THE PROTECTIVE RATE OF THE FELINE IMMUNODEFICIENCY VIRUS VACCINE: AN AUSTRALIAN FIELD STUDY
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ME Westman1, R Malik2, E Hall1, M Harris3, JM Norris1
1 Faculty of Veterinary Science, The University of Sydney, NSW
2 Centre for Continuing Veterinary Education, The University of Sydney, NSW
3 Centre for Virus Research, The University of Glasgow, Scotland, United Kingdom

Background: Despite controversy concerning the efficacy of Fel-O-Vax FIV®, millions of vaccine doses have been sold worldwide, with no unequivocal ‘vaccine breakthroughs’ reported following in-field use in Australia or elsewhere.

Aims: The aim of this study was to determine the ‘protective rate’ (effectiveness) for the Fel-O-Vax FIV® vaccine in the field in Australia.

Methods: A retrospective case-control field study was undertaken involving client-owned cats recruited from veterinary clinics in Australia. FIV-vaccinated cats (89 cases) and FIV-unvaccinated cats (212 controls) satisfied stringent inclusion criteria, which for cases included FIV antibody-testing prior to primary FIV vaccination (unless < 6 months-of-age at first vaccination) and annual on-time FIV re-vaccination for at least three consecutive years. FIV status was determined using a combination of antibody testing (using point-of-care test kits) and nucleic acid amplification, plus virus isolation in cases where results were discordant and in all suspected FIV-vaccinated/FIV-infected cats (‘vaccine breakthroughs’).

Results: Five vaccine breakthroughs (5/89; 6%), and 25 FIV-infected age/sex/postcode-matched controls (25/212; 12%) were identified, giving a vaccine protective rate of 56% (95% CI 20 to 84). The difference in FIV prevalence between the two groups was not significant (P = 0.14).

Conclusions: The nominal protective rate was 56% in the first field trial conducted anywhere in the world for Fel-O-Vax FIV®. This study did not demonstrate a significant reduction in the risk of client-owned cats vaccinated with Fel-O-Vax FIV® becoming infected with FIV compared to unvaccinated controls, although there was a trend for some protection in a study which was admittedly underpowered. Owners wanting to prevent their cat acquiring FIV infection should consider measures in addition to vaccination, such as cat curfews, ‘modular pet parks’ or keeping their cat(s) exclusively indoors. Testing for FIV infection (vaccine breakthrough) may be prudent before annual FIV re-vaccination and for ‘sick’ FIV-vaccinated cats, using a Witness or Anigen Rapid antibody test kit (Westman et al. 2015).