

Veterinary Nursing/Technology Essential Skills List

The veterinary technician's role is to provide professional health care in conjunction with the veterinarian.

The duties of veterinary technicians shall be performed under the direction, supervision, and responsibility of veterinarians. These duties shall be accomplished in compliance with federal, state, and local laws. These duties shall not include diagnosing, prescribing, or performing surgery except where explicitly permitted by regulation.

The veterinary technician must be knowledgeable in the care and handling of animals, their normal and abnormal life processes, medical and surgical nursing, anesthesiology, diagnostic imaging, and clinical laboratory procedures.

The Essential and Recommended Skills List (Skills List) is a resource for veterinary technology programs to utilize for curriculum development and instruction as well as an accreditation monitoring tool for CVTEA. The Skills List represents the complex role of the veterinary nurse/technician and encourages instruction in motor, critical thinking and clinical application skills at the entry veterinary technician level. A veterinary nurse/technician student, having completed the curriculum, will have gained the prerequisite knowledge and perspective to enable him/her to carry out the following decision-making abilities.

The program must provide documentation of standard criteria for evaluating each student's completion of every essential skill. These criteria must be consistent with standards that reflect contemporary veterinary medicine.

Although the Skills List will serve as a foundation on which to build each program's curriculum, Veterinary Technology instructors are encouraged to expand the list with additional skills representing current trends in veterinary medicine including each observable step necessary for completion of skill.

Required tasks are denoted by an asterisk (*).

Italicized text denotes hands-on (psychomotor) skills; all other text denotes didactic (knowledge-based) skills.

The term "**demonstrate**" along with a **didactic (knowledge-based) skill** means that the instructor is free to determine the best method(s) for the student to demonstrate mastery or understanding of that particular skill to the instructor. The term "**demonstrate**" is not synonymous with "hands-on".

Some Skills may be performed by a group of program students. The appropriate size of the group will be determined by the task being performed taking into account humane treatment of the subject animal. Each member of the group must play an active role in the completion of the task.

Students are expected to physically perform skills that are *italicized*. Skill assessment is expected to be performed on live animals.

The Skills List is not all inclusive. Review the full/extensive list of Specific Skills here:

<https://www.avma.org/education/center-for-veterinary-accreditation/committee-veterinary-technician-education-activities>

1. OFFICE AND HOSPITAL PROCEDURES, CLIENT RELATIONS, AND COMMUNICATION

Management

Skill: Participate in facility management utilizing traditional and electronic media and appropriate veterinary medical terminology and abbreviations.

Tasks:

- Schedule appointments, admit, discharge and triage according to client, patient and facility needs through phone and in-person contact*
- Create and maintain individual client records, vaccination certificates, and other appropriate forms*
- Maintain medical records, radiographs, lab reports, etc. for easy retrieval.*
- Create and maintain all appropriate facility records and logs in compliance with regulatory guidelines (e.g., radiography, surgery, anesthesia, laboratory, controlled substance) *
- Manage inventory control*
- Recognize roles of appropriate regulatory agencies*
- Maintain appropriate disposal protocols for hazardous materials*
- Establish and maintain appropriate sanitation and infection control protocols for a veterinary facility, including patient and laboratory area*
- Handle daily client-based financial transactions*

Decision-making abilities: Taking into account the characteristics of the facility, patients and clients, the veterinary technician will effectively contribute to the professional and efficient operation of the facility in order to provide maximum benefits to clients, patients, and the facility.

Communication

Skill: Communicate in a professional manner in all formats – written, oral, non-verbal, and electronic.

Tasks:

- Describe interpersonal skills in a team-based healthcare setting*
- Practice interpersonal and public relations skills*
- Demonstrate telephone etiquette* (e.g. through role playing, educational resources, etc.)
- Recognize the legality of the veterinary-client-patient relationship*
- Develop and provide client education in a clear and accurate manner at a level the client understands (i.e., oral and written form, including educational handouts) *
- Apply crisis intervention/grief management skills with clients*

Decision-making abilities: Taking into account the patient, client, staff and circumstances, the veterinary technician will effectively and accurately acquire and convey information utilizing an appropriate communication mode.

