THE VETERINARIAN-CLIENT-PATIENT RELATIONSHIP

The veterinarian-client-patient relationship (VCPR) is the basis for interaction among veterinarians, their clients, and their patients. A VCPR exists when all of the following conditions have been met:

- The veterinarian has assumed responsibility for making clinical judgements regarding the health of the animal(s) and the need for medical treatment, and the client has agreed to follow the veterinarian’s instructions.

- The veterinarian has sufficient knowledge of the animal(s) to initiate at least a general or preliminary diagnosis of the medical condition of the animal(s). This means that the veterinarian has recently seen and is personally acquainted with the keeping and care of the animal(s) by virtue of an examination of the animal(s), or by medically appropriate and timely visits to the premises where the animal(s) are kept.

- The veterinarian is readily available, or has arranged for emergency coverage, for follow-up evaluation in the event of adverse reactions or the failure of the treatment regimen.

VACCINATION PRINCIPLES
(Approved by the AVMA Executive Board in April 2001; revised April 2007)

Introduction

Medical decisions concerning vaccine selection and administration protocols are among the most complicated medical decisions facing veterinarians today. The reasons are numerous and include, but are not necessarily limited to 1) continual changes in our understanding of the immune system; 2) changes in local/regional population susceptibilities to various diseases; 3) increased animal valuation with related liabilities; 4) longer animal life expectancies; and 5) improved medical record systems which allows for better tracking of the short, medium, and long-term effects of vaccine use/administration. Other contributing factors include improved, 1) understanding of infectious diseases; 2) knowledge of the biologic regulatory licensing/labeling, and 3) awareness of potential risks associated with vaccine use/administration.
COBTA has studied the issues of veterinary vaccinology and immunology, including a review of the scientific literature with interactive testimony of experts from academia, veterinary vaccine manufacturers, state/federal governments, and veterinary private practice. Topics included safety, efficacy, duration of immunity, research and development of vaccines, vaccine licensing, product labeling, adverse events, adverse event reporting, governmental oversight of manufacturers, and Legal issues associated with medical procedures.

Vaccines have played a significant role in enabling people and animals to live longer and healthier lives in this world filled with microbial pathogens. Vaccine products vary in efficacy and safety and are not necessarily indicated for all patients. Modern science continues to develop strategies and technologies for safer and more efficacious vaccines. Consequently, thorough evaluations of the potential for disease exposure, individual patient susceptibility to various diseases, and the risks/benefits associated with vaccination, are necessary in order to establish optimal health care programs for each individual patient.

Conclusions

COBTA concludes there are insufficient data available to scientifically determine a single best vaccination protocol regimen for application to all animals globally. Despite significant advances in our knowledge of antigens and antigen presentation, gaps still remain in our understanding of the immune system’s acute and chronic reaction to multiple vaccinations. The body of knowledge surrounding the genetic variability within individual breeds or species and the resulting idiopathic responses to vaccination (including vaccine-associated adverse reactions), is increasing but remains too inconclusive to make specific recommendations appropriate for all patients. Consequently, COBTA believes that a customized approach to recommended vaccination protocols is the safest and most effective method to medically address the increasing diversity in patients presented for immunization.

Under a veterinarian-client-patient relationship, the practitioner and client must determine the best patient care programs for implementation. Since our knowledge base is constantly evolving, vaccination decisions require a thorough and ongoing review of scientific information and expert opinion in order to appropriately customize vaccine recommendations for individual animal patients.
The one-year revaccination recommendation found on many vaccine labels is often based on historical precedent and was allowed by USDA regulation since it was based on the best scientific knowledge available at that time, which did not necessarily include product specific data. Even in those cases where scientific data were submitted to qualify a revaccination label claim, the data generally targeted a minimum duration of immunity and did not necessarily resolve the question regarding average or maximum duration of immunity.

Vaccination is a potent medical procedure with both risks and benefits. While there is evidence that some vaccines provide immunity beyond one year, revaccination of patients with sufficient immunity does not necessarily add to their disease protection and may increase the potential risk of post-vaccination adverse events.

Serologic titers may not accurately predict immunity from disease. With respect to many infectious diseases, it is not currently possible to determine the immune status of an animal without assessing response to challenge. Due to the emergence of newer and improved antibody tests, serological assays are being used to determine immune status and establish vaccination protocols for animal patients. Caution should be exercised to make sure that serological titers have been clinically correlated to host-animal protection for the specific disease and species being tested.

Adverse events may be associated with the antigen, adjuvant, carrier, preservative, or a combination thereof. Possible adverse events include, but are not necessarily limited to, failure to immunize, anaphylaxis, immunosuppression, autoimmune disorders, transient infections, long-term infected carrier states, and local development of tumors. The role of genetic predisposition to adverse events needs further exploration and definition.

Vaccine program goals include providing optimal immunity against clinically relevant diseases the patient is at-risk to contract, while minimizing the potential for adverse events.

