

Test Bank for Small Animal Surgical Nursing 4th Tear

Chapter 02: Instruments

Tear: Small Animal Surgical Nursing: Skills and Concepts, 4th Edition

MULTIPLE CHOICE

1. Which instrument component is present only on instruments with ring handles?
 - a. Jaws
 - b. Blade
 - c. Shank
 - d. Box lock

ANS: D

The box lock is present only on instruments with ring handles. It is the joint or hinge of the instrument. This area absorbs great stress when the instrument is in use, and therefore the box lock must be inspected carefully to detect any cracks or evidence of degradation. The shank, or shaft, is the long body of the instrument and determines its overall length. The blade is, of course, for cutting, and the shank is simply the long body of the instrument.

REF: p. 13

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

2. Which parts of a ring-handled surgical instrument locks the instrument closed during a surgical procedure?
 - a. Jaws
 - b. Blade
 - c. Shank
 - d. Ratchet

ANS: D

A ratchet, which is found only on instruments with ring handles, locks an instrument jaw into a closed position. The blade is, of course, for cutting, and the shank is simply the long body of the instrument. The jaw is part of the tip and working end of the instrument. It can have serrations, teeth, or flat surfaces, depending on its use.

REF: p. 13

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

3. During surgery on a cat, the veterinarian needs to cut a sponge to fit a particular wound size. Which surgical scissors is most appropriate to hand her?
 - a. Hemostat
 - b. Mayo scissors
 - c. Operating scissors
 - d. Metzenbaum scissors

ANS: C

The intended use of operating scissors is to cut only inanimate objects (e.g., suture, paper drapes, and sponges). As their name implies, hemostats are used to aid in controlling hemostasis in the surgical field. The Mayo scissors is used when cutting large muscle masses, cartilage, or any other nondelicate tissue. The Metzenbaum scissors is used for delicate surgical dissection.

REF: p. 14

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

4. During surgery on a 3-month-old puppy, the veterinarian needs to cut a tiny ligament. Which surgical instrument is most appropriate to hand him?
- Hemostat
 - Mayo scissors
 - Operating scissors
 - Metzenbaum scissors

ANS: D

Metzenbaum dissecting scissors are used for delicate surgical dissection. As their name implies, hemostats are used to aid in controlling hemostasis in the surgical field. The Mayo scissors is used when cutting large muscle masses, cartilage, or any other non-delicate tissue. The intended use of operating scissors is to cut only inanimate objects (e.g., suture, paper drapes, and sponges).

REF: p. 14

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

5. The veterinary surgeon needs to clamp a large mass on the flank of a thoroughbred horse. Which forceps is most appropriate to use?
- Rochester-Carmalt hemostatic
 - Halstead mosquito hemostatic
 - Ferguson angiotribe
 - Crile hemostatic

ANS: A

The Rochester-Carmalt hemostat is quite different from other hemostats. This hemostatic forceps is usually about 8 inches long with a jaw that is approximately 3.5 inches of the total length, making this a good instrument to use when clamping a large vessel or tissue mass. Halstead mosquito hemostatic forceps have small jaws with fine horizontal serrations along the length of the tip. These are generally used for clamping small vessels. The Ferguson angiotribe is an extremely strong forceps that is quite traumatic, with a crushing jaw design that can be used on vessels of almost any size and on any tissue that will not need to be viable in the body. The Crile hemostat can be used for medium-sized vessels or small tissue masses.

REF: p. 15

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

6. The veterinary surgeon needs to clamp a small vessel in a Cairn terrier dog. Which forceps is most appropriate to use?

- a. Rochester-Carmalt hemostatic
- b. Halstead mosquito hemostatic
- c. Ferguson angiotribe
- d. Crile hemostatic

ANS: B

Halstead mosquito hemostatic forceps have small jaws with fine horizontal serrations along the length of the tip. These are generally used for clamping small vessels. The Rochester-Carmalt hemostat is quite different from other hemostats. This hemostatic forceps is usually about 8 inches long with a jaw that is approximately 3.5 inches of the total length, making this a good instrument to use when clamping a large vessel or tissue mass. The Ferguson angiotribe is an extremely strong forceps that is quite traumatic, with a crushing jaw design that can be used on vessels of almost any size and on any tissue that will not need to be viable in the body. The Crile hemostat can be used for medium-sized vessels or small tissue masses.

REF: p. 14

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

7. Which needle holder has the distinction of being useful for extraocular procedures but not for intraocular use?
- a. Derf
 - b. Crile-Wood
 - c. Olsen-Hegar
 - d. Mayo-Hegar

ANS: A

The Derf needle holder is small in length and is used with small animals, with special species, and in extraocular ophthalmic procedures (considered too large for intraocular surgery). The Olsen-Hegar needle holder has scissors built in to allow a suture to be cut without the surgeon having to reach for another instrument. The Mayo-Hegar needle holder is a commonly used instrument available in a variety of lengths, depending on the surgical procedure and the surgeon's preference. Although similar to the Mayo-Hegar needle holder, the Crile-Wood needle holder has a finer, more delicate jaw.

