

New Zealand Veterinary Association Policy – July 2017

Vaccine use in New Zealand Cats and Dogs

Companion Animal Veterinarians branch of the NZVA

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1. Introduction:

We acknowledge the work of the WSAVA vaccination guidelines group in producing the [WSAVA Guidelines for the Vaccination of Dogs and Cats \(2015\)](#) on which this policy is based.

1.1 Types of Vaccines

1.1.1 Infectious

These vaccines contain organisms that are attenuated to reduce virulence such as a modified-live virus (MLV). They consistently induce robust cell-mediated and antibody-mediated (humoral) immunity after parental administration. Some are also formulated to be administered directly to mucosal surfaces (intranasal or oral vaccines). When administered to an animal with no maternally-derived antibody (MDA), protection will generally be acquired with a single dose.

1.1.2 Non-Infectious

Also known as killed or inactivated vaccines. They generally require an adjuvant to increase their potency and even in an adult animal require multiple doses to induce protection. They are administered parentally and may be less likely to induce an immune response. They generally have a shorter duration of immunity (DOI) than infectious vaccines.

1.2 Product Datasheet Recommendations

There are instances where the current scientific evidence supports use of a vaccine that differs from the manufacturer's recommendations. A veterinarian may use a vaccine according to current scientific thinking rather than following the vaccine datasheet by obtaining informed consent from the owner for this deviation from manufacturer's recommendations ('off-label use'). Veterinarians should also be aware that company technical representatives will continue to advise that the veterinarian must adhere to the recommendations given in their datasheets, as they are obliged to do since these documents have been through the licensing procedure.

1.2.1 Duration of Immunity Claims

The minimum duration of immunity (DOI) stated on the datasheet may not reflect the true DOI of a vaccine and this can be a cause of confusion. For most core vaccines, the true DOI is likely to be considerably longer than the minimum DOI, perhaps even lifelong, for most vaccine recipients.

1.2.2 Early Finish Claims

Some canine vaccines may have “early finish” claims. Certain CPV-2 vaccines with higher viral titres and/or with more immunogenic isolates will immunize quite a few weeks earlier than other standard CPV-2 vaccines. These should be chosen if you are presented with a younger puppy, in which the vaccine administered will be its only chance of being immunised.

There is however, no combination core product currently available that will immunise an acceptable percentage of puppies (particularly not against canine parvo virus) when the last dose is given at 10 weeks of age.

Regardless of the type of vaccine chosen and the number of doses given, it is recommended that the last dose should be administered at 16 weeks of age or older, in line with WSAVA vaccination guidelines.

1.3 Current Issues in Small Animal Vaccinology

1.3.1 Herd Immunity

A high level of vaccinated animals in a population reduces not only the population of susceptible animals but also the prevalence of a disease. Veterinarians should aim to vaccinate a high percentage of cats and dogs with the core vaccines.

1.3.2 Vaccine Load

Veterinarians should aim to reduce the vaccine load on individual animals. This reduces the risk of adverse reactions, and the financial burden on clients. The goal of reducing vaccine load has seen the development of vaccines being categorised as ‘core’ and ‘non-core’.

1.3.3 Early Socialisation of Puppies

Dogs that develop unsocial behaviours due to poor socialisation during the critical socialisation phase of 3-12 weeks have an increased risk of being relinquished due to behavioural problems later in life. It is recommended that all puppies receive careful socialisation before they are fully vaccinated to mitigate this risk.

1.3.4 Shelter Situations

It is acknowledged that limited financial support may constrain the extent of vaccination in populations of animals housed in shelters. The minimum vaccination protocol in this situation would be a single administration of core vaccines at or before the time of admission to the shelter. Veterinarians are urged to consult the full WSAVA 2015 guidelines document for further information on managing vaccination in the shelter situation.

1.3.5 Boarding Facility Requirements

Following vaccination, immunity develops anywhere from 1-14 days depending on the animal, the vaccine and the disease. Boarding facility stand down periods after vaccination may be based on the maximum time to immunity of any vaccine and

differ significantly from veterinary recommendations. Where possible, be aware of your local facilities' policies to reduce 'issues' for owners wishing to board their pets shortly after vaccination.

If it is thought that a boarding facility's vaccination stand-down policy or requirements for entry are not correct, then look to reach out to them, help them to understand the science behind your recommendations, and seek to formulate a policy with which all are comfortable.