Multiple sources of information can be of value to practitioners in their review of vaccines and infectious diseases, including scientific data and opinion from experts, species and specialty groups, manufacturers, and government agencies. For example, the American Animal Hospital Association and American Association of Feline Practitioners have produced extensive documents giving specific recommendations for companion animals. All sources of scientific information and expert opinion need to be carefully and critically considered to properly prepare the customized vaccine programs animal patients require.
PRINCIPLES AND PRACTICE OF VACCINATION

Vaccine Application

The proper application of vaccines to animal populations has enhanced their health and welfare, and prolonged their life-spans. The risks to animal health from non-vaccination are significant.

The goal for a vaccination program is to prevent disease and thereby promote optimal patient, herd, and/or public health.

Unnecessary stimulation of the immune system does not necessarily result in enhanced disease resistance, and may increase the potential risk of post-vaccination adverse events.

Disease carriers, including animals that shed infectious agents but do not necessarily show signs of illness, are sources of infection for susceptible animals. Sufficient immunity within a population of animals is an important component of preventing disease prevalence. Programs targeting immunization of susceptible animals are critical to disease control.

Vaccination protects a population of animals by providing a level of resistance to a disease in those individual patients that are able to respond. Vaccination does not protect every individual patient even when they are properly vaccinated.

There is a critical need for more fully developed, scientifically based, and statistically valid evaluation of vaccine products to provide practitioners with a basis for developing vaccination programs that maximize benefits and minimize associated risks for the patients under their care.

Vaccination is a potent medical procedure associated with both benefits and risks for the patient. Adverse events, including some that are potentially severe, can be unintended consequences of vaccination.

Vaccine Administration

Information about the benefits and risks of vaccination are important to practitioners, owners, and the general public. Appropriate decisions concerning individual vaccine selection and vaccination program choices are best made under veterinarian-client-patient relationships.

Vaccines, including polyvalent products, should be selected to include only those antigens appropriate for the specific risk needs of the patient, thereby eliminating unnecessary immune system stimulation and thus lowering potential risks of adverse events. Veterinarians need to be aware of the risk of “endotoxin stacking” with the use of multiple Gram-negative vaccines.
Knowledge of immunology and vaccinology, including associated benefits and risks, and the pathobiology of infectious diseases, are necessary to implement an effective vaccination program. Consideration of exposure, susceptibility, potential severity of disease, vaccine efficacy and safety, related state/federal restrictions, the potential for public health concerns, and owner’s preferences are essential components of a customized vaccination program.

Those veterinarians with an established veterinarian-client-patient relationship are in the best position to make recommendations customized to the needs of the individual patient(s) and owner/client.

Revaccination recommendations should be designed to maintain clinically relevant immunity while minimizing adverse event potential.

Additional information, including vaccine-specific scientific data on minimum, average, and maximum duration of immunity is desired to craft optimal revaccination recommendations.

Veterinarians should create a core vaccine program, intended for use in the majority of animals in their practice area. Core vaccines are those that protect from diseases that are endemic to a region, those with potential public health significance, required by law, virulent/highly infectious, and/or those posing a risk of severe disease. Core vaccines have clearly demonstrated efficacy and safety, and thus exhibit a high enough level of patient benefit and low enough level of risk to justify their use in the majority of patients.

Veterinarians should create a non-core vaccine program, intended for a minority of animals in their practice area. Non-core vaccines are those that fit any of the following criteria:

- Targeted for diseases that are of limited risk in the region
- Protects against diseases that present less severe threats to infected patients
- Have a benefit/risk ratio that is too low to justify the use of the product in all circumstances
- Lacks adequate scientific information to fully evaluate the safety and/or efficacy of the product

**Multiple-dose Vials**

There are numerous advantages associated with the use of single dose vials. If multiple dose vials are used, care must be taken to thoroughly mix vaccine contents and administer the recommended dose according to the product label. Appropriate measures should be taken to minimize the potential for vaccine contamination with extraneous microbes or chemicals.
Regulatory Issues

The vaccine performance claims made by the manufacturers of USDA-licensed products have been substantiated by a variety of testing methods. Careful evaluation of labels and other information is necessary to compare and contrast between the available products. USDA-licensed products should be used if possible.

Current adverse event reporting systems need significant improvement in the capture, analysis and reporting of adverse events. Practitioner commitment to adverse event reporting, and timely access for practitioners to current analysis of adverse event data, are essential to providing optimal patient care.

There is potential legal liability for all medical procedures including vaccination.

Vaccine Licensing and Labeling

Biological agents are regulated by USDA, not FDA, and thus are not subject to FDA regulations that address extra label use. It is generally recommended to follow label instructions, however, in most cases veterinarians may legally use vaccines in a discretionary manner if medically justified and in compliance with State/Federal restrictions that apply.

USDA licensing at the full approval level provides a baseline standard for efficacy, safety, purity, and potency, but the clinical need (relevancy) or usefulness (applicability) of a product may not be completely assured by the licensing process. In some instances, the number of animals used in pre-license safety testing might be inadequate to identify rare but relevant safety concerns. In other instances, product efficacy and/or safety can be impacted by the use of concurrent therapeutic approaches that may not be cited as a contraindication or warning on the product label.