REF: p. 15

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

8. A 3-year-old female Boxer is undergoing surgery to repair a hindlimb cut she sustained when running through thick underbrush. The surgeon needs to use just one hand (and thus one instrument) to hold a suture and then cut it. Which is the most appropriate needle holder to use?
- a. Derf
 - b. Crile-Wood
 - c. Olsen-Hegar
 - d. Mayo-Hegar

ANS: C

The Olsen-Hegar needle holder has scissors built in to allow a suture to be cut without the surgeon having to reach for another instrument. Neither the Derf, nor the Olsen-Hegar, nor the Mayo-Hegar has that advantage. With that in mind, though, the main disadvantage to having the scissors as part of this needle holder is that an inexperienced user may inadvertently cut suture material when trying to grasp the needle.

REF: p. 15

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

9. Which scalpel blade will fit onto a No. 3 scalpel handle?
- 29
 - 23
 - 21
 - 14

ANS: D

Scalpel blade handles are designed to hold scalpel blades for easier and safer use. Scalpel blades numbered 10 through 15 are the most common blades for the No. 3 scalpel handle. Blades numbered 20 through 23 fit on the No. 4 handle.

REF: p. 15

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02

10. During abdominal surgery, the surgeon wants to remove a tumor. Which tissue forceps is used to grasp only tough tissue or tissue being removed from the patient?
- Allis
 - DeBakey
 - Adson 1 × 2
 - Adson-Brown

ANS: A

Because of its traumatic nature, the Allis tissue forceps is generally used to grasp tough tissue (e.g., linea alba) or tissue being removed from the animal (e.g., tumor, skin). Originally designed as a cardiovascular instrument, the DeBakey thoracic thumb tissue forceps is an excellent example of an atraumatic forceps that should be used only on delicate tissue. The tip of the Adson-Brown instrument has two parallel rows of nine shallow teeth on both tips. A common general surgery tissue forceps, the Adson-Brown forceps, can be found in most general instrument packs. The tip of the Adson 1 × 2 Adson style has one tooth on one tip and two teeth on the other. The teeth interdigitate to grasp tissue firmly. It can be fairly traumatic if used on delicate tissue or too aggressively.

REF: p. 17

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

11. Which surgical instrument has limited use in soft tissue surgery but is very useful in orthopedic or neurologic surgery?
- Gelpi retractor
 - Balfour retractor
 - Weitlaner retractor
 - U.S. Army retractor

ANS: A

With its single, sharp-pointed tips, the Gelpi self-retaining retractor is a fairly traumatic instrument. It has limited use in soft tissue surgery but is extremely useful in orthopedic and neurologic surgery. The Balfour retractor is frequently used in soft tissue surgery. The Weitlaner retractor is also used mostly in orthopedic surgery—but with this key difference from the Gelpi: its blunt-toothed version can be used in soft tissue surgeries. The U.S. Army retractor causes little tissue trauma, other than pressure damage if applied too forcefully to the tissue.

REF: p. 17

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

12. Which surgical instrument is most appropriate to hand the surgeon when she wants to grasp and retract a patient's tissue on a short-term basis?
- Senn retractor
 - Gelpi retractor
 - U.S. Army retractor
 - Thumb tissue forceps

ANS: D

Thumb tissue forceps (or “pick up”) are used to grasp and retract tissue on a short-term basis. They resemble tweezers. The other three retractors work better for long-term retraction: the Senn and U.S. Army retractors are handheld, while the Gelpi is a self-retaining retractor.

REF: p. 16

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

13. A 9-year-old female American Shorthaired cat is undergoing delicate vascular surgery. Which forceps is most appropriate to use?
- Adson thumb tissue with Adson dressing tip
 - Adson thumb tissue with Adson 1 × 2 tip
 - DeBakey thoracic thumb tissue
 - Russian thumb tissue

ANS: C

Atraumatic DeBakey thoracic thumb tissue forceps have no teeth and often are used for delicate thoracic, vascular, and neurologic procedures. The Adson dressing forceps tip has no teeth but does have flat, atraumatic serrations. This Adson style is generally used as an aid in placing or removing dressings on wounds. The tip of the Adson 1 × 2 Adson style has one tooth on one tip and two teeth on the other. The teeth interdigitate to grasp tissue firmly. It can be fairly traumatic if used on delicate tissue or too aggressively. The Russian thumb tissue forceps has a very traumatic, bulky tip. This instrument is generally reserved for use on skin or tissue that is being removed from the animal.