2. General Vaccine Recommendations

2.1 The Vaccination Consultation

Vaccines administered by a veterinarian must involve a consultation and thorough examination. Where possible only healthy animals should be vaccinated.

Irrespective of vaccine requirements, an annual health check should be encouraged to provide for comprehensive individual care.

2.1.1 Risk:Benefit Analysis

The administration of non-core vaccinations should be based on an individual risk:benefit analysis. This should take into consideration what the owner has told you about housing, indoor-outdoor access, travel, life-style, boarding frequency and exposure to other animals.

Potential risks to consider:

- likelihood of the vaccination causing an adverse reaction
- that an unnecessary medical procedure may be performed
- likelihood of the animal becoming infected with the organism based on scientific knowledge about the prevalence of disease in your area
- the potential of developing clinical disease following infection

Potential benefits to consider:

- protection for the animal from infection, if its lifestyle or geographical location means it is likely to be exposed to that infectious agent
- reduction in the severity of clinical signs should that animal become infected
- contribution to herd immunity amongst the population by administration of a vaccine

2.1.2 Adverse Reactions

Veterinarians must be aware of potential adverse events from vaccination, their detection and treatment. The risk of adverse events must be discussed with the pet owner prior to administration. Clients should be advised to monitor their pets

including vaccination site(s) and to contact the practitioner in the event of any abnormalities. Any adverse reactions must be reported to the ACVM Group of the Ministry for Primary Industries and/or to the vaccine manufacturer (or its agent).

2.1.3 Immunosuppressive Therapies

Immunosuppressive glucocorticoid treatment prior to or concurrently with vaccination has not been shown to have a significant suppressive effect on antibody production in response to vaccines. However, revaccination is recommended several weeks after glucocorticoid therapy has ended, especially when treatment occurred during administration of the initial series of core vaccines.

Animals on immunosuppressive medications (other than glucocorticoids), should not be vaccinated while receiving treatment and for a further two weeks after treatment is finished.

2.1.4 Pregnant Animals

Vaccination in pregnant animals should be avoided unless the vaccine has a specific label claim for use in pregnancy. An exception would be a disease outbreak in a shelter situation if a pregnant animal had never been vaccinated.

2.1.5 Anaesthetised animals

It is best not to vaccinate an anaesthetised animal due to the risks of inducing a hypersensitivity reaction and causing vomiting. Anaesthetic agents may also be immunomodulatory.

2.2 Vaccine Handling

Vaccinations should be stored in the middle compartment of the fridge so they remain in the range of 2-8 degrees Celsius at all times, unless otherwise specified by the manufacturer. Do not store in the door or near the freezer compartments. (See NZVA Policy on Storage of Veterinary Medicines, September 2015.)

A full vaccine dose must be used for each individual animal regardless of the animal's size. The volume of vaccine needed to produce immunity is not related to body weight.

Always follow the vaccine manufacturer's guidelines when preparing vaccines. After reconstitution of a MLV vaccine, use within 2 hours.

If a vaccine is spilled, clean the vaccine off the animal's fur with alcohol swabs. Use a viricidal agent on any surfaces. This is particularly important for cats who can develop disease from the FHV and FCV-1 vaccine viruses via mucosal contact.

2.3 Vaccine Record Keeping

The veterinarian should offer the current owner (breeder, SPCA or other agency if the animal is intended for sale or re-homing) a clear certificate or record of each

vaccine administered and the animal to which it was administered. The record must include:

- the name and address of the practice
- the name and qualifications of the veterinarian
- the name of the current owner
- accurate identification of the animal being vaccinated, including description of species, breed, colour, age, sex and microchip number if applicable.
- the date of vaccination
- the vaccine type and trade name, batch number and expiry date
- the recommended date(s) for re-vaccination
- signature of the administering veterinarian – to be done ONLY after all the above information has been completed

Every animal that is vaccinated must be adequately identified as an individual in the clinic's records. The veterinarian must keep a permanent record of the above in the animal's medical record. Include any owner discussions regarding the use of the vaccine.

Identifying individual animals when presented with a litter of young puppies or kittens can be challenging. Recording the sex, weight and any identifying markings may be all that is possible in these circumstances, unless they are microchipped or already named.

If the original certificate must be replaced, a copy or replacement certificate may be issued but must be clearly marked as "COPY" or "DUPLICATE" or "REPLACEMENT". If the original veterinarian is unable to sign such a replacement certificate, then the words "according to our records" and a signature of a verifying veterinarian will be sufficient for certification.