Laws and Ethics

Skill: Follow and uphold applicable laws and the veterinary technology profession's ethical codes to provide high quality care to patients.

Tasks:

- Understand and observe legal boundaries of veterinary health care team members*
- Interact professionally with clients and fellow staff members*
- Demonstrate a commitment to high quality patient care*
- Respect and protect the confidentiality of client and patient information*

Decision-making abilities: Given knowledge of legal limitations and applicable ethical standards, the veterinary technician will carry out her/his duties within appropriate legal boundaries and maintain high ethical standards to provide high quality service to clients, patients, employers and the veterinary profession.

2. PHARMACY AND PHARMACOLOGY

Administration

Skill: Safely and effectively administer prescribed drugs to patients.

Tasks:

- Read and follow veterinarian's pharmacy orders*
- Recognize groups of drugs, their mechanisms, and clinically relevant side effects*
- Recognize the safe and effective manner in which vaccines must be administered; recognize and explain common side effects*
- Accurately perform appropriate calculations; use weights and measures correctly*
- Explain appropriate drug administration route methods, and when used*
- Monitor therapeutic responses*
- Accurately record medical information*
- Explain controlled substance regulations*
- Demonstrate compliance with all federal and state regulatory guidelines for drug purchase, storage, administration, withdrawal, dispensing, disposal, and inventory control (e.g., biologics and therapeutic agents, pesticides, and hazardous wastes) *

Decision-making abilities: Given the characteristics of the patient, the instructions of the veterinarian and the medication to be used, the veterinary technician will calculate the correct amount of medication in the prescribed form and administer it by the prescribed route to maximize therapeutic benefits and minimize the potential for adverse effects. The veterinary technician shall also be able to differentiate between abnormal and normal responses to medication.

Dispensing

Skill: Accurately dispense and explain prescribed drugs to clients.

Tasks:

- Describe how to properly prepare medications for dispensing, including performing accurate calculations*
- Demonstrate compliance with regulations governing prescription drugs versus over-the-counter drugs*
- Describe regulations governing maintenance of controlled substances logbook*
- Demonstrate compliance with all federal and state regulatory guidelines for drug purchase, storage, administration, withdrawal, dispensing, disposal, and inventory control (e.g., biologics and therapeutic agents, pesticides, and hazardous wastes) *
- Explain drug information to clients (e.g., handling, storage, administration, side-effects, drug interactions, safety, reasons for use of drug) *

Decision-making abilities: Given the characteristics of the patient, the instructions of the veterinarian and the medication to be used, the veterinary technician will (1) accurately calculate and dispense the correct form and dose of medication and (2) communicate necessary client information in order to maximize safety, compliance with prescribed therapy and successful treatment of the patient. The veterinary technician should also be proficient at performing inventory control procedures.

3. NURSING

Patient Assessment

Skill: Demonstrate and perform patient assessment techniques in a variety of animal species.

Tasks: Multiple Group Activities

- Recognize common domestic animal species and breeds*
- Describe and use common animal identification methods*
- Recognize and assess body language and behaviors (including pain assessment scales) for various animal species*
- Demonstrate effective and appropriate humane restraint techniques to include efforts to reduce stress during handling for various animal species*
- Obtain a thorough patient history*
- *Demonstrate the ability to obtain patient data**
- *Perform ocular diagnostic tests (including tonometry, fluorescein staining and Schirmer tear test) **
- *Properly collect diagnostic specimens for analysis (ex: urine, blood, feces, specimens for cytology) **
- *Perform venipuncture various sites and various species**
- *Collect urine sample (various species)**
- Prepare diagnostic specimens for shipment*

Decision-making abilities: Given the characteristics of the patient, the veterinary technician will safely and efficiently obtain subjective and objective patient data that will allow accurate evaluation of the patient's physical status with minimum stress and maximum safety.

