

Name: \_\_\_\_\_

Date: \_\_\_\_\_

### Quiz for Module 3: Experimental Surgery

This section must be completed by all researchers who are planning to conduct experimental surgical procedures. In addition, you will need to demonstrate competence in the procedures by documenting previous experience or through demonstration to the attending veterinarian.

- \_\_\_\_\_ 1. A surgical procedure on rats will only take 20 minutes. Since this involves such a brief period of anesthesia the surgeon does not need to put any insulation between the rat and the surgical table / counter, nor is it necessary to provide supplemental heating via circulating water blanket or warm water packs
  - a. True
  - b. False
  
- \_\_\_\_\_ 2. The animal welfare act and its regulations allow an exemption to limiting animals from being used in only one proposal with a major operative procedure. The Institutional Official, must make this request to the appropriate regional director of the USDA
  - a. True
  - b. False
  
- \_\_\_\_\_ 3. Surgery is defined as any activity that requires entrance into the body cavity
  - a. True
  - b. False
  
- \_\_\_\_\_ 4. Although the attending veterinarian explained to me why it is important to use proper needle drivers when placing sutures, someone else showed me how to tie knots using mosquito forceps. This should be all right
  - a. True
  - b. False
  
- \_\_\_\_\_ 5. Rats and mice are not covered under the Animal Welfare act; therefore surgery done on these animals need not be done in a dedicated surgical suite but must still follow proper aseptic surgical procedures using properly sterilized equipment
  - a. True
  - b. False
  
- \_\_\_\_\_ 6. For surgery protocols where contamination is anticipated, prophylactic antibiotics should include
  - a. Administration of a broad spectrum antibiotic a minimum of 2 hours prior to surgery with a full course of treatment following surgery
  - b. Administration of a broad spectrum antibiotic a minimum of 2 hours prior to surgery and for 24 hours afterward
  - c. A single dose of a long acting preparation of antibiotics
  - d. Any one of the above depending on the contamination

- \_\_\_\_\_ 7. You are planning a minor surgical procedure to obtain a fat and muscle biopsy from laboratory rats. Which of the following statements is not true:
- Rodent surgery need not be performed in a dedicated surgical facility but proper aseptic protocols must be followed
  - The surgical site needs to be clipped and prepped using a proper surgical scrub
  - Since this is a relatively minor procedure, instruments can be cleaned and rinsed in an appropriate disinfectant prior to use.
  - General anesthesia or proper physical restraint with a local anesthetic agent are both acceptable methods for pain management.
- \_\_\_\_\_ 8. Surgical glue (i.e. Nexaband) is more expensive than ethyl cyanoacrylate glues (i.e. Krazy glue) available in hardware stores. These less expensive products
- Are more cost effective, and for animals, may be substituted for surgical glue
  - Have a more pronounced exothermic reaction, and get too hot to apply to living tissues
  - Should not be used in mammals or birds but are ok for cold blooded vertebrates
  - B and C only
  - B and D only
- \_\_\_\_\_ 9. Prophylactic antibiotics are sometimes indicated for surgical protocols even if contamination is not anticipated. Proper use of prophylactic antibiotics for clean uncontaminated surgery conducted using proper aseptic protocols includes
- A single dose immediately after and once again 24 hour following surgery
  - A single dose 2 hours prior to the surgery and a shot of some long-acting preparation immediately afterward
  - A Single dose 2 hours prior to the start of the surgery
  - The use of a first or second generation cephalosporin
  - A and D only
  - C and D only
- \_\_\_\_\_ 10. The IACUC requires detailed information to be provided in the Assurance of Animal Care form prior to approval of any experimental surgical procedures (within our facilities, or in the field). Which of the following is (are) NOT relevant to IACUC review?
- Training and experience of the surgeon and anesthetist
  - The use of analgesics is appropriate
  - A description of the pre-surgical prep and surgical procedures
  - The size and type of suture material & needles to be used
  - All of the above are required for IACUC review
  - C and D are not required
- \_\_\_\_\_ 11. Your proposed surgical procedure will be performed on a small passerine bird. Since a standard drape is too heavy, and you can not adequately monitor the bird, you
- Choose to do the surgery without the drape
  - Prepare gas sterilized clear plastic drapes
  - Increase the size of the prepped surgery area
  - Any of the above

- \_\_\_\_\_ 12. According to USDA policy #14, no animal assigned to a proposal is to be used in more than 1 survival surgery, UNLESS
- a. The multiple procedures are included within one proposal, justified for scientific reasons by the PI and pre-approved by the IACUC
  - b. The PI has determined that multiple procedures are necessary to complete the project
  - c. The first major operative procedure was an emergency procedure as part of proper veterinary care
  - d. All of the above
  - e. A and C only
- \_\_\_\_\_ 13. What is the ideal tie for securing knots?
- a. Multiple square knots piled on top of each other
  - b. Multiple figure 8 knots
  - c. It varies depending upon the suture material being used
- \_\_\_\_\_ 14. You are proposing to conduct experimental surgery on lemmings. Prior to approval by the IACUC, you must
- a. Complete the required sections of the training program
  - b. Demonstrate your surgical competence to the attending veterinarian
  - c. Demonstrate your competence in anesthesia to the attending veterinarian
  - d. All of the above
- \_\_\_\_\_ 15. Common mistakes for new surgeons include:
- a. Not realizing when gloves, sutures, and / or instruments have been contaminated
  - b. Placing too many sutures in the wound, and therefore weakening the site
  - c. Tying the sutures too tight
  - d. Disregarding aseptic techniques for minor surgical procedures
  - e. All of the above
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