

## The Surgical Patient Exam Questions

1. A patient is brought into the Emergency Room (ER) with the following injuries: large bruise on the thigh, irregular cut on forehead, and skin scraped off the arm. The wounds would be described as
  - A. incise wound of thigh, abrasion of forehead, burns on arm
  - B. avulsion of thigh, contused forehead, abrasion of arm
  - C. contused thigh wound, laceration of forehead, abrasion of arm
  - D. abrasion of thigh, puncture wound to forehead, lacerated arm

**Rationale: C.** A bruise is a contused wound; a cut with irregular edges is a lacerated wound; a scraped wound is an abrasion

2. You are assigned to scrub on a gunshot wound of the abdomen with a perforated bowel and will expect the surgeon to
  - A. clean up the wound and approximate wound edges for primary intention healing
  - B. irrigate and suction in preparation for second intention healing
  - C. suture individual layers of tissue after debridement of wound
  - D. clean up the wound, pack the wound to keep wound edges apart, and bring patient back to OR later for delayed closure

**Rationale: D.** A gunshot of the abdomen would result in gross contamination from bowel contents and would require thorough irrigation and packing wound edges apart to permit granulation to begin. The patient would be brought to surgery at a later date for delayed closure – third degree wound healing

3. Control of bleeding is called
  - A. homeostasis
  - B. granulation
  - C. inflammatory process
  - D. hemostasis

**Rationale: D.** Hemo = blood; stasis = control

4. During which phase of wound healing is the strength of the wound limited to the suture holding it together?
  - A. Granulation
  - B. Lag phase (inflammatory)
  - C. Epithelization (proliferation)
  - D. Remolding (maturation)

**Rationale: B.** The inflammatory phase, also known as the lag phase, is the first few days when the strength of the wound is limited by the strength of the sutures holding it together.

Epithelization

(up to 2 weeks) is the proliferative phase when collagen is being formed and stitches are

removed. Wound strength is returned during the remodeling or maturation phase

5. All of the following factors delay wound healing except
- smoking
  - steroid or cancer drugs
  - emotional stress
  - good circulation

**Rationale: D.** Wound healing is delayed by poor circulation, smoking (constricts blood vessels and reduces functional hemoglobin), and emotional stress (lowers body defenses)

6. Which of the following intraoperative techniques would not promote wound healing?
- Inoculum of bacteria into the wound
  - Preservation of blood supply
  - Elimination of dead space
  - Irrigation to debride the wound

**Rationale: A.** Wound healing is promoted by a good blood supply, elimination of dead space, irrigation to debride wounds, and avoiding inoculum of bacteria into the wound

7. Based on the potential for infection, which one of the following described wounds would be classified as a class I?
- Removal of appendix with no major spillage
  - Inguinal hernia repair without break in technique
  - Compound fracture
  - Gunshot wound to the abdomen

**Rationale: B.** A class I wound is an elective procedure done under ideal conditions with primary closure, and with no major breaks in sterile technique; an inguinal hernia repair would belong to this class; A compound fracture would be class III with greater chance of infection due to protruding bone; the abdomen would constitute class IV with the greatest chance of infection

8. A collection of fluid in tissue would result in all of the following except
- hemostasis
  - a culture medium for bacteria
  - pressure on adjacent organs
  - elevation of skin flap with the loss of vascularity and predisposition to wound disruption

**Rationale: A.** Fluid collecting in tissue provides a culture medium for bacteria, puts pressure against adjacent organs, and causes elevation of skin flap, which results in the loss of vascularity and predisposes to wound disruption. It would not provide hemostasis

9. For which of the following drains would a sterile safety pin be needed?
- A. Sump drain
  - B. Closed wound suction drain
  - C. Penrose drain
  - D. Gravity drain

**Rationale: C.** A Penrose drain is a flat cylinder latex drain, generally placed in a stab wound and secured with a safety pin. It serves as an avenue for fluid to exit the body