Patient Care

Skill: Understand and demonstrate husbandry, nutrition, therapeutic and dentistry techniques appropriate to various animal species.

Tasks: Husbandry

- Grooming practices and procedures*
- *Perform microchip scanning and implantation*
- *Environmental conditions: implement sanitation procedures for animal holding and housing areas**
- Describe methods of permanent identification*

- Describe methods of breeding/reproduction techniques*
- Describe methods of care of orphan animals
- Describe methods of nursing care of newborns*

Decision-making abilities: Given the characteristics of the patient, the veterinary technician will implement appropriate husbandry techniques to enhance wellness and reduce risk of disease, injury and stress.

Tasks: Nutrition

- Understand life stage energy and nutrient requirements of well animals (dog, cat, horse/pony/donkey/mule, cow) *
- Identify common grains and forages
- Understand key nutritional factors in disease conditions*
- Understand current developments in nutritional supplements and additives including benefits and potential toxicities*
- Understand and identify substances that when ingested result in toxicity*
- Develop and communicate hospital nutrition protocols*

Decision-making abilities: Given the characteristics of the patient, the veterinary technician will understand appropriate and inappropriate dietary components for various life stages and therapeutic regimens (e.g., therapeutic foods) in order to promote optimal health, enhance recovery and manage chronic disease conditions. The veterinary technician will also explain nutritional recommendations to clients and reinforce owner compliance.

Tasks: Therapeutics

- *Administer parenteral medications**
- *Administer enteral medications**
- *Administer topical medications (including otic and ophthalmic) **
- *Administer enemas*[GROUP]*
- *Gastric intubation (dog or cat) * [GROUP]*
- *Gastric lavage (dog)*
- *Collect/evaluate skin scrapings**
- Fluid therapy procedures*:
- *Apply and remove bandages and splints**
- *Remove casts*
- Identify and explain methods of wound management and abscess care*
- Understand principles of animal physical rehabilitation including, but not limited to, passive range of motion (PROM) and recumbent patient care*
- Perform critical care procedures:
- Apply established emergency protocols (*simulation acceptable*):

Decision-making abilities: Given the directions of the veterinarian and the characteristics of the patient, the veterinary technician will carry out appropriate therapeutic techniques in order to achieve maximum health benefits for the patient.

Tasks: Dentistry

- *Perform Comprehensive Oral Health Assessment and Treatment (COHAT) (scaling and polishing) (manual and machine) **
- Communicate client education regarding home care*
- Float teeth (horses/pony/donkey/mules)

- Trim teeth (rabbits, rodents, pigs)

Decision-making abilities: Given the characteristics of the patient, the veterinary technician will recognize a patient's dental health status and perform techniques, as prescribed by a veterinarian, appropriate to the species and its condition in order to promote and maintain dental health.

4. ANESTHESIA

Patient Management

Skill: Safely and effectively manage and maintain patients in all phases of anesthesia.

Tasks:

- Calculate dosages of appropriate anesthetic-related drugs*
- *Administer anesthetic-related drugs (injection, endotracheal tube, mask) **
- *Place endotracheal tubes in patients **
- *Utilize clinical signs and appropriate equipment to monitor patient status during anesthetic procedures* (e.g., esophageal stethoscope, blood pressure monitor, capnometer, electrocardiogram, pulse oximeter) **
- Evaluate patient and implement pain management protocols as directed*
- Recognize and respond appropriately to patients in compromised states*
- Perform appropriate resuscitation procedures as needed (e.g., calculate and administer appropriate anesthetic antagonists and emergency drugs as directed) *
- *Complete controlled substance log** (does not need to be official controlled substance log; mock logs may be utilized)
- *Record and maintain anesthesia records**

Decision-making abilities: Given the characteristics of the anesthetized patient and the procedure being performed, the veterinary technician will work with the veterinarian to:

1. Assess the patient's risk status and determine appropriate anesthetic and peri-anesthetic protocols to provide effective pain management and maximum anesthetic safety and effectiveness.
2. Choose and utilize appropriate techniques and equipment to accurately and effectively monitor the patient's ongoing status before, during and after anesthesia to provide for adequate anesthesia, analgesia and a safe recovery.

