

### Skills Instructions

- Select **ONE** of the following ways to *describe* each skill within the designated case log.
  - Physiological effect the skill had on the patient
  - Rationale for using the skill in the case
  - Troubleshooting a problem or adverse event and what was done to solve the issue
  - Role the skill played in the overall management of the case
  - Set-up of equipment
  - Information about performing skill
- **NOTE:** Select the best option to describe each signed skill so that it fits within the contents of the case. The skill descriptions should **NOT** overshadow the information provided about the case.
- Only provide **ONE** case log per skill. The designated case log should be the BEST representation of that skill. If the skill is not described within the designated case log it will be rejected even if it is described elsewhere in the case logs.
- When asked, fill in additional information for skill on form.
  - **Anesthesia phase** refers to premedication, induction, maintenance or recovery.

## Large Animal Core Skills

*90% Mastery Required (54 of 61)*

Representative  
Case Log  
Number

Location  
Mastered

### Pharmacology

1. Administer and describe the use of an inhalant anesthetic via precision vaporizer.

**Indicate inhalant:** \_\_\_\_\_

2. Administer and describe the use of a phenothiazine.

**Indicate anesthesia phase drug was used:** \_\_\_\_\_

3. Administer and describe the use of a pure agonist opioid.

**Indicate anesthesia phase drug was used:** \_\_\_\_\_

4. Administer and describe the use of an agonist/antagonist opioid or a partial agonist opioid.

**Indicate anesthesia phase drug was used:** \_\_\_\_\_

5. Administer and describe the use of an alpha-2 adrenergic agonist.

**Indicate anesthesia phase drug was used:** \_\_\_\_\_

6. Administer and describe the use of a benzodiazepine.

**Indicate anesthesia phase drug was used:** \_\_\_\_\_

7. Administer and describe the use of IV ketamine plus a benzodiazepine as an induction protocol.

# Large Animal Core Skills

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8. Administer and describe the use of a dissociative anesthetic agent used in conjunction with another agent, other than a benzodiazepine, for induction.

**Indicate other drug used:** \_\_\_\_\_

9. Administer and describe the use of IV guaifenesin as part of an induction protocol.

10. Administer and describe the use of IV propofol as an induction agent.

11. Administer and describe the use of an IV opioid continuous rate infusion during the maintenance phase of anesthesia.

**Indicate opioid used:** \_\_\_\_\_

12. Administer and describe the use of an inhalant plus an analgesic CRI (other than an opioid) during the maintenance period of anesthesia.

**Indicate analgesic drug used as the CRI:** \_\_\_\_\_

13. Administer and describe the use of a TIVA protocol for maintenance of anesthesia, including drugs and dosages used.

14. Administer and describe the use of a non-steroidal anti-inflammatory agent.

**Indicate anesthesia phase drug was used:** \_\_\_\_\_

15. Administer and describe the use of a local anesthetic.

**Indicate anesthesia phase drug was used:** \_\_\_\_\_

16. Administer and describe the use of a positive inotrope.

**Indicate anesthesia phase drug was used:** \_\_\_\_\_

17. Administer and describe the use of a vasopressor.

**Indicate anesthesia phase drug was used:** \_\_\_\_\_

<p><b>Large Animal <u>Core</u> Skills</b>  <i>90% Mastery Required (54 of 61)</i></p>	<p>Representative Case Log Number</p>	<p>Location Mastered</p>
<p><b>Physiology and Physiologic Response</b></p>		
<p>18. Identify and describe an adverse cardiovascular reaction involving heart rate (e.g. bradycardia , tachycardia, arrhythmias, etc.).  <b>Indicate anesthesia phase it occurred:</b>_____</p>		
<p>19. Identify and describe an adverse cardiovascular complication involving blood pressure (e.g. hypotension, hypertension, etc.).  <b>Indicate anesthesia phase it occurred:</b>_____</p>		
<p>20. Identify and describe an adverse respiratory complication involving ventilation or oxygenation (e.g. hypercapnia, hypocapnia, apnea, respiratory distress, etc.).  <b>Indicate anesthesia phase it occurred:</b>_____</p>		
<p>21. Administer and describe the use of IV crystalloid fluid therapy during anesthesia.  <b>Indicate fluid type:</b>_____</p>		
<p>22. Administer and describe the use of IV synthetic colloid fluid therapy.  <b>Indicate fluid type:</b>_____</p>		
<p>23. Administer and describe the use of IV blood components during anesthesia.  <b>Indicate blood product:</b>_____</p>		
<p><b>Equipment Use and Understanding</b></p>		
<p>24. Setup, operate and describe use of a pulse oximeter to indirectly assess oxygen saturation.</p>		
<p>25. Setup, operate and describe use of continuous ECG monitoring to assess heart rate and rhythm.</p>		
<p>26. Setup, operate and describe use of nasal, esophageal, or rectal temperature probe to assess body temperature.</p>		
<p>27. Setup, operate and describe use of external active warming device.  <b>Indicate device used:</b>_____</p>		
<p>28. Setup, operate and describe use of a capnograph or capnometer to indirectly assess ventilation</p>		