REF: p. 16

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

14. A 4-year-old male Great Dane is undergoing abdominal surgery. The surgeon wants to deflect tissue and other structures away from the surgical site for complete visualization. Which retractor is most appropriate to use?
- Weitlaner
 - Balfour
 - Gelpi
 - Senn

ANS: B

The Balfour retractor is one of the few self-retaining retractors frequently used in soft tissue surgery. While keeping the abdominal walls in lateral retraction, it also has a third blade for cranial retraction as well. This widespread retraction provides excellent visualization of the abdominal cavity for the surgeon. The Weitlaner self-retaining retractor has teeth in the jaw that can be blunt or sharp and is used more often in orthopedic surgery. The Gelpi has limited use in soft tissue surgery but is extremely useful in orthopedic and neurologic surgery. The Senn is a double-ended handheld retractor. One end is a narrow, blunt blade, and the other end is a toothed, traumatic end. The teeth can be sharp or blunt, which may affect where it is used.

REF: p. 17

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

15. A 3-year-old male Domestic Shorthaired cat is undergoing surgery. The surgeon wants to use a penetrating but lightweight towel clamp. Which is most appropriate to use?
- Lorna (Edna)
 - Backhaus
 - Roeder
 - Jones

ANS: D

The Jones clamp is a penetrating towel clamp that is more lightweight and delicate than other styles. It uses a squeeze-handle mechanism that makes it convenient for use on smaller animals. The Lorna and Backhaus are more ideal for securing second-layer drapes, whether cloth or paper, to the ground drapes. The Roeder style is unique in that it has balls on the tips. The balls prevent the towel clamp from being placed too deeply into the tissue.

REF: p. 18

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

16. A 6-month-old female Labrador retriever is undergoing ovariohysterectomy. The surgeon is about to exteriorize the uterine horns. Which instrument is most appropriate to use?
- Rochester-Carmalt forceps
 - Babcock intestinal forceps
 - Groove director
 - Snook spay hook

ANS: D

Surgeons may use the Snook spay hook to find and exteriorize the uterine horns during ovariectomy. Intestinal forceps such as Doyen intestinal forceps and Babcock intestinal forceps allow handling of the delicate tissue without traumatization or compromise of blood flow. Tissue that is not viable or that is being removed can be clamped with a more traumatic clamp, like a Rochester-Carmalt forceps. The groove director is used to assist in incising the linea alba.

REF: p. 18

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

17. During ultrasonography of a 12-year-old male Giant Schnauzer's thoracic region, a large mass is detected on soft tissue, and the surgeon orders cytology of a sample of the mass. Which instrument should be used to gather the sample to send to the laboratory?
- Groove director
 - Finochietto retractor
 - Needle punch biopsy instrument
 - Michele Trephine bone biopsy instrument

ANS: C

A needle punch biopsy instrument is used to collect a core sample from suspicious tissue. The groove director is designed to aid the surgeon in making incisions on the linea alba. This instrument provides a "channel" that the scalpel can follow. A Finochietto retractor is designed to retract the thoracic wall. Bone biopsy (not soft tissue) specimens are often collected using a Michele Trephine biopsy needle to obtain a core sample from the bone.

REF: p. 20

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

18. During the next surgery, the veterinarian will need to make an incision on the linea alba. Which instrument will be most helpful to provide a channel for the scalpel to follow?
- Groove director
 - Finochietto retractor
 - Punch biopsy instrument
 - Michele Trephine bone biopsy instrument

ANS: A

The groove director is designed to aid the surgeon in making incisions on the linea alba. This instrument provides a "channel" that the scalpel can follow, to avoid accidental incising of abdominal viscera. A punch biopsy instrument is used to collect a core sample from suspicious tissue. A Finochietto retractor is designed to retract the thoracic wall. Bone biopsy (not soft tissue) specimens are often collected using a Michele Trephine biopsy needle to obtain a core sample from the bone.

REF: p. 18

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

19. The surgeon is repairing a hindlimb fracture in a horse. Which instrument will be needed to hold and drive intramedullary pins?

- a. Bone curette
- b. Hand chuck
- c. Bone rongeur
- d. Periosteal elevator

ANS: B

A hand chuck is designed to hold and drive intramedullary pins for repair of a fracture or for other orthopedic procedures requiring the use of pins. It acts as a manual drill. The pins are held securely in the hand chuck when the key is used to tighten the chuck. An extension piece is available to protect the surgeon from the pin, which may extend beyond the end of the chuck. Bone curettes are used to collect, harvest bone graft material, or to shape and scrape bony surfaces. Bone rongeurs are used to break up bits and pieces of bone for grafting purposes. Pieces of bone too small to reattach to the animal are broken down into small pieces and packed around the fracture lines to encourage new osteoblast formation and promote healing. The periosteal elevator is used to elevate the periosteum from the bone so that implants can be placed.

