

DOG VACCINATION GUIDELINES – JULY 2019

EXTRACTED FROM: “DOG AND CAT VACCINATION GUIDELINES FOR SOUTH AFRICA (2019) – EVIDENCE”

Compiled by

Kurt de Cramer

BVSc MMedVet (Gyn) PhD

Basic vaccination programme for dogs in South Africa

Antigen	Initial puppy vaccination	Initial adult vaccination	Re-vaccination recommendation
CPV, CDV, and CAV-2 ¹ Core	6 weeks 9 weeks 12 weeks Thereafter veterinarians may suggest to vaccinate again at 16 weeks and perform serological testing to confirm protective titres thereafter	Two doses 3 weeks apart	Booster at 6 months of age to 1 year of age and thereafter every third year (use of vaccines with a licensed DOI of three years is encouraged)
Rabies Core	12 weeks 4 months of age to 12 months of age	Single dose	Every 3 years (use of vaccines that have a three-year duration of immunity claim on the manufacturer’s data sheet is encouraged). When pet is likely to travel, recommendation should be annually.

¹ CPV: Canine Parvo Virus; CDV: Canine Distemper Virus; CAV-2: Canine Adenovirus type 2 (CAV-2) is related to the hepatitis virus, canine adenovirus type 1 (CAV-1). CAV-2 is used in vaccines to provide protection against canine infectious hepatitis. CAV-2 is also one of the causes of infectious tracheobronchitis, also known as canine cough.

Parainfluenza Non-core but highly recommended	6 weeks 9 weeks 12 weeks Thereafter veterinarians may suggest to vaccinate again at 16 weeks and perform serological testing to confirm protective titres thereafter	Two doses 3 weeks apart	Revaccination (booster) at either 6 months or 1 year of age, then annually for all pets at risk
<i>Bordetella bronchiseptica</i> Non-core but highly recommended	As per data sheet from manufacturer	Two doses 3 weeks apart if booster is required or single intranasal dose	Annually for all pets at risk
Leptospirosis Non core	Initial dose at 8 weeks of age or older. A second dose is given 3 weeks later	Two doses 3 weeks apart	Annually for all pets at risk. Local relevance remains questionable and further research is required. Travel regulations may require vaccination against Leptospirosis.
Canine corona virus	Not recommended		

Vaccination programme for dog breeding kennels

Initial puppy vaccination

4 weeks CPV or CPV & CDV combo is optional for high risk breeding kennels (only use vaccine approved for use at 4 weeks of age as per manufacturer)

6 weeks CPV, CDV, CAV-2 (PI & *Bordetella bronchiseptica* is highly recommended in breeding establishments)

9 weeks CPV, CDV, CAV-2 (PI & *Bordetella bronchiseptica* is highly recommended in breeding establishments) also include Leptospirosis if at risk or pets are likely to travel)

12 weeks CPV, CDV, and CAV-2 and Rabies also include Leptospirosis if at risk or pets are likely to travel

Vaccination beyond 12 weeks of age may be necessary in isolated cases and veterinarians may suggest to perform serological testing to confirm protective titres in individual puppies or to monitor vaccination efficacy in the kennel.

26 weeks CPV, CDV, CAV-2, PI and Rabies (include Leptospirosis if at risk or pets are likely to travel and *Bordetella bronchiseptica* according to manufacturer's data sheet)

*** In exceptional circumstances revaccination every 2 weeks may be of value starting at 4 weeks and ending at 12-16 weeks of age. (high infectious disease**

pressure in some breeding kennels)

Vaccination of adult breeding dogs

Bitches Annual vaccination is recommended for CPV, CDV, CAV-2, PI, Leptospirosis, *Bordetella bronchiseptica* and Rabies (Potential puppy travel requirements and ability to transfer immunoglobulins following each pregnancy are considerations in support of annual core vaccination and protection of puppies against devastating respiratory disease outbreak in breeding kennels)

First Herpes vaccination during early oestrous but not later than 10 days after mating and again at around day 30 – 40 of gestation (after confirmation of pregnancy) but not later than 10 days prior to whelp, is highly recommended during each pregnancy

