to protect ePHI. The Privacy Rule covers all forms of PHI (paper, electronic, verbal).
89. **D. Guaranteed immunity from all government audits** Guaranteed immunity from government audits is NOT one of the OIG's seven recommended elements. The seven elements are: designation of a compliance officer, development of compliance policies and procedures, training and education, internal auditing and monitoring, responding to detected offenses, open communication channels, and enforcement through disciplinary guidelines.
90. **C. It adjusts the national RVU values for geographic cost differences in each Medicare locality** The GPCI adjusts each RVU component (Work, Practice Expense, PLI) for geographic variations in the cost of practicing medicine. Areas with higher costs of living and higher practice expenses have higher GPCIs. The formula multiplies each RVU component by its respective GPCI before applying the conversion factor.

## Cases — Integrated Coding Scenarios

91. **A. It is not coded separately; the excision is included in the adjacent tissue transfer code** Adjacent tissue transfer codes include the excision of the lesion that created the defect. The excision is bundled into the flap code and is not reported separately. This bundling rule applies specifically to adjacent tissue transfer.
92. **D. With the adjacent tissue transfer code for the face based on defect size in square centimeters** Adjacent tissue transfer codes are organized by defect size and anatomical location. For the face (lip), the code is selected based on the 6 sq cm defect size. The code captures the entire procedure — excision, flap creation, transfer, and closure.
93. **B. 20 units** Base units (7) + Time units (180 minutes ÷ 15 minutes/unit = 12.0) + Modifying units (P3 = 1) = 20.0 total units WITHOUT qualifying circumstances. The calculation: 7 + 12 + 1 = 20.
94. **C. 21 units** Adding the qualifying circumstances code 99100 (1 unit for extreme age over 70) to the base calculation: 20 + 1 = 21 total units. The complete formula: Base (7) + Time (12) + P3 modifying units (1) + 99100 (1) = 21.
95. **A. The paclitaxel chemotherapy infusion** The infusion hierarchy places chemotherapy at the highest level. The paclitaxel chemotherapy infusion is the initial service. The hydration is the

lowest-priority service. The IV pushes are reported as add-on codes. Only one initial service per encounter.

96. **D. As a secondary/sequential hydration service using the appropriate add-on code** Since the chemotherapy infusion is the initial service, the hydration cannot be reported as an initial service. The hydration is reported as a secondary service using the hydration add-on code. Only one initial infusion service per encounter is permitted.
97. **B. Modifier 78** The wound hematoma is a complication of the original carotid endarterectomy requiring an unplanned return to the operating room during the 90-day global period. Modifier 78 (unplanned return to the OR for a related procedure) is appended. Modifier 79 is for unrelated procedures. Modifier 58 is for planned procedures.
98. **C. With the complete global package — no splitting modifiers** When the surgeon provides all components — preoperative evaluation, the surgical procedure, and all postoperative care — the complete global package is reported without splitting modifiers.
99. **A. One EMR 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 EMR and cold forceps biopsy have different CPT codes. Modifier 59 or XS is appended to the lesser procedure. The diagnostic colonoscopy is bundled.
100. **D. Z12.11 (Encounter for screening for malignant neoplasm of colon)** The patient presented for a screening colonoscopy, making Z12.11 the first-listed diagnosis. The polyp codes are reported as secondary diagnoses. Medicare guidelines support the screening Z code as primary even when findings are identified and treated during the screening.