The USDA must approve labels for biological products. However, current labels frequently contain revaccination interval recommendations based on historical precedence and acceptance rather than specific duration of immunity data; consequently, some product labels may fail to adequately inform practitioners about optimal revaccination and long-term use of a product. Newer products and some older products with updated labels have revaccination recommendations based on data on file with USDA.

Labels on licensed vaccines make different claims and should be carefully studied when evaluating products. Claims may, for example, declare the product (a) prevents infection, (b) prevents disease, (c) aids in disease prevention, (d) aids in disease control (reduce disease severity, duration, and/or onset), or (e)
other (control of infectiousness through reduction of pathogen colonization and/or shedding in animals). Each of these claims represents a different level of performance outcome that might be important in selection of a specific vaccine.

USDA approved products, under conditional licensure, have demonstrated host-animal safety and a reasonable expectation of efficacy. Autogenous vaccine regulations do not require confirmation of 1) efficacy, 2) potency correlated to efficacy; or 3) host-animal safety to the USDA prior to product licensure and use.

**REVACCINATION INTERVAL**
*(Approved by the AVMA Executive Board in April 1999; revised March 2004 and November 2008)*

The AVMA encourages the USDA APHIS Center for Veterinary Biologics to ensure the scientific basis of vaccine label revaccination interval recommendations.

**ADVERSE EVENT REPORTING**
*(Approved by the AVMA Executive Board in March 2006; reaffirmed April 2011)*

Being committed to the continuing availability of medicinal products that are pure, safe, potent and efficacious for animals, the AVMA encourages continued development and strengthening of adverse event reporting systems. This includes continued collaboration with constituent professional organizations, industry organizations, government entities and other stakeholders.

**VACCINOVIGILANCE**
*(Approved by the AVMA Executive Board in November 1998; revised March 2004 and November 2008)*

The AVMA supports the monitoring of vaccine safety and efficacy via a publicly available central reporting system. The system should collect reports of all vaccine associated adverse events including any perceived failures in safety and/or efficacy. The reporting system should be user-friendly and readily available to facilitate adverse event reporting by veterinary practitioners.

The reports should follow a standardized, systematic template. Any compilation or interpretation of these reports should be provided in a form that is useful to biological firms and clinically relevant for veterinarians. Implementation of the
central reporting system needs to be a high priority for the USDA-APHIS Center for Veterinary Biologics and adequate funding must be provided. The need for vaccinovigilance is significant and urgent to ensure that animal health, public health and food safety are protected.

AMERICAN KENNEL CLUB
(Approved by the AVMA House of Delegates in July 1967; revised May 2003 and April 2008)

The AVMA invites the American Kennel Club to join in a periodic review of the health requirements of the American Kennel Club's "Rules Applying to Dog Shows," for the purpose of effecting such revisions as may be necessary to bring the vaccination and other health requirements into accord with good veterinary practice.

The AVMA recommends that minimum health requirements for attendance at any dog show should be required due to the fact that shows bring large numbers of animals together under one venue where contagious infectious diseases can be introduced and spread. Due diligence should be undertaken to prevent transmission of communicable and infectious diseases, in accordance with the Compendium of Veterinary Standard Precautions.

In many cases interstate travel brings animals great distances and from varying backgrounds thereby increasing the possibility of disease transmission.

Minimum health requirements for dogs attending shows should be:

A. Official Certificate of Veterinary Inspection for interstate travel

B. Vaccinations that are consistent with the AVMA's Principles of Vaccination, should be customized and established by the management of each show, on the recommendation(s) of their veterinarian(s), taking into consideration locale, current circumstances, and conditions

C. Freedom from internal/intestinal parasites, heartworm infection, and external parasites

D. Documentation that these requirements have been met
GUIDELINES FOR USE OF AUTOGENOUS BIOLOGICS
(Approved by the AVMA Executive Board in 1993; reaffirmed November 1997 and April 2000; revised March 2006 and November 2009)

Autogenous biologics (vaccines, bacterins, toxoids) are prepared from cultures of microorganisms which are inactivated and nontoxic and provide the practitioner or APHIS CVB approved non-veterinarian specialist with a unique opportunity for the control of certain infectious diseases. Autogenous biologics are restricted to use by or under the direction of a licensed veterinarian within a veterinarian-client-patient relationship or by an approved non-veterinarian specialist under certain situations. Their use requires the application of sound scientific principles and good veterinary practice in those situations where USDA-licensed, non-autogenous products are not available or there is evidence that licensed products are not effective. A thorough diagnostic work-up must be completed to provide the microorganism(s) for manufacture of the autogenous product.

Veterinarians are exempt from the licensing requirements of the Virus-Serum-Toxin Act for those biologics they produce within their practice and use under a veterinarian-client-patient relationship. Autogenous biologics produced by the veterinarian should be tested to assure sterility, inactivation, and safety. This approach should be used only when the practice is equipped and staffed to carry out the required production procedures properly. Otherwise, autogenous biologics must be prepared in a USDA-licensed facility.