Equipment/Facility Management

Skill: Safely and effectively select, utilize and maintain anesthetic delivery and monitoring instruments and equipment.

Tasks:

- *Maintain and operate anesthetic delivery and monitoring equipment**

Decision-making abilities:

1. Given the characteristics of the anesthetic instruments and equipment being used, the veterinary technician will recognize and respond appropriately to equipment malfunctions or inappropriate equipment setup to ensure proper function and provide maximum benefit to ensure safety of the patient and staff.

- Given the requirements of the anesthetic protocol, the veterinary technician will select, evaluate and adjust equipment to ensure proper function and provide maximum benefit to ensure safety of the patient and staff.

5. SURGICAL NURSING

It is essential that technicians have knowledge of routine surgical procedures and related equipment, including surgeries in these categories:

- ovariohysterectomy – (dog, cat) *
- cesarean section – all common species*
- orthopedic procedures*
- orchietomy – all common species*
- tail docking*
- onychectomy – (dog, cat) *
- laparotomies – all common species*
- dystocia in common species*
- dehorning – (cattle, goats) *
- prolapsed organs – common types, species, and incidence*

Patient Management

Skill: Understand and integrate all aspects of patient management for common surgical procedures in a variety of animal species.

Task:

- Properly identify patients and surgical procedures*

Decision-making abilities: Given the characteristics of the patient and the surgical procedure to be performed, the veterinary technician will use medical records and patient identification methods to assure that the patient and scheduled procedures are correct.

Task:

- Patient assessment:

Decision-making abilities: Given the characteristics of the patient and the surgical procedure to be performed, the veterinary technician will obtain the patient's vital signs, note any specific physical abnormalities, ensure pre-surgical tests have been completed, ensure coordination between surgical and anesthesia teams, and report the patient assessment to the veterinarian.

Task:

- Palpate the urinary bladder and express it as needed**
- Prepare surgical site using aseptic techniques**

Decision-making abilities: Given the characteristics of the patient and the surgical procedure to be performed, the veterinary technician will identify the appropriate area of hair to be removed and select appropriate methods to reduce microbial flora on the skin in the area of surgical site in order to decrease the chance of surgical wound contamination.

Task:

- Position patient for common procedures**

Decision-making abilities: Given the characteristics of the patient and the surgical procedure to be performed, the veterinary technician will position the patient appropriately to provide maximum convenience for the surgeon and maximum safety and benefit for the patient.

Task:

- Provide surgical assistance:

Decision-making abilities: Given the characteristics of the patient and the surgical procedure to be performed, the veterinary technician will understand and utilize appropriate aseptic techniques to assist operative personnel in order to provide maximum safety and benefit to the patient.

Task:

- Coordinate pain management with the anesthesia/surgical team*

Decision-making abilities: Given the characteristics of the patient and the surgical procedure to be performed, the veterinary technician will assure that anesthetic and post-operative pain management protocols are appropriate to provide maximum safety and benefit to the patient.

Task:

- Provide post-operative care:

Decision-making abilities: Given the characteristics of the patient and the surgical procedure to be performed, the veterinary technician will understand and administer the appropriate methods of post-operative care to assure maximum safety and benefit to the patient.

Procedural Management

Skill: Understand and provide the appropriate instruments, supplies and environment to maintain asepsis during surgical procedures.

Tasks:

- *Prepare surgical instruments and supplies**
- *Prepare gowns, masks, gloves, and drapes**
- *Operate and maintain autoclaves**
- *Sterilize instruments and supplies using appropriate methods**
- *Perform pre-surgical set-up**
- Identify and know proper use for instruments*
- Identify common suture materials, types, and sizes*
- *Provide operating room sanitation and care**
- *Perform post-surgical clean-up (e.g., equipment, instruments, room, proper disposal of hazardous medical waste) **

Decision-making abilities: Given the characteristics of the patient and the surgical procedure to be performed, the veterinary technician will properly select, wrap and sterilize appropriate instruments and supplies and prepare and maintain the surgical environment to ensure maximum safety and benefit to the patient

6. LABORATORY PROCEDURES

Specimen Management

Skill: Recognize proper handling, packaging and storage of specimens for laboratory analysis to ensure safety of patients, clients, and staff.