2.4 Veterinary Operating Instructions

The recent introduction of Veterinary Operating Instructions (VOI) now allows for the administration of vaccines to companion animals by veterinary nurses and lay people under the specific directives outlined in the VOI. It is recommended that veterinarians enabling vaccination under VOI familiarise themselves with the [Veterinary Council of New Zealand Code of Professional Conduct](#), ACVM Notice: [Requirements for Authorising Veterinarians 28 August 2015](#) and MPI's Guidance Document: [Veterinary Operating Instructions 28 August 2015](#)

3. Canine Vaccination Recommendations:

3.1 Core Vaccines

Core vaccinations are recommended for all dogs.

3.1.1 Canine Distemper Virus (CDV)

There have not been any publicised cases of distemper in New Zealand since the late 1980's. Practitioners are encouraged to informally publicise cases of distemper, or canine infectious hepatitis, by notifying CAV of any cases.

3.1.2 Canine Adenovirus (CAV; types 1 and 2)

3.1.3 Canine Parvovirus Type 2 (CPV-2) and its Variants

3.2 Non-Core Vaccines:

Only recommended if indicated following an individual risk:benefit analysis.

3.2.1 Bordetella bronchiseptica

Indicated for dogs that socialise with other dogs outside their immediate pack, e.g. those that use boarding kennels, doggy daycare, groomers, or attend agility or obedience classes. As infectious canine cough is a multifactorial disease and it is possible for the disease to occur in vaccinated dogs, although it is often of a shorter duration (Ellis, 2015).

Available in both parental and intranasal formulations.

A protocol that combines both parental and intranasal routes, may actually provide a broader and longer lasting immunity than vaccinating at only one site. (Ellis, 2015). Parenteral vaccination provides protection in the lung, but little or no immunity in the upper respiratory tract, while intranasal vaccination will engender good secretory IgA and local cell mediated immunity and non-specific immunity (e.g. type-I interferons), but will not always provide immunity in the lung (FAQ#6 [WSAVA Guidelines for the Vaccination of Dogs and Cats \(2015\)](#)).

Ensure the vaccine is given via the correct administration route, as intranasal injections given parentally can cause severe local reactions and fatal liver failure.

Intranasal vaccinations

Sneezing, with loss of some of the vaccine, is commonly observed after the use of intranasal products. These vaccines have been designed to allow for partial loss of the product and so it should not be necessary to revaccinate, unless it is obvious that none or very little of the product was delivered successfully.

3.2.2 Leptospirosis (*Leptospira interrogans* serovar Copenhageni)

Disease in dogs has been seen following infection with serovars Copenhageni, Hardjobovis, Pomona, and Ballum. Nationwide seroprevalance is estimated to be about 10%, 4%, 1% and 0.8% for each respectively.

According to our current state of knowledge, we cannot determine the risk of exposure based on geographic location, or breed, although working dog breeds appear to be more at risk of exposure to Hardjo-bovis than urban pet breeds (Harland, et al., 2013).

Local experience with clinical cases of leptospirosis is the best guide as to the need for vaccination in different regions and populations. Activities that may increase risks for leptospirosis infection include contact with wildlife, swimming, hunting or roaming on farmland.

The currently available vaccines in New Zealand only contain Icterohaemorrhagiae (which on DNA analysis is nearly indistinguishable from the Copenhageni serovar). This means that we cannot be confident of protection against disease following vaccination.

3.2.3 Parainfluenza Virus

Infectious canine cough is a multifactorial disease and it is possible for the disease to occur in vaccinated dogs, although it is often of a shorter duration.

The canine parainfluenza virus component of the parental multivalent vaccine that includes CPV-2, CAV, and CDV does not have the same DOI as the other components, requiring an annual booster if ongoing protection is deemed necessary.

3.2.4 Rabies

Only required for animals intending to be exported to countries that require this as a condition of export.

3.3 Serological Testing

Serological testing for CPV-2 and CDV can be used to:

- determine protective immunity in the puppy
- inform revaccination intervals in adult dogs
- improve management of infectious disease outbreaks in shelters
- determine protection in lieu of vaccination after an adverse event

3.3.1 Serological Testing in Puppies

Some owners may wish to confirm that a puppy is protected after the course of primary vaccinations have been completed. Collect the sample at least 4 weeks after the final vaccination when the puppy is 20 weeks or older. This will ensure that MDA will not interfere and allows time for seroconversion to occur. A seropositive puppy

would not require a 6-12-month booster, instead they would receive their next vaccine (or serology test) after 3 years.

