

DISEASE INFORMATION FACT SHEET

Rabies



This Disease Information Fact Sheet accompanies the 2013 AAFF Feline Vaccination Advisory Panel Report published in the *Journal of Feline Medicine and Surgery* (2013), Volume 15, pp 785–808.

Disease facts

Rabies virus is shed in the saliva of rabid animals and is most commonly transmitted by bites. No feline variant of rabies virus exists; all cases of rabies in cats are a result of spillover from other reservoir species, including wildlife and dogs. The typical incubation period in cats is 2 months (range 2 weeks to longer than 1 year), followed by the development of clinical signs. The furious form of rabies is most common in cats, with death coming within 10 days of clinical signs. There are no ante-mortem diagnostic tests for rabies. Although cat-to-human transmission of rabies is rare, cat bite injuries are a common reason for post-exposure prophylaxis.¹ In regions where canine rabies has been controlled, such as the USA and Canada, cats may be the most commonly affected domestic species.²

Vaccine types

Two types of parenteral rabies vaccines are available for cats. Inactivated whole virus vaccines with adjuvant are available from multiple suppliers and provide durations of immunity of 1 or 3 years and are labeled for use as early as 12 weeks/3 months of age. A recombinant canarypox virus-vectored vaccine without additional adjuvant provides immunity for 1 year and is labeled for use as early as 12 weeks of age.

The 2013 Report of the Feline Vaccination Advisory Panel of the American Association of Feline Practitioners (AAFP) provides practical recommendations to help clinicians select appropriate vaccination schedules for their feline patients based on risk assessment. The recommendations rely on published data as much as possible, as well as consensus of a multidisciplinary panel of experts in immunology, infectious disease, internal medicine and clinical practice. The Report is endorsed by the International Society of Feline Medicine (ISFM).

Onset and duration of immunity

In most locations where feline rabies vaccination is required, cats are generally considered to be immunized against rabies at 28 days following administration of a single, initial dose. A rabies antibody titer cannot be used as an index of immunity in cats or dogs. Currently, feline rabies vaccines are available with labels for 1 and 3 year durations of immunity. In locations that require vaccination of cats against rabies, revaccination with a single dose of rabies vaccine is typically required within 1 year following administration of the initial dose, regardless of the cat's age at the time of initial vaccination and regardless of whether the vaccine



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used was licensed as a 1 year vaccine or a 3 year vaccine. A rapid anamnestic response is expected in cats receiving a booster inoculation. Following revaccination, cats are considered to be immediately immunized.³ Cats that are overdue for a booster vaccine (either a 1 year or 3 year vaccine) should be revaccinated with a single dose of vaccine as soon as possible. If a cat is revaccinated later than recommended, local statutes may dictate whether the cat is considered to be properly vaccinated and protected from infection or not.

Vaccine safety

The absence of live rabies virus in currently used vaccines precludes any concerns regarding reversion to virulence. Cats with a history of feline injection-site sarcoma believed to be associated with a rabies vaccine should not be revaccinated. Local rabies ordinance or statutes may apply.

References

1 Frymus T, Addie D, Belak S, Boucraut-Baralon C, Egberink H, Gruffydd-Jones T, et al. **Feline rabies. ABCD guidelines on prevention and management.** *J Feline Med Surg* 2009; 11: 585–593.

Other vaccine considerations

Rabies vaccines have not been tested for efficacy in non-domestic species. In some jurisdictions, non-domestic felids and their hybrids may not be considered adequately vaccinated against rabies.³ Requirements for rabies vaccination, serological testing and quarantine for international travel vary widely depending on the origin and destination countries. Cat owners and their veterinarians should allow ample time to become familiar, and comply, with regulations for transporting cats.

Advisory Panel Recommendations

Vaccination against rabies is considered core wherever rabies infection is endemic in any species or vaccination is mandated by law. Kittens should be first vaccinated at 12 weeks/3 months of age. Regardless of the age at first vaccination, a booster should be administered 1 year later. Booster products should not be used more frequently than the labeled duration of immunity.


- 2 Blanton JD, Palmer D, Dyer J and Rupprecht CE. **Rabies surveillance in the United States during 2010.** *J Am Vet Med Assoc* 2011; 239: 773–783.
- 3 Brown CM, Conti L, Ettestad P, Leslie MJ, Sorhage FE and Sun B. **Compendium of Animal Rabies Prevention and Control, 2011.** *J Am Vet Med Assoc* 2011; 239: 609–617.

**DISEASE INFORMATION
FACT SHEETS**

- ❖ Feline herpesvirus 1
- ❖ Feline calicivirus
- ❖ Feline panleukopenia
- ❖ Rabies
- ❖ Feline leukemia virus
- ❖ Feline immunodeficiency virus
- ❖ Feline infectious peritonitis
- ❖ *Chlamydophila felis*
- ❖ *Bordetella bronchiseptica*

SUPPLEMENTARY FILES

Fact Sheets accompanying the 2013 AAEP Feline Vaccination Advisory Panel Report are available, together with the Pet Owner Guide included in Appendix 2, at <http://jfms.com>
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**GENERAL INFORMATION
FACT SHEET**

- ❖ The immune response to vaccination: a brief review

**PET OWNER GUIDE
(APPENDIX 2, pp 807–808)**

- ❖ Vaccinations for Your Cat