The Vet Education Webinar Series 2015

“Feline Vaccination!”

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GLOBAL FELINE VACCINATION GUIDELINES

Guidelines for feline vaccination are produced by the American Association of Feline Practitioners [1], the European Advisory Board on Cat Diseases [2] and the WSAVA VGG [3]. The fundamental principle of these guidelines, as encapsulated by the VGG, is that ‘we should aim to vaccinate every animal with core vaccines and to vaccinate each individual less frequently by only giving non-core vaccines that are necessary for that animal’.

The WSAVA guidelines suggest that we should aim to vaccinate MORE animals. This relates to the phenomenon of ‘herd immunity’. Herd immunity suggests that where at least 75% of a herd of animals is vaccinated, it is difficult for an infectious disease outbreak to occur. The ‘herd’ for a small animal practitioner is the population of cats living within his or her practice area – and our aim should be to have as many of these animals vaccinated as possible, in order to reduce the chances of disease outbreak in the herd.

In order to apply the principles of vaccination guidelines, it is firstly necessary to understand the definitions of ‘core’ and ‘non-core’ vaccines. CORE vaccines are those that all animals should receive to protect them against diseases of global significance or where legislation may dictate [i.e. canine rabies]. The use of NON-CORE vaccines is dictated by geographical location, lifestyle and exposure risk. Some vaccines are NOT RECOMMENDED because there is little scientific justification for their use.

Core vaccines for the cat are those that protect against feline parvovirus (FPV), feline calicivirus (FCV) and feline herpesvirus-1 (FHV). In rabies-endemic countries, rabies vaccination is also considered core for cats, even if not dictated by legislation. Non-core vaccines are those for which use is dictated by geographical location, lifestyle and exposure risk. Non-core vaccines for the cat are those that protect against feline leukaemia virus (FeLV), Chlamydia felis and Bordetella bronchiseptica. Vaccines against feline immunodeficiency virus (FIV) and feline infectious peritonitis (FIP) are currently not recommended for use.

WSAVA guidelines provide generic advice to practitioners, but it is impossible to ensure that the guidelines are tailored to best fit the local situation in each of the 78 WSAVA member countries. The VGG encourages national associations to adapt and modify the guidelines for local use where appropriate. This process might involve altering the classification of a vaccine. For example, in the UK, FeLV vaccine is often considered core for the cat and administered routinely to kittens.

Core Vaccination of Kittens

Core vaccination of kittens (FPV, FCV, FHV) begins at 8-9 weeks of age, with a second vaccine given 3-4 weeks later and a third vaccine given between 14-16 weeks of age. The 12 month booster is also an integral part of the kitten programme. Increasing evidence suggests that maternally-derived antibody (MDA) may persist for up to 20 weeks in some kittens [4]. Current advice would be that the third kitten vaccine be given at 16 weeks of age or older. Where rabies is endemic, kittens should receive 1 dose of vaccine at 12 weeks of age, but the VGG suggests that in a high-risk situation, a second dose of vaccine may be given 2 - 4 weeks later.

Core Vaccination of Adult Cats

Some FPV vaccines now carry a licensed duration of immunity (DOI) of 3 years; however, vaccines against FCV, FHV and non-core products all have a 1-year DOI. Rabies vaccines (including one
non-adjuvanted product) also have a 3-year DOI in many countries. Selecting products with extended DOI reduces the frequency of administration of that component. Guidelines may still advise triennial revaccination with products carrying a 1-year licensed DOI. For the cat, there are field serological data that show persistent seropositivity for 4 or more years post core MLV vaccination [5] and one experimental challenge study that shows immunity for a minimum period of 7.5 years following vaccination of kittens with killed adjuvanted trivalent vaccine [6].

WSAVA guidelines therefore recommend that adult cats receive MLV core vaccines (FPV, FCV and FHV) no more frequently than every 3 years. The VGG also recognizes that based on individual risk assessment, some practitioners may wish to deliver annual FCV/FHV vaccination. Using product ranges that split out FPV from the respiratory components, such a protocol is entirely feasible. Rabies vaccination of adult cats may now be performed triennially using products with an appropriate licensed duration of immunity (DOI) of 3 years.

Non-core Vaccination
Non-core vaccines should be selected for the individual cat based on assessment of that particular animal’s risk of exposure to the disease and assessment of the benefits of vaccination to that pet versus the risk of adverse reaction. Decision making for non-core vaccines would be facilitated by having available good quality data and disease distribution maps related to small animal infectious diseases. Unfortunately, with the exception of rabies in the USA and Europe, such distribution maps are not widely available. Some national schemes have been developed by industry or academic groups which allow practitioners to input cases of particular infectious diseases into a database that presents the information as disease distribution maps. Additionally, consideration must be given to the vaccine requirements of the individual animal, based on assessment of their lifestyle (e.g. indoor versus outdoor, travel and boarding frequency and location, solitary or multicat household). Vaccination is now an example of ‘individualised medicine’ and is no longer as simple as having a practice ‘vaccination protocol’.

For example, where non-core FeLV vaccination is selected for kittens, an initial dose is given at 8 weeks of age, with a second 3-4 weeks later, followed by a 12 month booster. The VGG recommends that adult cats are revaccinated against FeLV no more frequently than every 3 years.

Minimize Adjuvanted Vaccines
Although it is now recognized that the feline injection site sarcoma (FISS) may be associated with a wide range of injectable or topical products it is clear that adjuvanted FeLV and rabies vaccines are one such risk factor in the transformation of local chronic inflammation to neoplasia. A number of strategies have been proposed to minimise the surgical consequences of any FISS that might develop in a cat. The WSAVA currently advises vaccination into the skin of the lateral abdomen, while the AAFP continues to advise vaccination into the distal hindlimb for rabies and FeLV. A recent study has shown the efficacy of vaccination for FPV when vaccine is administered into the distal tail, although there remain concerns about this procedure [7].

The Annual Health Check
All aspects of vaccination should fall under an annual health check programme that reduces the emphasis on vaccination as a reason for visiting the practice and considers holistically the overall health and wellbeing of the pet. A discussion about which vaccines (or serological tests) might be offered in any one year is just one part of the annual health check. The importance of vaccination can be reinforced by using the VGG fact sheets. Vaccination (or serology) should be appropriately invoiced so emphasis is placed on the professional consultation.
References


