

throughout the United States; veterinarians should comply with the legal requirements of their area.

Feline leukemia virus infection—Feline leukemia virus (FeLV) infects domestic cats throughout the world. Transmission is through transfer of virus in the saliva or nasal secretions resulting from prolonged intimate contact (eg, mutual grooming), biting, or sharing of food and water utensils. The virus may also be transmitted by transfusion of blood from an infected cat, in utero, or through the milk.²⁹ Exposure to virus persisting in the environment, on fomites, or in aerosolized secretions is not an efficient means of viral transmission. Clinical signs of FeLV infection are primarily related to neoplasia, anemia, and diseases resulting from immunosuppression.

Kittens are the most susceptible to infection; resistance increases with maturity. Experimental data demonstrate that kittens younger than 16 weeks of age are most susceptible to infection, with cats older than this being relatively resistant.³⁰ Cats at greatest risk include outdoor cats (free-roaming pets, stray cats, and feral cats). Also at risk are cats residing in open, multiple-cat environments, cats living with FeLV-infected cats, and cats residing in households with unknown FeLV status.

The decision to vaccinate an individual cat against FeLV infection should be based on the cat's age and its risk of exposure. *Vaccination against FeLV is recommended for cats at risk of exposure (ie, cats not restricted to a closed, FeLV-negative, indoor environment), especially those younger than 4 months of age. Vaccination is not recommended for cats with minimal to no risk of exposure, especially those older than 4 months of age.* The ability of a particular vaccine brand to induce an immune response sufficient to resist persistent viremia varies from study to study.³¹ *Because protection is not induced in all vaccinates, preventing exposure to infected cats remains the single best way to prevent FeLV infection.* Vaccination against FeLV does not diminish the importance of testing cats to identify those that are viremic. It is of critical importance that viremic cats not be in contact with other cats, especially those younger than 4 months of age. Therefore, the FeLV infection status of all cats should be determined.³² Adverse events associated with vaccination against FeLV include local swelling or pain, transient lethargy or fever, and post-vaccination granuloma formation. Although vaccine-associated sarcomas have been reported to develop in association with administration of other vaccines, current data suggests they are more frequently associated with administration of FeLV vaccines and adjuvanted rabies virus vaccines.²⁶ If vaccination is deemed appropriate, annual revaccination is recommended. Cats should be tested for FeLV infection before initial vaccination and when there is a possibility that they have been exposed to FeLV since they were vaccinated. The ELISA is the preferred screening test; the IFA is the preferred confirmatory test.³² Individuals confirmed to be infected with FeLV need not receive FeLV vaccines but they should be segregated from uninfected cats.

Chlamydiosis—*Chlamydia psittaci* is a bacterial pathogen of the conjunctiva and respiratory tract of cats. Transmission is through direct cat-to-cat contact; fomite transmission is less likely because the organism is unstable in the environment. Serous conjunctivitis, which may initially affect only 1 eye, is the most common clinical sign. Sneezing or nasal discharge may develop, but if so, are usually mild. Clinical signs are usually evident 5 to 10 days after infection and resolve with appropriate antimicrobial treatment.³³ Isolation rates have been reported to range from approximately 1% for cats without signs of respiratory tract disease to approximately 14% for cats with concurrent upper respiratory tract disease.³⁴ Highest rates of infection are reported for cats between 5 weeks and 9 months of age.³⁵ Immunity conferred by *C. psittaci* vaccines is similar to that conferred by FHV-1 and FCV vaccines, in that vaccinates are protected from severe clinical disease but not from infection.² The frequency of adverse systemic events associated with *C. psittaci* vaccines is higher than that associated with other commonly used vaccines; reactions include lethargy, depression, anorexia, lameness, and fever 7 to 21 days after vaccination.³⁶ *Because signs of disease associated with C. psittaci infection are comparatively mild and respond favorably to treatment and because adverse events associated with use of C. psittaci vaccines are of greater concern than adverse events associated with use of many other products, routine vaccination against C. psittaci infection is not recommended.* Vaccination may be considered for cats in multiple-cat environments where infections associated with clinical disease have been confirmed. If vaccination is deemed appropriate, annual revaccination is recommended.

Feline infectious peritonitis—Feline coronaviruses (FCoV) vary considerably in pathogenic potential and have historically been grouped into 2 biotypes: feline enteric coronaviruses (FECV) that typically cause subclinical to mild enteric infections, and feline infectious peritonitis viruses (FIPV) that cause feline infectious peritonitis (FIP). Currently, FIPV are believed to be generated as mutant variants in FECV-infected cats.^{37,38} FCoV are widespread in feline populations worldwide, with seropositivity rates highest in crowded multiple-cat environments.³⁹ Transmission of the virus is mainly via the fecal-oral route. In environments in which FCoV infection is endemic (eg, most multiple-cat environments), 35 to 70% of cats will be shedding FCoV in the stool at any given time.^{40,41} Most infected cats remain healthy, although a few—usually between 1 and 5%—ultimately develop FIP. Affected cats rarely survive regardless of treatment.³⁹ Kittens are most often affected with FIP, but the disease reportedly can develop in cats of all ages. A genetic predisposition has been suggested, with higher disease incidence in certain lines.^{39,42}

Considerable controversy surrounds the ability of the currently available FIP vaccine (Primucell-FIP, Pfizer Animal Health) to prevent disease. Some studies demonstrate protection from disease^{43,44}; others show little benefit from vaccination.^{45,46} Antibody-dependent enhancement