Seronegative puppies should be revaccinated and retested. If the pup again tests negative, it should be considered a non-responder that is possibly incapable of developing protective immunity.

3.3.2 Serological Testing in Adult Dogs

Serological testing offers an alternative to routine core revaccination at three yearly intervals. A positive test indicates that revaccination is not required. A dog that produces a negative serological test, may still be capable of a rapid immune response to a challenge (Mouzin, Lorenzen, Haworth, & King, 2004) however, as they can't be differentiated from those that are truly no longer immune, revaccination of those producing a negative test is recommended.

In the absence of firm evidence, WSAVA advice is to perform serological testing every 3 years, but in dogs older than 10 years, this should be done annually.

3.3.3 Limitations with Titre Testing

The premise that a dog with a positive titre will remain positive for the next three years is unproven. With testing intervals yet to be established, caution must be exercised as to assuring owners that a dog will remain protected for three years following a positive titre test.

If the dog will be entering a boarding facility, the owner should check if a titre test will be accepted and any requirements as to the timing of the test before entry.

3.4 Socialisation

If we delay socialising puppies until they are fully vaccinated, they will miss the critical 3-12 week window when puppies are most accepting of new experiences.

We'll run indoor puppy classes where all the puppies have been started on a vaccination course are considered low risk (Stepita, Bain, & Kass, 2013) and should be encouraged. The benefits of exposing puppies to children, other types of animals, cyclists and other people and novel situations in carefully controlled circumstances should be carefully weighed against the potential of contracting an infectious disease.

Risks of contracting an infectious disease are much lower in puppies who have received a vaccination at or just over 12 weeks of age, even though they are yet to receive their final vaccination at 16 weeks. The information given to owners on how to best socialise puppies in this group should reflect this lower risk.

4. Feline Vaccination Recommendations

4.1 Feline Core Vaccines:

The core vaccines for the cat are:

4.1.1 Feline Panleukopenia (FPV)

4.1.2 Feline Herpesvirus-1 (FHV-1)

4.1.3 Feline Calicivirus (FCV)

The protection afforded by the FCV and FHV-1 vaccines are inferior to the immunity provided by FPV vaccine. Feline core respiratory disease vaccines should not be expected to give the same robust protection, nor the DOI, that is seen with canine core vaccines.

It is possible for herpes and calici virus infections and disease to occur in vaccinated adult cats (Schorr-Evans, Poland, Johnson, & Pedersen, 2003). There is no FHV-1 vaccine that can protect against infection from a virulent virus. Infection may lead to the virulent virus becoming latent, with the possibility of reactivation during periods of severe stress (Maes, 2012). The reactivated virus may cause clinical signs in the vaccinated animal or the virus can be shed to susceptible animals and cause disease in them.

4.2 Feline Non-Core vaccines:

Selection is based on an individual risk:benefit analysis.

4.2.1 Feline Immunodeficiency Virus (FIV)

Determine the FIV status of the cat prior to vaccination, and only vaccinate those that are negative.

When weighing the risks and benefits of FIV vaccination consider:

- The dominant FIV subtypes in New Zealand are C and A, whereas the Fel-O-Vax FIV (inactivated) vaccine contains isolates from the A and D subtypes. No assumption of protection can be made against the C subtypes present in New Zealand, or even the efficacy of the vaccine against the A subtypes found in New Zealand.
- The possibility of euthanasia of a healthy FIV vaccinated cat if it ends up in a shelter and is found to be positive on an FIV ELISA test.
- Risks posed by adjuvanted vaccines that must be given repeatedly in a species that is susceptible to injection site sarcomas.
- The disease prevalence in New Zealand – estimated as between 2-12%.

- The current uncertainty regarding whether FIV infection actually causes significant health problems to an infected cat.
- The cat's lifestyle – indoor vs indoor/outdoor.
- The absence of any other options to manage FIV infection.
- Contact with any other known FIV positive cats

To reduce the risk of owned cats being mistakenly euthanised in shelters, identify cats who receive an FIV vaccine with a microchip registered to the cat's owner on the New Zealand Companion Animal Register (NZCAR).

For a full discussion on FIV vaccination, testing and management refer to the CAV guidelines on FIV available on the CAV website.

4.2.2 Chlamydia

Most appropriately used as part of a control regime for animals in multicat environments where infections associated with clinical disease have been confirmed.