For regulatory guidance on autogenous biologics - please view 9CFR Sections 113.113 and 101.2 as well as VS Memos 800.69 and 800.103 - these documents are available at the USDA Center for Veterinary Biologics website: www.aphis.usda.gov/vs/cvb/regsandguidance.htm

The following points are important excerpts of the regulation - please refer to the guidance documents for specific regulations as they relate to autogenous biologics. Furthermore, consult the USDA licensed biologics manufacturer producing the autogenous product for additional information.

A. Autogenous biologics are not tested for potency or efficacy under USDA regulations.

B. States may place further limitations on the distribution and/or use of biologics which must be observed.

C. Regulations permit the use of multiple organisms for the preparation of autogenous biologics. Autogenous biologics, as with all biologics, should not be mixed with any other product. The simultaneous administration of other products should be approached with caution.
D. The product may be used in adjacent or non-adjacent herds or flocks considered to be at risk provided that the licensee has fulfilled all requirements and has documentation of such on file before shipping the product for use in another herd or flock. Records and documents relating to product shipments should be maintained for inspection by APHIS.

E. Dating for autogenous products is regulated as follows:

1. Microorganisms isolated from animals in a herd may be used for production of autogenous biologics for a period of 15 months from the date of isolation, not to exceed 12 months from the date of harvest of the first serial of product produced from the microorganisms.

2. Extending the use of individual products up to 24 months will be permitted without requesting permission from APHIS CVB if all requirements for doing so have been met and are on file.

3. For use past 24 months, CVB will evaluate each request and make the decision based on established requirements.

F. Products produced by veterinarians for use in their own practices should bear labeling information which is adequate to assure safe and proper use of the product. At a minimum, the following information should be present.

1. Name, address, and telephone number of the veterinarian
2. Autogenous biologic, followed by the name of the microorganism(s) incorporated
3. Vaccination schedule, which includes dosage, route of administration, number, and frequency of injections
4. Expiration date and serial number
5. Storage conditions
6. Additional cautionary statements specified by the veterinarian.

Rabies
(Approved by the AVMA Executive Board in November 2008)

AVMA endorses the Compendium of Animal Rabies Prevention and Control developed by the National Association of State and Public Health Veterinarians. The full text of the compendium is available from the NASPHV or from the AVMA Scientific Activities Division.
As a guide for legislators and other government officials, the AVMA recommends use of the Model Rabies Ordinance which is published in the AVMA Directory. Copies are available from the AVMA Scientific Activities Division.

Model Rabies Control Ordinance

Section I – Definitions

For the purposes of this ordinance, the following definitions shall prevail:

A. Animal – any of the order Mammalia, all of which are capable of being infected with and transmitting rabies.
B. Cat – any domestic feline animal (Felis catus).
C. Dog – any domestic canine animal (Canis familiaris).
D. Bite or bitten – means that the skin has been penetrated by an animal’s teeth.
E. Isolation – confinement of an animal exposed or potentially exposed to rabies.
F. Non-bite Exposure – means that saliva from an animal has come in contact with an open wound or a mucous membrane.
G. Own – to keep, harbor, or have control, charge, or custody of an animal.
H. Owner – any person who keeps, harbors, or has charge or control of, or permits any animal to habitually be or remain on, or be lodged or fed within his or her house, yard, or premises. This term shall not apply to veterinarians or kennel operators who have temporary custody, for a period of less than 60 days, of animals owned by others.
I. Animal Shelter – a public facility that is maintained by a government entity, or a private facility providing contractual services to a government entity for the purpose of impounding or harboring animals.
J. Quarantine – the strict confinement of an animal in a manner which precludes direct contact with other animals not concurrently in quarantine or persons other than the owner or caretaker. The quarantine shall be conducted under an order issued by the Public Health Official or the Rabies Control Authority designating the specific place, manner, and provisions of the quarantine.
K. Rabies Control Authority – a government agency or persons who are legally authorized and responsible for enforcement of this ordinance.
L. Currently Vaccinated Against Rabies describes an animal that has received a primary rabies vaccine, or has received a booster vaccine, administered in accordance with the current Compendium of Animal Rabies Prevention and Control prepared and updated annually by that National Association of State Public Health Veterinarians. Rabies vaccination must be performed by or under the direct supervision of a veterinarian who is licensed or legally permitted to practice veterinary medicine in the state.

Section II – Rabies Vaccination Requirements

A. Initial Vaccination:
Effective_____________ in the (city, town, village, or county) of ________________, the owner of every dog, cat, or ferret 3 months of age or older shall have the animal vaccinated against rabies. Vaccination at a younger age should be in accordance with the labels of USDA licensed rabies vaccines. Unvaccinated dogs, cats, or ferrets more than 3 months of age, that are acquired or moved to into the (city, town, village, or county) must be vaccinated within 30 days of purchase or arrival, unless there is documented evidence of current vaccination.

B. Revaccination:
The owner of every dog, cat, or ferret shall have the animal revaccinated 12 months after initial vaccination. Thereafter, the interval between revaccinations should conform to the manufacturer’s product labeling.