Tasks:

- *Select and maintain laboratory equipment**
- *Implement quality control measures* [GROUP]*
- Describe how to ensure safety of patients, clients and staff in the collection and handling of samples*
- *Prepare, label, package, and store specimens for laboratory analysis**

Decision-making abilities:

1. Given the characteristics of the patient and the requested analysis, the veterinary technician will properly prepare, handle and submit appropriate samples for diagnostic analysis in order to ensure maximum accuracy of results.
2. Given the characteristics of laboratory instruments and equipment, the veterinary technician will determine proper maintenance and quality control procedures necessary to ensure accurate results.

Specimen Analysis

Skill: Properly perform analysis of laboratory specimens.

Tasks:

- *Perform urinalysis:*
- Perform CBC to include:
- *Perform microscopic exam of blood film:*
- Calculate hematologic indices*
- *Coagulation tests – perform one of the following*:* [GROUP]
- *Perform blood chemistry tests (BUN, glucose, common enzymes) **
- *Perform serologic test* (e.g. ELISA, slide/card agglutinations, lateral flow tests)*
- Identify blood parasites:
- Perform parasitological procedures for external parasites and identify:
- *Perform diagnostics procedures for parasites:*
- Identify common parasitic forms:
- Perform coprologic tests
- *Perform microbiologic procedures/evaluations:*
- *Perform cytologic evaluation:*
- Perform necropsy procedures:

Decision-making abilities:

1. Given the characteristics of the patient, the specimen submitted and the results of the analysis, the veterinary technician will be able to recognize accurate vs. erroneous results in order to provide maximum diagnostic benefit.
2. Given the laboratory specimen collected and characteristics of the patient, the veterinary technician will determine appropriate methodology and carry out analytical procedures necessary to provide accurate and precise diagnostic information.
3. Having determined the accuracy of analytical results, the veterinary technician will work with the veterinarian to determine if a need exists for additional laboratory tests that will provide useful diagnostic information.

7. IMAGING

Skill: Safely and effectively produce diagnostic radiographic and non-radiographic images.

Tasks:

- *Implement and observe recommended radiation safety measures**
- *Implement radiographic quality control measures**
- *Properly utilize radiographic technique charts**
- *Describe the modifications of diagnostic imaging techniques as they apply to mice or rats, guinea pigs, lizards, and amphibians**
- *Position live animals and produce diagnostic radiographic images (dogs*, cats*, horses/ponies/donkeys/mules*, and birds)*
- *Position live animals or intubated non-preserved specimens, and utilize dental radiographic equipment to produce diagnostic intra-oral full mouth dental radiographic images (dog or cat) **
- *Appropriately label and store images**
- *Demonstrate completing a radiographic log for systems, reports, files, and records**
- *Describe radiographic contrast studies for one of the following*:*
- *Perform, on a sedated canine, radiographic techniques utilized in screening for canine hip dysplasia* [GROUP]*
- *Demonstrate proper maintenance of radiographic equipment, including recognition of faulty equipment operation**
- *Use and care of ultrasonography equipment**
- *Use and care of endoscopic equipment*
- *Explain ultrasound procedures**

Decision-making abilities:

1. Given the characteristic of the patient and the radiographic study that has been requested, the veterinary technician will properly (1) prepare radiographic equipment, (2) measure and position animals using topographic landmarks, (3) choose an appropriate radiographic technique to minimize the need for repeat exposures (4) produce the latent image, (5) analyze the final radiograph for quality in order to provide maximum diagnostic benefit.
2. Given a radiograph, the veterinary technician will be able to determine if the image is of diagnostic quality. If the image is not diagnostic, the veterinary technician will be able to offer options to correct deficiencies in order to provide maximum diagnostic benefit and minimize personnel radiation exposure from unnecessary repeat exposures.
3. Given knowledge of the health risks associated with radiographic procedures and effective safety procedures, the veterinary technician will exercise professional judgment to minimize risks to personnel and patients during radiographic procedures to ensure safety.
4. Given the characteristics of the patient and the non-radiographic imaging study that has been requested, the veterinary technician will properly (1) prepare the imaging site and equipment and (2) position patients appropriately for the study being conducted.

