

AEVNT ADVANCED SKILLS LIST 2019

All qualified candidates will have demonstrated advanced equine veterinary nursing skills. In their performance of their duties and responsibilities as an equine veterinary nurse technician, all candidates shall demonstrate expertise in the majority of the following areas of advanced skills. Advanced skills may only be performed on an equine patient. Acceptable equine species are *Equus caballus* (horse), *Equus asinus* (donkey) and any hybrid thereof i.e. mule and hinny.

All qualified candidates must show proficiency in 100% of skills in Category 1 and 75% of the skills in categories 2-13 listed.(which is equal to 145 skills out of the total remaining 193 skills)

Questions about or referencing to the skills list can be done so by category and skill number. For example skill 1.6 is “Perform catheterization of a jugular vein”, skill 4.3 is “Demonstrate foal folding”. Number references should not be used in the case logs.

- *In the performance of their duties and responsibilities as an equine veterinary nurse, an AEVNT shall show competency in the following Advanced Skills:*

1. Basic Core Skills

Skill	DVM or VTS-EVN Signature
1. Demonstrate proper and safe restraint of equine patients including the use of physical restraint devices, including but not limited to, shanks and twitches	
2. Perform proper foal restraint techniques	
3. Load and unload injured, compromised or sick equine patient in a horse trailer using proper safety techniques	
4. Properly use hoof picks, hoof rasps, hoof nippers, and hoof knife	
5. Administer parenteral medications intramuscularly, intravenously, & subcutaneously	
6. Perform catheterization of a jugular vein	
7. Be knowledgeable in the performance of a thorough dental examination, including aging of the horse	
8. Apply & use mouth speculums	
9. Set up and assist with a dental float procedure	
10. Perform a sheath cleaning	

11. Demonstrate working knowledge and administration of recommended vaccination & deworming schedules (as recommended by the AAEP)	
12. Demonstrate a working knowledge and understanding of equine terms and terminology through communication, application of skills and performance of duties	
13. Demonstrate a working knowledge and understanding of equine anatomy and physiology through communication, application of skills and performance of duties	
14. Demonstrate ability to identify an equine with nutrition concerns (body conditioning scoring)	
15. Demonstrate working knowledge of equine pharmacology	

2. Equine Nutrition

Skill	DVM or VTS-EVN Signature
1. Assist with client education in equine nutrition	
2. Demonstrate total (& partial) parenteral nutrition administration techniques	
3. Demonstrate a working knowledge of feeds ie. nutritional supplements etc.	
4. Recognize different types of hay and their nutritional differences	
5. Recognize different types of grains including oats, sweet feeds, and other pellets and their nutritional differences	

3. Reproduction and Genetics

Skill	DVM or VTS-EVN Signature
1. Prepare a mare for breeding exam (prep of the perineum...)	
2. Assist with artificial insemination	
3. Calibrate & operate computerized sperm motility analyzer	

4. Perform semen collection using mount mare & or phantom mare	
5. Prepare endometrial & testicular biopsies (for histological sectioning & staining)	
6. Prepare semen extender for cool shipment	
7. Prepare semen for freezing semen	
8. Prepare solutions and transport media for flushing embryos	
9. Safely handle breeding stallions for natural cover, semen collection, etc.	
10. Safely handle mares (including ovariectomized mares) during semen collection	
11. Set up and assist with standing flank oocyte aspirations and transfer	
12. Set up and assist with uterine infusion & lavage	
13. Standardize & use pH meter	
14. Standardize & operate osmometers	
15. Assist & prep for normal foaling delivery, dystocia, or C-section delivery	

4. Foal Care

Skill	DVM or VTS-EVN Signature
1. Perform foal emergency set – up & receiving	
2. Perform foal feeding via nasogastric tube	
3. Demonstrate foal folding	
4. Demonstrate foal naval umbilicus care techniques	
5. Perform milk collection on mares	
6. Perform nasogastric intubation	
7. Place and maintain indwelling feeding tubes	
8. Reposition recumbent foal	
9. Perform proper foal restraint techniques	
10. Demonstrate knowledge & set up for ICU foal care	
11. Demonstrate knowledge of and recognition of signs of imminent foaling by mare	