Section III – Duties

A. Duties of Veterinarian
It shall be the duty of each veterinarian, when vaccinating any dog, cat, or ferret to complete a certificate of rabies vaccination (or generate a computer print out) for each dog, cat, or ferret that is vaccinated. The certificate shall include the following information:

1. Owner’s name, address, and telephone number
2. Description of the dog, cat, or ferret (species, breed, sex, markings, age, and name)
3. Date of vaccination
4. Date of vaccination expiration
5. Rabies vaccination tag number
6. Vaccine producer and product name
7. Manufacturer’s serial or lot number of vaccine
8. Veterinarian’s signature
9. Veterinarian’s address and license number
10. Microchip number, if applicable

The original certificate of rabies vaccination shall be provided to the owner. The veterinarian who administers the vaccination shall retain one copy, and make a third copy available to the Rabies Control Authority or Public Health Official as needed. All parties should retain the certificate for the duration of the vaccination plus one year. A durable metal or plastic, series numbered rabies tag issued by the Rabies Control Authority or the veterinarian who administers the vaccine shall be provided to the owner with instructions that it must be securely attached to the dog’s, cat’s, or ferret’s collar or harness.

B. Duties of Owner

The owner is responsible procure rabies vaccination for his or her dog, cat, or ferret as outlined above, and to secure a license. The owner is responsible to assure that his or her dog, cat, or ferret wears a collar or harness with identification and the approved license or rabies tag securely attached. The license or rabies tag shall be worn at all times unless specific exemptions are set forth in the local ordinance.

Section IV – Transient or Show Dogs, Cats, or Ferrets

Owners of dogs, cats, or ferrets who are temporarily visiting a specific rabies control jurisdiction with their dog(s), cat(s), or ferret(s) or who are exhibiting a dog, cat, or ferret in competition, must carry with them and be prepared, upon demand of a legal authority, to present a current certificate of rabies vaccination for each dog, cat, or ferret.

Section V – Management of Animals that Bite Humans

Anyone knowing of an animal bite to a human shall immediately report the bite to the Rabies Control Authority or the Public Health Official.

A. Vaccinated Dogs, Cats, or Ferrets

1. A healthy dog, cat, or ferret that is currently vaccinated against rabies and that bites a human will be examined by a licensed veterinarian, who will determine the animal’s health status. If no signs of illness compatible with rabies are detected, the animal will be quarantined under such conditions as are outlined in an official quarantine order issued by the Rabies Control Authority or Public Health Official and observed for a period of ten days from the date of the bite. Alternatively, at the discretion of the Rabies Control Authority or Public Health Official the animal may be humanely euthanized and tested for rabies at an approved laboratory.
Quarantined animals may be treated by a veterinarian, but rabies vaccine should not be administered to the animal until the quarantine period is complete. At the end of the quarantine period the dog, cat, or ferret will be reexamined by a veterinarian. The results of the veterinary examinations will be documented and communicated to the Rabies Control Authority or the Public Health Official.

2. If at the end of the quarantine period, the dog, cat, or ferret shows no signs of illness compatible with rabies, it may be released from quarantine with the approval of the Rabies Control Authority or Public Health Official.

3. If at any time during quarantine or upon examination, the dog or cat shows signs of illness compatible with rabies, the animal shall be humanely euthanized and tested for rabies in an approved laboratory at the discretion of the Rabies Control Authority or the Public Health Official after conferring with the examining veterinarian.

B. Dogs, cats, and Ferrets that are Not Currently Vaccinated Against Rabies

1. A dog, cat, or ferret that is not currently vaccinated against rabies, that bites or reportedly bites a human will be considered a rabies suspect and will be seized by the Rabies Control Authority and quarantined under such conditions as are outlined in the official quarantine order issued by the Rabies Control Authority or Public Health Official. The quarantine shall be conducted under the supervision of the veterinarian, for a period of not less than 10 days from the date of the bite. Alternatively, at the discretion of the Rabies Control Authority or the Public Health Official the animal may be humanely euthanized and tested for rabies in an approved laboratory. Quarantined animals may be treated by veterinarian, but rabies vaccine should not be administered until the quarantine period is complete.

2. The rabies suspect dog, cat, or ferret will be examined by a licensed veterinarian at the beginning and at the end of the quarantine period, to determine its health status. The results of the examination will be recorded and communicated to the Rabies Control Authority, the Public Health Official, and the owner.
3. If at any time during the quarantine period or upon examination, the dog, cat, or ferret shows signs of illness compatible with rabies, the Rabies Control Authority or Public Health Official will order the immediate humane euthanasia and rabies testing of the quarantined animal in an approved laboratory after conferring with the examining veterinarian.

4. If at the end of the quarantine period, the dog, cat, or ferret shows no signs of illnesses compatible with rabies, it may be released from quarantine with the approval of the Rabies Control Authority or the Public Health Official. Prior to its release, the dog, cat, or ferret will be vaccinated against rabies at the owner’s expense. Alternatively, the dog, cat, or ferret will be vaccinated within 72 hours of release. The owner will pay to the Rabies Vaccine Control Authority a prescribed rabies vaccination deposit that will be reimbursed upon the presentation of proof of rabies vaccination by a private veterinarian.