4.2.3 Feline Leukaemia Virus (FeLV)

Commercial FeLV vaccinations were discontinued in New Zealand in March 2016.

4.2.4 Rabies

See section 3.2.4

As the majority of rabies vaccinations contain an adjuvant, choose the injection site with consideration that adjuvanted vaccinations are more commonly associated with feline injection site sarcoma than non-adjuvanted.

4.3 Sites of Vaccination for Cats

Vaccines (of any type) are one class of injectable product that has been linked to the pathogenesis of the feline injection site sarcoma (FISS) with attention particularly focused on the FeLV and rabies vaccines (Kass, Barnes, Jr., & Spangler, 1993). This remains a confusing and contentious area. Individual practitioners must decide for themselves which approach is practical for their own practice setting in consideration of the following principles:

- The risk of FISS is outweighed by the benefit of protective immunity conferred by vaccines.
- Non-adjuvanted vaccines should be administered to cats wherever possible. FIV, FeLV and most rabies vaccines contain adjuvants.
- Vaccines (particularly adjuvanted products) should not be administered intramuscularly.
- The choice of injection site should be based on a balance between the ease of surgical resection of any FISS that might develop and acceptable safety for

the vaccinator (i.e. to avoid accidental self-injection during difficult restraint of the animal).

- Vaccines should be administered into a different site on each occasion. This site should be recorded in the patient's record. The sites should be 'rotated' on each occasion. Alternatively, a practice might develop a group policy that all feline vaccinations are administered to a specific site during one calendar year and this site is then rotated during the following year.
- All cases of suspected FISS should be reported as an adverse reaction to the ACVM Group of the New Zealand Food Safety Authority and/or to the vaccine manufacturer (or its agent).

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6. Appendix A: Canine Vaccination Schedules

6.1 Puppy Immunisation Schedules

6.1.1 Core Vaccines (CDV, CAV types 1 and 2, CPV-2 and its variants)
Initial core vaccination starting at 6-8 weeks, then every 2-4 weeks with a final vaccination given at or after 16 weeks of age.

The number of puppy primary core vaccinations is determined by the age at which vaccination is started and the selected interval between vaccinations.

A two-week interval would generally only be selected for areas that experience high infectious disease pressure, or if a short time frame is required to complete the vaccinations

After the (16 week or older) vaccination, a follow-up “booster” vaccine is recommended between 6-12 months of age. The main purpose of this booster is to ensure a protective immune response develops in the small but unknown number of dogs that have failed to respond to the primary series. As such, the timing of this booster is left for individuals to determine based on their risk assessments.

6.1.2 Non-Core Vaccinations (Bordetella bronchiseptica, Leptospirosis, Parainfluenza virus, Rabies)
As per manufacturer’s datasheets.

If the second vaccine of an initial series is not given within 6 weeks of the first vaccination, the regime should start again (see FAQ#65 of the [WSAVA Guidelines for Vaccination of Dogs and Cats 2015](#)).

6.1.2.1 Rabies

For animals that require rabies vaccination as an export requirement, a single vaccination is needed after 12 weeks of age. Antibody titres reach protective levels generally after 4 weeks. All initial rabies vaccinations must then be followed with a booster in 12 months.

6.2 Initial Vaccination of a Dog Older than 16 Weeks

6.2.1 Core Vaccines (CDV, CAV types 1 and 2, CPV-2 and its variants)

A single dose of MLV core vaccine will engender a protective immune response in a dog which is able to respond to vaccination (Mouzin, Lorenzen, Haworth, & King, 2004). Repeat vaccinations should be given at three-yearly intervals.

6.2.2 Non-Core Vaccines (Bordetella bronchiseptica, Leptospirosis, Parainfluenza virus, Rabies)

As for section 6.1.2 above.

6.3 Revaccination of Adult Dogs

6.3.1 Core Vaccines (CDV, CAV types 1 and 2, CPV-2 and its variants)

Following the 6-12 month “booster”, repeat vaccinations are given at 3-yearly intervals. Serological testing is an option to routine revaccination (see section 3.3).

6.3.2 Non-Core Vaccines (Bordetella bronchiseptica, Leptospirosis, Parainfluenza virus, Rabies)

Annual revaccination is required for animals considered to be at ongoing risk to the disease, with the exception of the rabies vaccine.

Dogs that have not returned for annual boosters for non-core vaccinations within 8 weeks of the due date may need to restart the primary series. In these situations, contact the technical representative of the vaccine product for advice.