10. Inadvertent removal of which one of the following drains during the first 48 hrs after placement would cause the least concern?
- A. T tube (gravity drain)
  - B. Wound sump drain
  - C. Closed-wound suction drain
  - D. Nasogastric (NG) tube

**Rationale: D.** Granulating tissue forms around tubes placed in stab wounds to wall them off. If they are pulled out within 48 hrs, a leak can result with serious consequences. Tubes placed in natural orifices, such as NG tube, would not cause granulation

11. Which of the following signs would you expect if the patient is hemorrhaging?
- A. Slow pulse
  - B. Hypertension
  - C. Cool, moist skin
  - D. Flushed face

**Rationale: C.** Signs and symptoms associated with hemorrhaging are rapid, weak pulse; rapid, shallow respiration; and cyanosis, which results from decreased circulating volume with resulting hypoxia. Cool, moist skin results from circulatory collapse, which accompanies decreased blood volume

12. Which of the following methods of hemostasis is thermal?
- A. Absorbable gelatin (Gelfoam)
  - B. Thrombin
  - C. Esmarch bandage
  - D. Electrocautery

**Rationale: D.** Thermal methods of hemostasis include electrocautery, electrosurgical unit (ESU), LASER, fulguration, hemostatic scalpel, photocoagulation, and cryosurgery. The Esmarch bandage provides hemostasis by pressure; absorbable gelatin is a chemical; thrombin is a drug.

13. When fibrous bands of scar tissue bind organs together, the condition is
- A. adhesions

- B. cicatrix
- C. evisceration
- D. sinus tract

**Rationale: A.** Adhesions are fibrous bands of tissue, resulting from trauma or irrigation to tissue, which bind organs together and often require surgery for lysis

14. A suture at the secondary suture line is a

- A. stick tie
- B. ligature
- C. traction suture
- D. retention suture

**Rationale: D.** A retention/tension/through and through suture creates the secondary suture line

15. Of the following sutures, which will be absorbed the quickest?

- A. chromic gut
- B. polyglycolic acid (Dexon)
- C. polypropylene (Prolene)
- D. polydioxanone (PDS)

**Rationale: A.** Surgical gut suture is made of animal protein and therefore is more rapidly absorbed by the body and also causes the most tissue reaction

16. Which suture is contraindicated both in the presence of infection and in the urinary or biliary tract?

- A. chromic gut
- B. polypropylene (Prolene)
- C. polydioxanone (PDS)
- D. silk

**Rationale: D.** Silk suture is braided, nonabsorbable suture which is not used in the presence of infection because it provides a wicking action and is contraindicated in biliary and urinary tract surgery because it serves as a nucleus for stone formation

17. Which suture gauge would be more appropriate for ophthalmic surgery?

- A. 7
- B. 0
- C. 4-0
- D. 8-0

**Rationale: D.** Ophthalmic surgery requires a very fine suture from 5-0 to 11-0

18. The needle point most appropriate for suturing the liver, pancreas, or spleen is
- A. taper
  - B. blunt
  - C. cutting
  - D. trocars

**Rationale: B.** A blunt-point needle is used on friable tissue, such as liver, pancreas, or spleen

19. Which of the following statements best describes the placement of the needle holder on the needle?
- A.  $\frac{1}{4}$  the distance from the point
  - B. on the swaged section
  - C. in the center of the needle
  - D.  $\frac{1}{3}$  the distance from the eye or swage

**Rationale: D.** The needle holder is clamped  $\frac{1}{3}$  the distance from the eye or swage of the needle to allow for entry of the point of the needle into tissue with sufficient space for grasping with a needle holder to pull it through

20. The stitch which provides the most rapid closure, even distribution of tension, and a leakproof suture line is
- A. interrupted
  - B. continuous
  - C. purse string
  - D. buried

**Rationale: B.** The continuous suture is a series of stitches with one strand (running stitch) that provides for rapid closure, even distribution of tension, and a leakproof suture line

21. The purpose of a secondary suture line is to
- A. reinforce the primary suture line
  - B. provide traction to immobilize tissue
  - C. secure the wound drain
  - D. suture around a lumen to occlude a vessel