REF: p. 21

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

20. A 3-year-old male Quarterhorse is undergoing a bone graft. Which instrument is most appropriate to use to break up pieces of bone in this horse?
- a. Bone curette
 - b. Hand chuck
 - c. Bone rongeur
 - d. Periosteal elevator

ANS: C

Rongeurs are used to break up bits and pieces of bone for grafting purposes. Pieces of bone too small to reattach to the animal are broken down into small pieces and packed around the fracture lines to encourage new osteoblast formation and promote healing. Bone curettes are used to collect, harvest bone graft material, or to shape and scrape bony surfaces. A hand chuck is designed to hold and drive intramedullary pins for repair of a fracture or for other orthopedic procedures requiring the use of pins. The periosteal elevator is used to elevate the periosteum from the bone so that implants can be placed.

REF: p. 21

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

21. During orthopedic surgery, the surgeon is securing a bone plate and needs to pre-thread the bone so that the screw will grab onto the bone securely. Which bone plating specialty instrument does the surgeon need for this?
- a. Tap
 - b. Drill bit
 - c. Depth gauge
 - d. Bone plate bender

ANS: A

Many special instruments are needed to place bone plates and screws to hold the plates to the bone. Placement of the screws requires that a hole be drilled with the appropriate size drill bit. After the hole has been made, a depth gauge is used to determine the length of screw that will be needed. After that, a tap is used to prethread the bone so the screw grabs onto the bone more securely. A dedicated screwdriver is then used to place the screw. Bone plates can be bent and conformed to the shape of the bone with either a handheld bone plate bender or a tabletop plate bender.

REF: p. 23

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

22. The veterinary technician is looking over the surgery schedule for tomorrow and sees three ophthalmic surgeries are scheduled. The technician knows that one instrument will not be needed tomorrow. Which instruments is most appropriate to leave out of the surgery room?
- Baby Metzenbaum dissecting scissors
 - Thumb tissue forceps
 - Beaver blade handle
 - Intramedullary pins

ANS: D

Intramedullary pins are used for internal fixation of bone during orthopedic procedures. Baby Metzenbaum dissecting scissors, thumb tissue forceps, and the Beaver blade handle are all used in ophthalmic surgeries.

REF: p. 21

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02

23. Which needle is most likely to be used in bovine surgical closures?
- Full-curved
 - Half-curved
 - Double-curved
 - Quarter-curved

ANS: C

Double-curved needles have both ends curved in opposite directions and generally are reserved for large animal surgery, especially bovine surgical closures. Half-curved needles are rarely used in veterinary surgery. Full-curved needles have the entire body of the needle involved in the curve. There is no indication that these are especially used in bovine surgical closures. The text does not discuss quarter-curved needles. Instead, curved needles can either be full curved, half curved, or double curved.

REF: p. 26

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

24. Which needle point is most useful for creating a sealed suture line in a patient's intestines?
- Taper-cut
 - Taper-point
 - Cutting-edge
 - Reverse-cutting

ANS: B

A taper-point needle has a sharp point that pierces and penetrates tissues without leaving small cuts because the cross section is rounded. It is best used in tissue when a sealed suture line is needed, such as for suturing intestine or other hollow organs. A taper-cut needle is easily used with tough fibrous tissue and some cardiovascular procedures. A cutting-edge needle may be most traumatic. A reverse-cutting needle is stronger than the conventional cutting needle. It cuts toward the edges of the wound, compromising the strength of the tissue.

REF: p. 27

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

25. A technician is prepping the surgery room for removal of a lens from a toy poodle due to cataract. Which of these would be safest for the surgeon to use for hemostasis?
- Cautery
 - Sterile surgical spears
 - Sterile surgical sponges
 - Sterile radiopaque surgical sponges

ANS: B

For intraocular procedures (e.g., corneal laceration, lens luxation), a more delicate device is needed. Cotton-tipped applicators can be sterilized and used, or surgical spears (e.g., Weck-Cel cellulose sponge surgical spears, Medtronic, Inc., Jacksonville, FL) are available commercially. The spears have an arrow shape and permit pinpoint control of hemorrhages in a small working area

REF: p. 25

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02 | VTNE: Domain 20.00 Surgical Nursing, Task 20.04

26. Which multifilament suture materials cannot be absorbed by the body and must be manually removed after healing?
- Polydioxanone
 - Polypropylene
 - Glycomer
 - Polyester

ANS: D

Of this list, only polyester is a multifilament, nonabsorbable suture material. Polypropylene is also nonabsorbable, but it is a monofilament; polydioxanone is absorbable. Glycomer is an absorbable monofilament.

REF: p. 27

TOP: VTNE: Domain 20.00 Surgical Nursing, Task 20.02