6.3.2.1 Rabies

All initial rabies vaccinations must be followed with a booster in 12 months.

The revaccination interval following the 12-month booster can then be extended to three years if the product has a 3-year DOI label claim. Be aware that some national or local legislations may require boosters be given annually regardless of the vaccination used.

7. Appendix B: Feline Vaccination Schedules

7.1 Kitten Immunisation Schedules

7.1.1 Core Vaccines (FPV, FHV-1, FCV)

Initial core vaccination starting at 6-8 weeks, then every 2-4 weeks until 16 weeks of age (or older).

The number of kitten primary core vaccinations will be determined by the age at which vaccination is started and the selected interval between vaccinations. A 2-week interval would generally only be selected for areas that experience high infectious disease pressure, or if a short time frame is required to complete the vaccinations.

After the (16 week or older) vaccination, a follow-up “booster” vaccine is recommended between 6-12 months of age. The main purpose of this “booster” is to ensure a protective immune response develops in any cats that have failed to respond to the primary series. As such, the timing of this booster is left to individuals to determine based on their risk assessments.

7.1.2 Non-Core Vaccines (Chlamydia, FIV, Rabies)
As per manufacturer’s datasheets.

If the second vaccine of an initial series is not given within 6 weeks of the first vaccination, the regime should start again (see FAQ#65 of the [WSAVA Guidelines for the vaccination of dogs and cats 2015](#)).

7.1.2.1 FIV

While it is best practice to determine the negative serological status of a cat prior to FIV vaccination, for a young healthy kitten (<16 weeks), that hasn’t been outdoors and has no history to suggest it should be at risk, it is pragmatic and not unreasonable to make an assumption that it will be FIV negative.

Cats that are vaccinated for FIV should also be microchipped and registered with the NZCAR to avoid being confused with an unowned FIV infected cats should they end up in a shelter.

7.1.2.2 Rabies

As per dogs in section 6.1.2.1 above.

7.2 Initial Vaccination of a Cat Older than 16 Weeks

7.2.1 Core Vaccines (FPV, FHV-1, FCV)

While an adopted adult cat or kitten over 16 weeks will develop immunity to the FPV component after only one vaccination, the FCV and FHV-1 components require two doses (2-4 weeks apart) to confer immunity (Day, Horzinek, Schultz, & Squires, 2016).

7.2.2 Non-Core Vaccines (Chlamydia, FIV, Rabies)
As per section 7.1.2 above.

7.2.2.1 FIV

Determine the negative serological status before administering an FIV vaccine.

Cats that are vaccinated for FIV should also be microchipped and registered with the NZCAR to avoid being confused with FIV infected cats should they end up in a shelter.

7.2.2.2 Rabies

As per dogs in section 6.1.2.1 above.

7.3 Revaccination of Adult Cats

7.3.1 Core Vaccines (FPV, FHV-1, FCV)

Cats that have responded to vaccination with MLV core vaccines maintain a solid immunity against FPV for many years in the absence of any repeat vaccination. Immunity against the FCV and FHV-1 components is however only partial (Scott & Geissinger, 1999).

The revaccination interval chosen for an adult cat should be based on an individual risk assessment.

The recommendation for a low-risk cat, (one that is a solitary indoor cat that does not board in a cattery), is for triennial revaccination of FPV, FCV and FHV-1.

An annual revaccination schedule for FCV and FHV-1 should be considered for a higher-risk cat (one that regularly visits a boarding cattery or lives in a multicat, indoor-outdoor household).

As vaccines should not be given needlessly, it is best practice to use a bivalent (FCV/FHV-1) vaccine for the following two annual vaccinations after administration of a trivalent (FPV/FCV/FHV-1) vaccination. There is however, no documented risks associated with use of a trivalent vaccine on an annual basis.

To take advantage that the most robust immunity is conferred by these vaccines within the 3-month period after vaccination (Gaskell, Dawson, Radford, & Thiry, 2007), attempt to time the administration of annual vaccines shortly before the cat is due to make an annual visit to the cattery.

7.3.2 Non-Core Vaccinations (Chlamydia, FIV, Rabies)

Annual revaccination is required for cats considered to be at ongoing risk to the disease with the exception of the rabies vaccine.

Cats that have not returned for annual boosters within 8 weeks of the due date may need to restart the primary series. In these situations, contact the technical representative of the vaccine product for advice.

7.3.2.1 Rabies

As per dogs in section 6.3.2.1