<b>Large Animal <u>Core</u> Skills</b> <i>90% Mastery Required (54 of 61)</i>		Representative Case Log Number	Location Mastered
29. Setup, operate and describe use of an occlusion cuff and Doppler flow probe to indirectly assess blood pressure.			
30. Setup, operate and describe use of an oscillometric blood pressure monitoring device to indirectly assess blood pressure.			
31. Setup, operate and describe the use of an indwelling arterial catheter attached to a pressure transducer or aneroid manometer to directly assess blood pressure.			
32. Setup, operate and describe the use of a rebreathing system.  <b>Indicate oxygen flow rate used:</b> _____			
33. Properly use and describe function or setup of these anesthesia machine components: oxygen cylinder, vaporizer and flow meter.			
34. Properly use and describe function or setup of these anesthesia machine components: CO2 absorbent canister, and one way valves.			
35. Setup, operate and describe use of a mechanical ventilator.  <b>Indicate ventilator model:</b> _____			
36. Setup, operate and describe use of a waste gas scavenging system (active or passive).			
37. Setup, operate and describe the use of an oxygen demand valve.  <b>Indicate anesthesia phase it was used:</b> _____			
38. Provide supplemental oxygen via nasal insufflation and describe technique.  <b>Indicate anesthesia phase it was used:</b> _____			
39. Use a laryngoscope to perform endotracheal intubation and describe technique.			
40. Properly select an endotracheal tube and describe rationale for choice.  <b>Indicate species used:</b> _____			
<b>Laboratory Sample Collection &amp; Analysis</b>			
41. Collect blood sample (arterial or venous) for blood gas analysis and describe interpretation of results.			

<p><b>Large Animal <u>Core</u> Skills</b>  <i>90% Mastery Required (54 of 61)</i></p>	Representative Case Log Number	Location Mastered
42. Collect blood sample for blood glucose levels and describe interpretation of results.		
43. Collect blood sample for PCV and total protein and describe interpretation of results.		
Skills and Techniques		
44. Perform endotracheal intubation in the equine and describe technique.		
45. Perform endotracheal intubation in a second large animal species and describe technique. <b>Indicate species:</b> _____		
46. Perform nasotracheal intubation and describe rationale for use. <b>Indicate species:</b> _____		
47. Perform extubation and describe technique with regards to specific species requirements. <b>Indicate species:</b> _____		
48. Perform proper inflation of the endotracheal tube cuff and describe technique.		
49. Utilize a stylet or guide tube to assist with intubation and describe rationale for use.		
50. Auscultate thorax to assess cardio-respiratory function and describe rationale for performing.		
51. Apply manual intermittent positive pressure ventilation (IPPV) during the anesthetic procedure and describe rationale for use.		
52. Perform subcutaneous injection. Indicate drug administered, location and reason for selecting this route of administration.		
53. Perform intramuscular injection. Indicate drug administered, location and reason for selecting this route of administration.		
54. Perform intravenous injection. Indicate drug administered, location and reason for selecting this route of administration.		