12. Assist with foaling, both routine and dystocia	
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5. Pharmacology

Skill	DVM or VTS-EVN Signature
1. Identify and maintain list and proper inventory control of all drugs, supplies, equipment needed for an equine practice (fixed as well as ambulatory)	
2. Demonstrate a working knowledge of race track and performance / sport horse drugs and supplies, including withdrawal times, rules regulations & resources	
3. Demonstrate knowledge of controlled substances, keeping a log and the rating system (Class I – V)	

6. Laboratory Diagnosis

Skill	DVM or VTS-EVN Signature
1. Properly collect diagnostic specimens for analysis (i.e. urine, blood, feces, cells, tissue, specimens for cytology)	
2. Perform an IgG assessment	
3. Perform a blood gas analyzer quality control	
4. Demonstrate adequate blood gas analyzer usage – obtain, measure & interpret (normal vs. abnormal)	
5. Perform arterial blood sample collection techniques	
6. Perform blood culture techniques	
7. Be knowledgeable regarding the regulations and proper procedure for a coggins (EIA) test & health certificate (proper collection & paperwork)	
8. Perform a CBC (manual/analyzer)	
9. Demonstrate knowledge in the evaluation of blood donor cross – match results & determination of the best donor	
10. Perform microbiology tests to include cultures & sensitivities	

11. Perform fecal examination using multiple methods	
12. Safely package lab specimens for shipment to outside labs according to federal regulations	

7. Anesthesia

Skill	DVM or VTS-EVN Signature
1. Perform endotracheal tube placement & management	
2. Perform ventilator set – up & administration of anesthetic gases.	
3. Maintain & use equine specific diagnostic monitoring equipment	
4. Perform set – up & interpretation (normal vs. abnormal) of capnography	
5. Direct arterial blood pressure equipment set – up & blood gas interpretation (normal vs. abnormal)	
6. Perform an electrocardiogram – attach leads correctly, understand basic interpretation & advanced interpretation (normal vs. abnormal)	
7. Demonstrate re- breathing bag usage	
Demonstrate nursing anesthesia skills specific to equine including the following:	-----
8. Demonstrate knowledge of analgesic drugs – dosages & usages	
9. Demonstrate knowledge of anesthetic agents and induction drugs	
10. Demonstrate knowledge of CRI calculations & administration	
11. Demonstrate knowledge of drugs for cardiac arrest	
12. Demonstrate knowledge of paralytic agents	
13. Demonstrate knowledge of reversal agents	
14. Demonstrate knowledge of synthetic colloids, hypertonic saline, blood, & their indications in the equine	
15. Demonstrate knowledge of the use of sodium bicarbonate and calcium	
16. Demonstrate knowledge of the use of anticholinergics and Inotropes	

17. Demonstrate knowledge of the use of Guaifenesin (GG)	
18. Assist with local and regional anesthesia	
19. Perform a mask induction of a foal	
20. Perform nasotracheal intubation	

8. Surgical Assistance

Skill	DVM or VTS-EVN Signature
1. Perform suction set – up & use	
2. Perform pre – operative patient preparation and induction assistance	
3. Perform/assist with post operative patient recovery	
4. Properly apply head & tail ropes for recoveries	
5. Properly place recovery hood	
6. Perform re –intubation (guide tube)	
7. Assist with an intercostal block	
8. Be knowledgeable on sterile fields and how to assist in a sterile environment	
9. Be knowledgeable on precautions to take with a contaminated surgery	
10. Demonstrate set up & use of electrocautery unit	
11. Demonstrate surgical laser set up & usage	
12. Operate hoist using safety techniques for both personnel & patient	
13. Demonstrate a knowledge of proper positioning & padding for procedures	
14. Set up, operate, clean & troubleshoot laparoscopic equipment	
15. Set up, operate, clean & troubleshoot arthroscopy equipment	
16. Safely handle & assist with chemotherapy implants or injections	
17. Properly package instruments for cold, gas, & steam sterilization as well as troubleshoot sterilization units & be aware of shelf life of all methods of sterilization	