8. LABORATORY ANIMAL PROCEDURES

Skill: Safely and effectively handle common laboratory animals used in animal research.

Tasks: Mice or rats, and rabbits

- *Recognize and restrain (mouse/rat, rabbit) **
- *Determine sex and understand reproduction (mouse/rat, rabbit) **

- Perform and/or supervise basic care procedures:
- *Perform methods of injection:*
- *Collect blood samples*
- *Perform oral dosing (mouse/rat) * [GROUP]*
- Have working knowledge of anesthetic and recovery procedures*
- Identify and describe clinical signs of common diseases*
- *Perform necropsy and collect specimens*
- *Clean and medicate ears (rabbit)*
- *Anesthetize mouse/rat, and rabbit*

Tasks: Non-human primates

- Understand restraint of non-human primates
- Classify zoonotic diseases and modes of transmission

Decision-making abilities: The veterinary technician will be familiar with the basic principles of animal research and understand the utilization of laboratory animals in animal research. The veterinary technician will also have knowledge of federal, state, and local animal welfare regulations.

9. AVIAN, EXOTIC, & SMALL MAMMALS PROCEDURES

Skill: Understand the approach to providing safe and effective care for birds, reptiles, amphibians, guinea pigs, hamsters, gerbils, and ferrets.

Tasks:

- *Recognize, understand, and perform restraint techniques of birds*, reptiles, amphibians, and ferrets*
- Identify unique husbandry issues for each species (birds, reptiles, amphibians, guinea pigs, hamsters, gerbils, and ferrets) and provide client education*:
- *Demonstrate the ability to perform a physical exam and accurately record results: birds*, reptiles, amphibians, and ferrets*
- *Perform nail trim (bird*, exotic, small mammal) [GROUP]*
- *Perform injections using appropriate sites*
- *Perform oral dosing*
- Administer drugs or medicaments using appropriate sites and routes
- Identify appropriate sites for intravenous catheter placement
- Recognize and explain methods of tube feeding in birds
- Perform laboratory procedures
- *Anesthetize birds and exotic animals*
- Recognize normal and abnormal behavior patterns
- Explain inadvisability of keeping wildlife as pets
- *Collect blood samples*

Decision-making abilities: Given the unique requirements of these species, the veterinary technician will safely obtain subjective and objective data that will allow evaluation of the patient. The veterinary technician will be able to:

1. identify husbandry issues
2. discern appropriate from inappropriate nutritional support
3. recognize normal from abnormal behavior patterns

Last update to this section: January 2025

<https://www.avma.org/education/center-for-veterinary-accreditation/committee-veterinary-technician-education-activities>

The AVMA recognizes the value of veterinary technicians as an integral component of veterinary medicine and urges full utilization of veterinary technicians. The veterinary profession is enhanced through efficient utilization of each member of the veterinary health care team by appropriate delegation of tasks and responsibilities to support staff.

Individuals contemplating a career in veterinary technology should attend an AVMA CVTEA-accredited program at an institution of higher learning where instruction is conducted in laboratories or clinical settings with the humane use of live animals.

The AVMA CVTEA is charged with the responsibility of providing and monitoring AVMA accreditation of programs in veterinary technology. All accredited programs must meet the Standards of Accreditation of the CVTEA to ensure the quality of the educational experience and the assessment of student knowledge and skills.

<https://www.avma.org/education/center-for-veterinary-accreditation/committee-veterinary-technician-education-activities/cvtea-accreditation-policies-and-procedures-standards>