**Rationale: A.** The secondary suture line (tension, stay, or retention suture) is a heavy, nonabsorbable suture, used with some abdominal closures in patients with low healing potential to prevent wound disruption. It is passed through multiple layers of tissue, widely spaced, to reinforce the primary suture line

22. With which of the following staplers would the surgeon need assistance in application?

- A. Ligating clip
- B. Linear stapler
- C. Intraluminal stapler
- D. Skin stapler

Rationale: **D.** When placing skin staples, two hands are needed to hold the wound edges together, thereby requiring an assistant to position and fire the staple gun

23. The dressing that should be placed nearest the wound is
- A. primary dressing
  - B. secondary dressing
  - C. pressure dressing
  - D. rigid dressing

**Rationale: A.** When dressing a wound, the primary dressing should be placed next to the incision to wick away exudate, which if held next to the skin, would lead to tissue irritation and maceration

24. before the procedure begins
- A. before the counts are taken
  - B. after the final count is taken
  - C. anytime the scrub calls for them

**Rationale: C.** Radiopaque sponges are never used to dress the wound. Dressing sponges are not opened until the final sponge count is taken, to avoid an incorrect count

25. After the blood around the wound is wiped away with a damp sponge, the dressings are applied by the
- A. circulator as soon as the drapes are removed
  - B. circulator before the drapes are removed
  - C. scrub before the drapes are removed
  - D. physician after the drapes are removed

**Rationale: C.** Following the placement of the final stitch or staple, the scrub cleans the blood from around the wound with a damp sponge, places dressings on the wound, and holds them with one hand while removing drapes with the other hand. The circulator or physician secures the dressing with tape or another type of bandage

## SURGICAL SCHEDULE:

Rm.# time	Surgeon	Procedure	Anest.
Rm.00 OC OC OC	Dr. Z Dr. C Dr.Z	Rt. Knee Arthroscopy Craniotomy Angioplasty	Gen. Gen. Gen.
Rm.01 7:00 TF TF	Dr. X Dr. X Dr. X	Lobectomy Thoracotomy Tracheostomy	Gen. Gen. Gen.
Rm02 7:00 TF	Dr. B Dr. B	Splenectomy Gastroctomy	Gen. Gen.
Rm03 7:00 TF 12:30 3:00	Dr. A Dr. A Dr. F Dr. F	Cystoscopy Cystoplasty Pyleogram Cystocele repair	MAC Gen. MAC Gen.
Rm04 7:00 TF	Dr. Y Dr. Y	Carpal tunnel release Fasciotomy	Gen. Gen.
Rm05 7:00	Dr. G	Trans-sphenoidal Adenectomy	Gen.

TF TF	Dr. G Dr. G	Trans-urethral resection of the prostate STSG	Gen Gen.
Rm06 7:00	Dr. R	Lumbar Laminectomy	Gen.
Rm07 7:00 TF	Dr. M Dr. M	Rhinoplasty LAVH	Gen. MAC
Rm08 11:00	Dr. E	Bovine Thrombectomy	MAC
Rm09 8:30 TF	Dr. T Dr. T	Cholecystectomy Palatoplasty	Gen. Gen.
Rm10 7:00 TF TF	Dr. K Dr. K Dr. K	Nephrectomy Choledocholithotripsy Hepatic resection	Gen. MAC Gen.
<b>Rm11</b> 7:00 12:00	<i>Dr. L</i> <i>Dr. L</i>	<i>Colposcope</i> <i>Mastectomy</i>	<i>Gen.</i> <i>Gen.</i>
<b>Rm12</b> 7:00 TF TF	<i>Dr. W</i> <i>Dr. W</i> <i>Dr. W</i>	<i>Trans-metatarsal amputation</i> <i>Osteotomy</i> <i>Arthrocentesis</i>	<i>Gen.</i> <i>Gen.</i> <i>Gen.</i>
Rm13 7:00	<i>Dr. O</i>	<i>Hysterectomy</i>	<i>Gen.</i>

The following questions should be answered using the surgery schedule above:

26. How will the patient in Room 6 be positioned?
- Dorsal recumbent
  - Lateral
  - Prone
  - Lithotomy

**C. Rationale:** Lumbar Laminectomies are performed on the spine with the patient in the prone position. The other positions will not be suitable for most Laminectomies. Occasionally, a spinal surgery will be done with the patient in another position, depending on what the goal of the surgery is.