9. Nursing Care / Fluid Therapy
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Skill	DVM or VTS-EVN Signature
1. Place a sterile urinary catheter in a stallion or gelding	
2. Place a sterile urinary catheter in a mare	
3. Perform blood collection for transfusions of a blood product	
4. Administer whole blood to an equine patient	
5. Demonstrate adequate knowledge of cardio pulmonary resuscitation (CPR) techniques	
6. Perform administration of oral medications & understand the pharmacokinetics of such	
7. Perform lateral thoracic vein catheterization	
8. Perform IV fluid administration on both gravity dial system & pump	
9. Demonstrate working knowledge of fluid doses & ability to calculate appropriate volumes of additives, fluid doses & drip rates	
10. Perform oxygen cannula placement	
11. Perform oxygen set up & therapy as directed	
12. Perform “Piggy back” fluids administration & demonstrate knowledge regarding interactions	
13. Demonstrate padding & positioning the recumbent horse	
14. Have a working knowledge of the set up and nursing care and safety of a horse in a sling.	
15. Reposition recumbent equine adult	
16. Place nasogastric tube for the purpose of stomach lavage & refluxing of patient & perform reflux procedure / administration of medications or liquids	
17. Obtain venous blood – cephalic vein	
18. Obtain venous blood – facial vein	
19. Demonstrate plasma selection & administration – set up, materials, monitoring (J_5 for endotoxemia, Hi-	

gamma IgG for FPT, botulism antitoxin, WNV...)	
20. Administer eye medication through sub –palpebral lavage system	
21. Apply fluorescein dye to eye for examination per DVM orders	
22. Assist with an auriculopalpebral block	
23. Perform proper eye examination using gross observation as well as ophthalmoscope examination for the purpose of data collection, not to diagnose	
24. Demonstrate nebulizer (i.e. Aero Mask/flexineb) set up & usage and cleaning	
25. Demonstrate use of inhaler set up & usage	
26. Demonstrate equine patient euthanasia techniques	
27. Demonstrate a working knowledge of advanced bandaging & wound management techniques including splints, casts, wound preps, & aseptic techniques	
28. Perform central venous guide wire catheterization to include over the wire catheters being placed in the jugular, lateral thoracic or cephalic veins	
29. Recognize signs of sepsis & demonstrate knowledge of management	
30. Demonstrate a working knowledge of outpatient nursing, including client communications and status of patient. (medical facility & ambulatory)	

10. Diagnostics / Treatment Procedures

Skill	DVM or VTS-EVN Signature
1. Set up, operate & clean endoscopic equipment	
2. Assist with performing an endoscopic examination	
3. Place a nasogastric tube (adult horse)	
4. Set up & assist with a cerebral spinal tap	

5. Assist with a re-breathing examination	
6. Prepare & assist with an abdominocentesis	
7. Prepare & assist with an arthrocentesis, thoracocentesis, or pericardiocentesis	
8. Set up, operate, position & mark correctly for distal limb radiographs	
9. Set up, operate, position & mark correctly for thoracic radiographs	
10. Set up, operate, position & mark correctly for abdominal radiographs	
11. Set up, operate, position & mark correctly for spinal radiographs	
12. Perform proper positioning & exposure of equine radiographs with a focus on those views normally taken for repository films or an extensive pre – purchase exam (multiple anatomical areas / multiple views)	

13. Demonstrate Doppler ultrasound set up & usage	
14. Prepare patient / assist with ultrasound exam of equine abdomen	
15. Prepare patient / assist with ultrasound examination of equine limbs	
16. Set up, operate & maintain ultrasound equipment	
17. Set up, operate & perform Shockwave therapy per DVM orders (under DVM supervision)	
18. Participate in neurological exam & provide assistance	
19. Assist with lameness examinations on a variety of cases	
20. Lunge horses using proper technique & safety measures	
21. Assist with round pen lameness examination	
22. Properly remove horseshoes	
23. Demonstrate proper use of hoof testers	
24. Trot horse in hand for lameness exam	
25. Perform flexion tests	
26. Perform musculoskeletal exam for the purposes of data collection (under DVM supervision)	

27. Prepare for / assist with regional limb	
28. Prepare for / assist with ultrasound guided injections or biopsies	
29. Perform site prep for nerve block & sterile site prep for joint injection	
30. Prepare for / assist with muscle biopsies	
31. Safely handle & assist with chemotherapeutic agents administration	
32. Assist with collection and preparation of biologic therapies (IRAP, stem cells, PRP)	
33. Assist/perform Magnetic Resonance Imaging	
34. Assist/perform CT	
35. Perform proper CO2 handling & usage techniques	