Studs Same as bitches but no herpes vaccination is recommended

Canine corona virus not recommended

References

- Bagshaw C.; Isdell A. E.; Thiruvaiyaru D. S.; Brisbin Jr I. L.; Sanchez S., 2014: Molecular detection of canine parvovirus in flies (Diptera) at open and closed canine facilities in the eastern United States. *Preventive veterinary medicine*, *114* 276-284.
- Betsch C.; Böhm R.; Korn L.; Holtmann C., 2017: On the benefits of explaining herd immunity in vaccine advocacy. *Nature human behaviour*, *1* 0056.
- Böhm M.; Herrtage M.; Thompson H.; Weir A.; Hasted A.; Maxwell N., 2004: Serum antibody titres to canine parvovirus, adenovirus and distemper virus in dogs in the UK which had not been vaccinated for at least three years. *Veterinary Record*, *154* 457-463.
- Chastant-Maillard S.; Freyburger L.; Marcheteau E.; Thoumire S.; Ravier J. F.; Reynaud K., 2012: Timing of the intestinal barrier closure in puppies. *Reproduction in Domestic Animals*, *47* 190-193.
- Day M., 2010: Ageing, immunosenescence and inflammageing in the dog and cat. *Journal of Comparative Pathology*, *142* S60-S69.
- Day M.; Horzinek M.; Schultz R.; Squires R., 2016: WSAVA Guidelines for the vaccination of dogs and cats. *Journal of Small Animal Practice*, *57* E1-E45.
- Day M.; Karkare U.; Schultz R.; Squires R.; Tsujimoto H., 2015: Recommendations on vaccination for Asian small animal practitioners: a report of the WSAVA Vaccination Guidelines Group. *Journal of Small Animal Practice*, *56* 77-95.
- Day M. J., 2007: Immune System Development in the Dog and Cat. *Journal of Comparative Pathology*, *137*.
- De Cramer K. G. M.; Stylianides E.; van Vuuren M., 2011: Efficacy of vaccination at 4 and 6 weeks in the control of canine parvovirus. *Veterinary Microbiology*, *149* 126-132.
- Decaro N.; Campolo M.; Desario C.; Elia G.; Martella V.; Lorusso E.; Buonavoglia C., 2005: Maternally-derived antibodies in pups and protection from canine parvovirus infection. *Biologicals*, *33* 261-267.
- Decaro N.; Crescenzo G.; Desario C.; Cavalli A.; Losurdo M.; Colaianni M. L.; Ventrella G.; Rizzi S.; Aulicino S.; Lucente M. S., 2014: Long-term viremia and fecal shedding in pups after modified-live canine parvovirus vaccination. *Vaccine*, *32* 3850-3853.
- Dodds W., 2018: Vaccine Issues and the World Small Animal Veterinary Association (WSAVA) Guidelines (2015-2017). *Israel Journal of Veterinary Medicine*, *73* 2.
- Ford R. B.; Larson L. J.; McClure K. D.; Schultz R. D.; Welborn L. V., 2017: 2017 AAHA canine vaccination guidelines. *Journal of the American Animal Hospital Association*, *53* 243-251.
- Goddard A.; Leisewitz A. L., 2010: Canine parvovirus. *Veterinary Clinics: Small Animal Practice*, *40* 1041-1053.
- Gooding G.; Robinson W., 1982: Maternal antibody, vaccination and reproductive failure in dogs with parvovirus infection. *Australian veterinary journal*, *59* 170-174.
- Gray A. P., G ; Lin, F, 2003: Nobivac® DHPPi offers protection against infection with CDV and CPV within 7 days of vaccination. *Proceedings 46th BSAVA Annual Congress*. Birmingham, UK, p. 559.
- Hoskins J., 1997: Performance of a new generation canine parvovirus vaccine in rottweiler puppies. *Canine practice* *22* 3.
- Kennedy L. J.; Lunt M.; Barnes A.; McElhinney L.; Fooks A. R.; Baxter D. N.; Ollier W. E., 2007: Factors influencing the antibody response of dogs vaccinated against rabies. *Vaccine*, *25* 8500-8507.
- Lee C.; Whetten K.; Omer S.; Pan W.; Salmon D., 2016: Hurdles to herd immunity: Distrust of government and vaccine refusal in the US, 2002–2003. *Vaccine*, *34* 3972-3978.
- Macartney L.; Thompson H.; McCandlish I.; Cornwell H., 1988: Canine parvovirus: interaction between passive immunity and virulent challenge. *The Veterinary record*, *122* 573-576.
- Mansfield K.; Sayers R.; Fooks A.; Burr P.; Snodgrass D., 2004: Factors affecting the serological response of dogs and cats to rabies vaccination. *Veterinary Record*, *154* 423-426.
- Miyamoto T.; TAURA Y.; UNE S.; YOSHITAKE M.; NAKAMA S.; WATANABE S., 1995: Immunological responses after vaccination pre-and post-surgery in dogs. *Journal of Veterinary Medical Science*, *57* 29-32.
- Poulet H., 2007: Alternative early life vaccination programs for companion animals. *Journal of comparative pathology*, *137* S67-S71.

- Waner T.; Naveh A.; Wudovsky I.; Carmichael L. E., 1996: Assessment of maternal antibody decay and response to canine parvovirus vaccination using a clinic-based enzyme-linked immunosorbent assay. *Journal of veterinary diagnostic investigation*, 8 427-432.
- Wherry E. J.; Teichgräber V.; Becker T. C.; Masopust D.; Kaech S. M.; Antia R.; Von Andrian U. H.; Ahmed R., 2003: Lineage relationship and protective immunity of memory CD8 T cell subsets. *Nature immunology*, 4 225.