C. Other Animals

1. Animals, other than dogs, cats, or ferrets, that bite or reportedly bite a human will, at the discretion of the Public Health Official, be treated according to the circumstances of exposure, the species, and the presence of rabies in the area. The pathogenesis and length of incubation and virus shedding periods of rabies in those other animals is unknown.

2. The animal may at the discretion of the Public Health Official, be seized by the Rabies Control Authority and immediately euthanized for rabies testing in an approved laboratory. Reports of the laboratory test will be provided to the Rabies Control Authority, the Public Health Official, the bite victim and the submitting veterinarian.

Section VI – Animals that are Bitten by Potentially Exposed to Rabies or Suspect Rabid Animals

A. Dogs, Cats, or Ferrets Currently Vaccinated Against Rabies

1. A currently vaccinated dog, cat, or ferret that is bitten by, or otherwise potentially exposed to a rabid or suspect rabid animal will be revaccinated immediately and placed in isolation under observation for 45 days or euthanized.
2. At the end of the isolation period, the dog, cat, or ferret will be examined by a veterinarian who will report the results of the examination to the Rabies Control Authority or the Public Health Official.

3. If the examination determines that the dog, cat, or ferret is free of signs of illness compatible with rabies, it may be released from isolation with the approval of the Rabies Control Authority or the Public Health Official.

4. If at any point during the isolation period or upon examination, the dog, cat, or ferret shows signs of illness compatible with rabies, the Rabies Control Authority or the Public Health Official will order the immediate humane euthanasia and rabies testing in an approved laboratory of the animal after conferring with the examining veterinarian.

B. Dogs, Cats, or Ferrets that are Unvaccinated or Not Currently Vaccinated Against Rabies

1. A dog, cat, or ferret that is not currently vaccinated against rabies and is bitten by or otherwise potentially exposed to a rabid or suspect rabid animal shall be euthanized immediately.

2. If the owner is unwilling to consent to euthanasia, the animal shall be seized by the Rabies Control Authority and impounded at the owner’s expense for six months in strict isolation, under such conditions as are outlined in an official isolation order issued by the Rabies Control Authority. If the animal shows no signs of rabies at the end of five months, it will be vaccinated against rabies at that time.

3. At the end of the six-month impoundment, the dog, cat, or ferret will be examined by a licensed veterinarian who will report the results of the examination to the Rabies Control Authority or Public Health Official.

4. If the examination determines that the dog, cat, or ferret is free of signs of illness compatible with rabies, it may be released from impoundment with the approval of the Public Health Official.

5. If at any point during the impoundment period or upon examination, the dog, cat, or ferret show signs of illness compatible with rabies, the Rabies Control Authority or Public Health Official will order the immediate humane euthanasia and testing of the impounded animal after conferring with examining veterinarian.
C. Livestock

1. Currently vaccinated livestock bitten by or otherwise exposed to rabid or suspect rabid animal will be revaccinated immediately and isolated under observation for 45 days or be euthanized.

2. Unvaccinated livestock should be slaughtered immediately. If the owner is unwilling to have this done, the animal will be kept in strict isolation for six months under such conditions as are outlined in an official isolation order issued by the Rabies Control Authority.

D. Other Animals

Any animal, other than a dog, cat, ferret, or livestock that is bitten by or otherwise exposed to a rabid or suspect rabid animal should be euthanized immediately. Animals maintained in USDA-licensed research facilities or accredited zoological parks that are exposed or potentially exposed to rabies shall be evaluated on a case-by-case basis by the Rabies Control Authority or the Public Health Official.

E. Testing of Suspect Rabid Animals

If a suspect rabid animal is available for testing, an animal that was bitten by or otherwise potentially exposed to the suspect rabid animal will be isolated pending the rabies test result on the suspect animal. If the testing results are negative, the bitten or otherwise potentially exposed animal shall be released with the approval of the Rabies Control Authority or the Public Health Official.

Section VII – Impoundment of Animals found in violation of this code.

A. The Rabies Control Authority shall operate a shelter or shelters, or the Rabies Control Authority may enter into cooperative agreements with a licensed veterinarian or other organization for the establishment and operation of a quarantine facility.

B. Any animal that is found off the owner’s premises running at large or without a valid rabies vaccination tag shall be impounded. All impounded animals shall be given proper care and maintenance. Each impounded animal shall be kept and maintained at the shelter for a minimum of 5 days (120 hours), unless it is reclaimed earlier by the owner.

C. Notice of impoundment of all animals, including any significant identification marks, shall be posted at the shelter as public notification of impoundment.
D. An owner may reclaim a vaccinated animal that is impounded for lack of rabies vaccination tag by furnishing proof of rabies vaccination and paying all impoundment and licensing fees prior to release.