27. A patient scheduled in Room 5 is morbidly obese. What is a special precaution that should be taken?
- Morbidly obese patients are more prone to infections, therefore, prophylactic antibiotics should be given
  - There should be extra personnel on hand for transporting and positioning
  - The patient must be prepped before induction
  - The patient should be positioned before induction

**B. Rationale:** A morbidly obese patient presents many obstacles in surgery, one of which is the possibility of injury to staff when positioning and transferring the patient. For this reason, there should always be extra personnel on hand when transferring and positioning the morbidly obese patient.

28. The patient in Room 13 is suffering from diabetes. What precautions should be taken?
- The room should be heated to prevent hypothermia
  - Nutritional supplements should be given pre-operatively
  - Antiembotic stockings may be used postoperatively to aid in circulation
  - Diabetes patients are prone to respiratory obstructions

**C. Rationale:** Patients with diabetes suffer from many health issues, including decreased circulation to extremities. For this reason, the surgeon may order the use of antiembolic stockings or devices both during the procedure and afterward.

29. How will the patient scheduled for the LAVH in Room 7 be positioned?
- Lithotomy
  - Trendelenburg
  - Dorsal Recumbent
  - Prone

**A. Rationale:** LAVH stands for Laparoscopic Assisted Vaginal Hysterectomy. This procedure is done with the patient in the lithotomy position.

30. Where will the safety strap be located on the patients in Room 1?
- Across the lower legs
  - 2" above the knee
  - At the waist
  - There will not be a safety strap in these surgical procedures

**B. Rationale:** The safety strap for a patient in the supine position is 2" above the knees, unless otherwise directed.

31. How will the Cystoscopy patient be positioned?

- A. Lithotomy
- B. Supine
- C. Trendelenburg
- D. Kraske

**A. Rationale:** Patients undergoing Cystoscopies are generally placed in a lithotomy position to facilitate the insertion of the Cystoscope. Precautions must be taken whenever lithotomy is used, as it can easily result in patient injury due to improper positioning.

32. A Wilson frame will be used in one of the surgeries listed. Which one is the most likely to use this device?

- A. Hepatic Resection
- B. LAVH
- C. Craniotomy
- D. Lumbar Laminectomy

**D. Rationale:** The Wilson frame is a positioning device sometimes used when a patient is in the prone position. It must be properly positioned on the table before the patient is placed in position.

33. The patient who will undergo the Nephrectomy in Room 10 will be placed in a lateral position. How many people are required to position the patient?

- A. 2
- B. 3
- C. 4
- D. 5

**C. Rationale:** There must be four people to properly place a patient in the lateral position. There should be one person at the head (anesthesia), one person at each side, and a fourth at the feet.

34. The surgeon requires the patient in Room 2 to have an indwelling catheter. Why would this be ordered?

- A. For patient comfort postoperatively
- B. For sterile specimen collection
- C. For convenience during rehabilitation
- D. To keep the bladder inflated during the procedure

**B. Rationale:** There are several reasons that an indwelling catheter would be placed in a patient. It may be to monitor urine output, to keep the bladder deflated during the procedure, or to collect a sterile specimen. Catheterization is a sterile procedure that needs to be performed carefully to avoid urinary tract infections.

35. The patient scheduled in Room 5 for a skin graft needs to be prepped. What does the Surgical Technologist need to do?
- A. Use one kit of providone Iodine for the recipient site, and leave the donor site clear
  - B. Use a separate setup for each site and prep the donor site first
  - C. Use separate setup for each site and prep the recipient site first
  - D. Do not prep either site

**B. Rationale:** Donor and recipient sites in skin grafts should be prepped separately with the donor site being prepped first.