

## PROSPECTIVE EVALUATION OF FELINE LEUKEMIA VIRUS STATUS RELATIVE TO FIRST ANTIGEN SCREENING TEST RESULT

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**Background:** Approximately 3% of cats are infected with feline leukemia virus (FeLV) based on antigen tests. However, evidence is lacking regarding the frequency and kinetics of sero-reversion during the development of regressive infections.

**Aims:** This study evaluated the proportion of cats testing positive on their first point-of-care screening test and remaining positive across multiple test modalities for 6 months.

**Methods:** Cats were screened on intake to a shelter using anticoagulated whole blood (SNAP® FIV/FeLV Combo Test, IDEXX Laboratories, Inc.). Collection of monthly whole blood, plasma and serum samples began once cats weighed at least two pounds. Samples were tested by SNAP Combo, a quantitative p27 antigen ELISA, a semi-quantitative real-time PCR for proviral DNA, and FeLV IFA. Cats were classified as progressively infected if consistently positive test results were obtained across all modalities during the study period.

**Results:** A total of 130 FeLV positive and 130 negative cats were enrolled based on test results at intake. Half of the cats under 2 months of age that tested antigen-positive at intake were progressively infected compared to 78% of antigen-positive cats who were tested when over 2 months of age. Two antigen-negative cats (1.5%) had evidence of proviral DNA by PCR.

**Discussion/Conclusions:** A single point in time test may not be sufficient to determine the FeLV disease status of a cat. Practical follow-up tests are needed to help determine disease status with the understanding that FeLV disease states may be better represented as a continuum instead of discrete states.

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