E. An owner may reclaim an unvaccinated animal during the period of impoundment by paying the prescribed shelter and vaccination fees of $_____. A rabies vaccination must be administered prior to or within 72 hours of release, arrangements will be made by the local government to reimburse the rabies vaccination fee to a veterinarian designated by the owner after receipt of proof of vaccination.

F. Any animal that is unclaimed at the end of 5 days becomes property of the Rabies Control Authority in accordance with applicable laws and regulations.

Section VIII – Penalties for Violation of Ordinance

Any owner who fails to comply with any of the provisions of this ordinance shall be guilty of an infraction and subject to a fine of not less than $_______ not more than $_______.

Section IX – Shelter Fees

Impoundment fees shall be paid by the owner.

Section X – Enforcement

It shall be the responsibility of the __________________ to administer this ordinance, and to promulgate the necessary rules and regulations for its implementation. Enforcement shall be the responsibility of ____________________.

Effective __________________ in the (city, town, county) of ______________ all regulations pertaining to rabies control (and licensing) will be enforced by the (local, county, or state) enforcement officers, or others with regulatory authority specified by the governing unit.

Explanatory Notes

Communities that require licensure of dogs or cats may insert the following section sections in the model ordinance:
Licensing

Effective (date) _____________ in the (city, town, village, or county) of _______________________ every dog or cats 4 months of age and older shall be licensed. On proof of rabies vaccination in accordance with Section II of this ordinance and upon application for licensure and payment of the required fee to the clerk (city, town, village, or county) of ________________, a license shall be issued.

All licenses will expire ________________________________, and each year thereafter.

Fees

The license fees shall be as follows:

   Male (sexually intact)
   Male (neutered)
   Female (sexually intact)
   Female (neutered)

NOTE: Rabies vaccinations may be recommended for animal other than dogs, cats, and ferrets for which a USDA licensed vaccine is available; however a current vaccination history may not eliminate the need for euthanasia and rabies testing if the animal bites a human.

HYBRIDS OF WILD AND DOMESTIC ANIMAL SPECIES

Canine Hybrids
(Approved by the AVMA Executive Board in November 1995; revised October 2003 and April 2008)

The AVMA recognizes that: a) wild canines crossbred with domestic animals (canine hybrids) are often maintained in captivity as companion animals, for breeding purposes, for research activities, and for exhibition; b) depending on the management and disposition of canine hybrids, they may constitute a significant hazard to human health, other animal species, the environment, or themselves; and c) there is incomplete evidence with regard to the amount of genetic diversity between some wild and domestic canines and the suitability of canine hybrids as companion animals.

The AVMA strongly opposes keeping as pets any hybrids of wild canines crossbred with domestic animals. The AVMA believes that all commercial traffic in these animals for such purposed should be prohibited.
Persons who own or are contemplating owning canine hybrids should be aware of the following:

1. Laws in their state or community that may prohibit canine hybrids or require a permit for their presence.

2. The existence of strong evidence from experts in animal behavior, animal control, animal welfare, and public health that canine hybrids can exhibit unpredictable behavior and pose a significant threat of severe attacks on humans.

3. Public health officials may require euthanasia of canine hybrids after they bite a person or are exposed to a rabid or potentially rabid animal, regardless of their rabies vaccine status, because presently there is no USDA approved rabies vaccine licensed for canine hybrids and incomplete data exists on the pathogenesis of rabies in these animals.

4. The need for special housing, including secure fencing to prevent escape and to prevent direct contact with humans and other animals.

5. Owners or keepers of canine hybrids may be at increased risk for liability.

6. The importance of establishing a good relationship with a veterinarian who has some knowledge of canine hybrids and is willing to provide appropriate health care through treatment and preventive medicine.

Veterinarians should be aware of all of the above so that they can appropriately counsel their clients. In addition, each veterinarian should clarify the position of his or her liability insurance carrier to determine if protection will be available if the veterinarian accepts canine hybrids as patients.

Recognizing that some states allow canine hybrids to be owned, the AVMA encourages the development and licensure of drugs and biologicals that can be used on such animals.

**POSITION OF THE AVMA'S PROFESSIONAL LIABILITY INSURANCE TRUST ON VACCINATION OF "WOLF HYBRIDS"**

(Approved by the AVMA Professional Liability Insurance Trust in March 1992; reviewed October 2003; reaffirmed November 2005; revised December 2010)

The vaccinating of wolf hybrids has become a topic of concern for veterinarians as a result of their increasing popularity as companion animals. The Trust office is frequently asked whether the AVMA liability insurance policy will provide coverage if a veterinarian vaccinates a wolf-hybrid. The answer hinges on the state or local regulations regarding the harboring of these animals as pets.
The Trust office advises veterinarians to check with state authorities to determine the hybrid's legal status as a pet. If the state or local government has no law against keeping a wolf-hybrid as a pet, the Trust would consider the vaccination of this animal as a discretionary use of a biologic by the veterinarian, an act which the policy does not specifically exclude.

Prior to any such vaccination, however, the owner must be informed that the vaccine is not approved for use in wolf-hybrids and that there have been no studies to prove the efficacy of the vaccine in these animals. Make a notation of this discussion in the record and have the owner initial it. This allows the owner to make an informed decision regarding the use of the vaccine.