36. Demonstrate proper liquid nitrogen handling techniques	
37. Have knowledge of nuclear scintigraphy & be able to assist in procedures	
38. Prepare & assist with venogram / myelogram studies	
39. Be familiar with the recommendations for the use of & patient preparation for a hyperbaric O2 chamber	
40. Set up, operate & perform or assist with therapeutic ultrasound therapy per DVM orders (under DVM supervision)	
41. Set up, operate & perform or assist in e-stim therapy per DVM orders	
42. Set up, operate & perform or assist in therapeutic laser treatment per DVM orders	
43. Assist with the usage of high speed land treadmill for diagnostic events or therapeutic modalities	
44. Assist with or perform usage of water treadmill for diagnostic events or therapeutic modalities	

11. Equine Medical Emergencies

Skill	DVM or VTS-EVN Signature
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1. Recognize & respond to equine specific veterinary medical emergencies	
2. Perform emergency colic set up & receiving	
3. Perform emergency dystocia set up & receiving	
4. Perform receiving & set up for uterine prolapse	
5. Perform receiving & set up for a dummy / red bag foal	
6. Assist with & prepare for management of fracture patients	
7. Assist with & prepare for management of lacerations / traumas	
8. Assist with & prepare for neurologic emergencies (i.e. WNV, Rabies, EPM, EHV-1)	
9. Assist with pneumothorax & hemothorax chest tube placement	
10. Perform proper catheter placement in an emergency situation	
11. Perform blood collection for the purpose of transfusion	
12. Demonstrate a knowledge of any forms required & client communication in an emergency situation (i.e. euthanasia /surgery)	
13. Demonstrates knowledge regarding the process involved in collection of organ harvest (i.e. corneal, testicular or ovarian)	
14. Demonstrate a knowledge of receiving & set up for eye emergencies	
15. Demonstrate a knowledge of upper airway obstruction & be able to assist with tracheotomy placement	
16. Demonstrate how to provide proper triage over the phone... recognizing an emergency from a regular visit	

12. Office Procedures / Basic Hospital Practice
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Skill	DVM or VTS-EVN Signature
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1. Demonstrate a thorough knowledge of the complexities & differences involved in the management of an equine office, such as communication, ownership, scheduling, reports, ambulatory services, facilities and basic financial information such as budgets	
2. Demonstrate a working knowledge of race track and performance / sport horse regulations	
3. Demonstrate knowledge of pre purchase examinations : what is entailed, what to look for, paperwork, procedures, communication, legal requirements	
4. Perform medical records management	
5. Record dictation of examination notes into medical records	
6. Properly record patient notes in SOAP format	
7. Demonstrate a working knowledge of export and import regulations for equines	
8. Demonstrate a working knowledge of equine passport requirements and paperwork completion	
9. Demonstrate a working knowledge of all required forms for insurance, PPE, surgery, euthanasia, to including all legalities	
10. Be familiar with all regulatory bodies (USDA, FEI, AVMA PLIT, USEF, State Racing boards) as related to equines	
11. Demonstrate a working knowledge & adherence to DEA & controlled substance handling, storage, and recording	
12. Effectively communicate veterinarian's concerns to the client & demonstrate competency in explaining pertinent information with the client	

13. Safety Management and Biosecurity
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Skill	DVM or VTS-EVN Signature
1. Demonstrate isolation stall set up	
2. Demonstrate isolation stall cleaning	

3. Demonstrate Biosecurity protocol set up	
4. Demonstrate knowledge regarding USDA transport requirements	
5. Demonstrate knowledge regarding quarantine requirements & procedures	
6. Demonstrate knowledge in the transmission of diseases & pathogens	
7. Demonstrate knowledge in zoonosis as applied to equine species	
8. Demonstrate knowledge of management of rabies specimens	

*****Please note skills sheets must be signed by a Veterinarian who is a member of AAEP, a Veterinary diplomat employed in an equine practice, or a VTS – EVN.*****

Applicant Information

Applicant Name (Print) _____

Date _____

Applicant Signature _____

Signature Listing

Signature _____ Initials _____

Name (print) _____

Credentials _____ Date _____

Phone Number _____ Email _____

Signature _____ Initials _____

Name (print) _____

Credentials _____ Date _____

Phone Number _____ Email _____

Signature _____ Initials _____

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