<p style="text-align: center;"><b>Large Animal <u>Core</u> Skills</b>  <i>90% Mastery Required (54 of 61)</i></p>	<p>Representative Case Log Number</p>	<p>Location Mastered</p>
55. Perform and describe placement of a jugular catheter, indicate reason for placement.		
56. Perform and describe placement of an arterial catheter including location placed.		
57. Perform and describe assessment of palpating a peripheral pulse, including location used.		
58. Assign a pain score using a pain scoring system and describe assessment of pain.  <b>Indicate pain scoring system used:</b> _____		
59. Administer analgesic therapy and describe response to therapy using a pain scoring system.  <b>Indicate pain scoring system used:</b> _____		
60. Actively participate and describe your role as part of the team that administers Cardiopulmonary Resuscitation (CPR) to a patient.		
61. Administer and describe the use of emergency drugs used during cardiopulmonary arrest.		

# Large Animal Supplemental Skills

*50% Mastery Required (10 of 21)*

Representative  
Case Log  
Number

Location  
Mastered

1. Administer and describe the use of anticholinergic.

**Indicate anesthesia phase drug was used:** \_\_\_\_\_

2. Administer and describe the use of an alpha-2 agonist continuous rate infusion.

**Indicate anesthesia phase drug was used:** \_\_\_\_\_

3. Administer and describe the use of a benzodiazepine reversal agent.

4. Administer and describe the use of an opioid antagonist.

5. Administer and describe the use of thiopental, etomidate or alfaxalone as an induction agent.

**Indicate drug used:** \_\_\_\_\_

6. Administer and describe the use of an antiarrhythmic drug.

**Indicate anesthesia phase drug was used:** \_\_\_\_\_

7. Administer and describe the use of a non-depolarizing neuromuscular blocking agent.

8. Apply a peripheral nerve stimulator and describe the train of four technique to determine duration of neuromuscular blockade.

9. Administer and describe the use of an anticholinesterase inhibitor to reverse a non-depolarizing neuromuscular blocking agent.

10. Administer and describe use of a second inhalant anesthetic via precision vaporizer.

**Indicate inhalant:** \_\_\_\_\_

11. Administer and describe the use of an alpha-1 adrenergic agonist instilled intra-nasally.

12. Administer and describe the use of a beta-2 adrenergic agonist instilled intra-tracheally during IPPV.

# **Large Animal Supplemental Skills**

***50% Mastery Required (10 of 21)***

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13. Collect blood sample (arterial or venous) for colloid oncotic pressure or lactate analysis and describe interpretation of results.

14. Setup, operate and describe use of an anesthetic gas analyzer monitor.

15. Setup, operate and describe use of a Positive End Expiratory Pressure (PEEP) valve.

16. Perform endotracheal intubation in a third species and describe technique.

**Indicate species:** \_\_\_\_\_

17. Perform endotracheal intubation in a fourth species and describe technique.

**Indicate species:** \_\_\_\_\_

18. Perform and describe placement of an epidural injection, including drugs and dosages used.

19. Perform and describe placement of an epidural catheter, including drugs and dosages used.

20. Perform and describe placement of a local or regional block other than an epidural, including drugs and dosages used.

**Indicate block performed:** \_\_\_\_\_

21. Setup, operate and describe use of a non-rebreathing system.

**Indicate oxygen flow rate used:** \_\_\_\_\_



# ***FOR AVTAA USE ONLY***

*Demonstrate ability to assign appropriate ASA status after reviewing patient history, PE and diagnostic results in collaboration with veterinarian.*

*Demonstrate ability to use all information to formulate an acceptable and patient-specific anesthetic plan.*

*Demonstrate ability to assess proper anesthetic depth and adjust protocol according to signs. (e.g., eye position, palpebral reflex, jaw tone, etc).*

*Maintain complete and accurate individual patient anesthesia records (e.g., drugs used, parameters monitored, events during anesthesia properly documented, etc).*

*Demonstrate ability to calculate:*

- *Drug dose (mg or mcg) and mL volume for single injection*
- *CRI (amount of drug to add to diluent and mL/hr rate or amount of drug needed for syringe pump)*
- *Fluid rate (mL/hr and drips/sec)*

*\* Each of these calculations should be shown at least once in the case logs or case reports*

*Demonstrate ability to properly dilute drugs utilizing the stock solution to achieve a new concentration. Examples can be provided for single injection, continuous rate infusion or drug placed in fluid bag.*