If the veterinarian practices in a state or jurisdiction where it is illegal to keep these animals as pets, any treatment of a wolf-hybrid may be considered an illegal act. Illegal acts are excluded under the AVMA professional liability policy.

RESTRICTION OF VETERINARY BIOLOGICS TO VETERINARIANS’ USE
(Approved by the AVMA Executive Board in November 1988; reviewed March 2004; reaffirmed November 2008)

The AVMA supports USDA efforts to restrict all veterinary biologics used in disease control programs, those with high incidence of reactions, and those with public health significance, to use by or under the direction of a licensed veterinarian.

BRUCELLOSIS
(Approved by the AVMA Executive Board in April 2008)

The American Veterinary Medical Association supports the sustained commitment of all responsible state and federal agencies to continue appropriate and timely actions to eliminate brucellosis in susceptible domestic and wild animal populations. Continued support for disease control efforts, including the detection, control, and sustainable funding for surveillance activities toward the ultimate elimination of brucellosis should remain a national priority.

The veterinary profession has been an integral part of the eradication of brucellosis from the livestock population of the United States. Mission support activities, including improved detection systems, improved vaccines, vaccine delivery systems, and exploration of improved disease management strategies are also a high priority as follows:
Brucellosis Research Priorities

- Development of vaccines and vaccine development systems appropriate for target populations: The AVMA supports, as a high priority the rapid development and use of a safe and effective vaccine against brucellosis to promote domestic animal health, public health, wildlife health, and to conserve wildlife populations and their genetic diversity.

- Development of improved diagnostic tests, validated for the target species, with improved performance (sensitivity and specificity)

- Conduct studies to further clarify the epizootiology of brucellosis, including disease pathogenesis and transmission parameters. These factors, once determined, may be exploited for control and elimination of the disease in susceptible populations.

Population disease management:

- Greater Yellowstone Interagency Brucellosis: The AVMA supports the goal, mission and objectives of the Greater Yellowstone Interagency Brucellosis Committee. The AVMA urges State and Federal agencies to work together to develop a disease management plan to control and eliminate brucellosis from bison and elk populations in the Greater Yellowstone Area (GYA).

- Surveillance: The Association urges USDA to maintain emphasis on comprehensive nationwide surveillance during the last phases of eradication and following eradication.

- Feral Swine: The AVMA supports the Cooperative State-Federal Swine Brucellosis Eradication Program and related research. The AVMA encourages continued research on the elimination of brucellosis from feral swine populations to support the eradication of brucellosis from the United States.

JOHNE’S DISEASE
(Approved by the AVMA Executive Board in May 2003; revised November 2007)

Johne’s is a disease of significant economic importance to cattle and small ruminants. The AVMA will disseminate information and encourage veterinary practitioners to become familiar with ongoing efforts to control and eradicate
Johne’s disease. The National Academies of Science (NAS) report, Diagnosis and Control of Johne’s Disease, indicates that currently available tests and diagnosis management practices are sufficient to control the disease. The AVMA encourages the USDA to review the implementation of the U.S. Voluntary Johne’s Disease Herd Status Program for Cattle and to evaluate state programs for their equivalency to the Recommended Standards. In addition, the AVMA supports research in the development of improved diagnostic tests, management practices, vaccines, and their roles in control efforts in herds and flocks. To that end the AVMA supports active pursuit of maximum and sustained funding to effectively support the USDA Johne’s National Control Program.

USE OF BIOTECHNOLOGY IN DEVELOPMENT OF DRUGS AND VACCINES
(Approved by the AVMA Executive Board in November 1986; reaffirmed November 1989; reviewed March 2004; reaffirmed April 2008; revised April 2010)

The AVMA supports and encourages the ethical use of biotechnology in veterinary medicine to develop new or improved biologic and therapeutic agents. Such use may include but is not limited to:

- Internationally harmonized research, development, production, licensure/approval, sale, distribution, and use of safe and effective vaccines, pharmaceuticals, and other therapeutic products used in animal health.
- Science-based regulatory policies and procedures supporting pre and post-approval product evaluations.
- Development of innovative, useful (sensitive, specific, and robust) diagnostic and surveillance tools.

DEVELOPMENT OF EMERGING DISEASE AGENT BIOLOGICS
(Approved by the AVMA Executive Board in November 2008)

Although the AVMA recognizes the need to protect intellectual property, the failure of researchers to share isolates of emerging agents with other investigators has the potential of adversely impacting animal health and well being by delaying disease research and the development of diagnostic modalities and preventive measures such as vaccines. The AVMA encourages cooperation between researchers, biotechnology and animal health industries, and regulatory agencies for the promotion of animal health.
ANIMAL DISEASE CONTROL PROGRAM SUPERVISION
(Approved by the AVMA House of Delegates in July 1975; reviewed 1998 and 2003; reaffirmed April 2008)

All animal disease control and eradication programs should be under the direction and supervision of veterinarians.