

# Should I vaccinate this pet?

This is a BSAVA Information Sheet on factors to consider before agreeing to vaccinate small animals during the Covid-19 pandemic. This guidance should be read in conjunction with RCVS guidance and the accompanying flowcharts and documentation. It is effective from 14th April 2020 for the next 2 weeks and on a rolling 2 week basis thereafter. All the advice is intended as a guide to assist BSAVA members but it is not a replacement for professional judgement. The responsibility for clinical decisions resides solely with the attending veterinarian.

#### General advice for veterinary staff

For further details please see information from RCVS, BVA and BSAVA websites.

Remember:

- 1. Adhere to government advice relevant to your country or local area to reduce your level of interaction with others wherever possible.
- 2. Consider if a journey is necessary by you, staff or clients and where it is, minimise use of public transport.
- 3. Wash your hands as recommended: encourage your colleagues and clients to do likewise.
- 4. Though some veterinary professionals are required to be physically at their work place, nobody should be working normally it is not 'business as usual'.
- 5. Respect that individuals who are shielding themselves or in self-isolation at home will need extra support.
- 6. Maintaining social distancing is a priority between staff, between staff and clients, and between clients.
- 7. Where you cannot maintain social distancing, e.g. for animal restraint, then protect everyone as far as possible.
- 8. Use appropriate levels of PPE but equally try to conserve PPE and other resources that may be used by our colleagues in the medical world. RCVS Knowledge has provided **guidance** on the use of PPE.
- 9. Ensure you obtain informed owner consent before any procedures. See BSAVA Guidance on '**Obtaining Consent Remotely**'.
- 10. See BSAVA's guidance on **Remote Consultation** and when assessing a case, and in particular when doing so remotely, make careful clinical notes to support your assessment.

For details of the UK government's advice on how to maintain good hygiene and social distancing while working, please see the **BSAVA COVID-19** webpages and the section '**Veterinary Advice for Practising Vets**'. Veterinary staff may also find it useful to point clients to '**Advice for Pet Owners**'.

## **Introduction to this Information Sheet**

During the initial three weeks (until 13th April) of the UK government's 'lockdown' during the Covid-19 pandemic, routine pet vaccination was temporarily suspended or drastically reduced. However, as the situation may well persist for further weeks, it is important to realise that continued suspension of all vaccinations may increasingly compromise animal health and welfare. It may also be counter-productive if, as a result, there were infectious disease outbreaks leading to more small animal hospital admissions (and associated human-to-human contact). Equally, the act of vaccinating may increase the risks of human-to-human contact and coronavirus transmission. Therefore, each individual vaccination requires a risk-benefit analysis, led by a veterinary surgeon. It can be difficult when comparing the benefits of animal health with the risk to human health. Some clients may be very anxious to protect their pet as an important family member. These tables and risk pyramids show which animals BSAVA consider, on the basis of scientific evidence and specialist-led opinion, should be prioritised; however, the final decision rests with the individual veterinary surgeon's application of their clinical judgement with their knowledge of the individual circumstances of the pet. The final responsibility for clinical policy rests with the senior veterinary surgeon at each practice premises.

BSAVA recommend all puppies and kittens are isolated indoors until they have received their vaccines. We consider the first annual booster as being more important than subsequent annual boosters. For rabbits and ferrets their accommodation should be such that any normal social groups are maintained but contact with other groups is reduced as far as possible.

For advice on microchipping and neutering see other BSAVA resources.

## Decision making in small animal vaccination





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VACCINATION TYPE	VACCINE USED	FACTORS TO CONSIDER IN INDIVIDUAL RISK ASSESSMENT
Primary (puppy)	Distemper virus Leptospirosis Parvovirus Adenovirus	Local incidence of parvo (see SAVSNET website), leptospirosis (local knowledge) etc. If vaccinating one puppy, then also vaccinate all the puppies that live in the household or on the premises. Suggested timing of 1st vaccination if puppy is to go outside: 1st dose not before 8 weeks, preferably after 10 weeks; 2nd vaccination 4 weeks later. Consult individual manufacturers' data sheets for details. If puppy can be kept indoors (e.g. toy breed), then risk is considerably reduced; however, consider risks of adverse effects on socialisation. Access to garden increases risk of exposure
Primary (puppy)	Bordetella Parainfluenza (kennel cough)	For most dogs this is unlikely to be needed within the next 2 months. If vaccinating for other reasons and it is possible to give an intranasal vaccine whilst maintaining social distancing then can be given at same time. Beware of use near immunocompromised people. In exceptional circumstances where an outbreak of kennel cough could affect large numbers of dogs in a household or premises then vaccination may be required.
Primary (puppy) & Booster	Rabies	Only in exceptional circumstances (e.g. repatriation, overseas work). Not necessary at this time for pre-emptive future holiday arrangements.
Booster (including first booster)	Distemper virus Parvovirus Adenovirus	For most dogs this is not necessary for the moment as immunity is long-lived and incidence of disease in vaccinated and boosted dogs (regardless of time since last vaccine) is very low. First booster is a higher priority.
Booster (including first booster)	Leptospirosis	Local knowledge, dog type (see page 8). Unlikely to be necessary within the next 2 months unless high risk area or dog type (and over 15 months since last vaccination). First booster is a higher priority. Unlikely to be necessary on human health grounds.
Booster	Bordetella Parainfluenza (kennel cough)	For most dogs this is not necessary within the next 2 months. In exceptional circumstances where an outbreak of kennel cough could affect large numbers of dogs in a household or premises then vaccination may be required.

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VACCINATION TYPE	VACCINE USED	FACTORS TO CONSIDER IN INDIVIDUAL RISK ASSESSMENT
Primary (kitten)	Calicivirus Herpesvirus Parvovirus/ Panleukopenia/ Enteritis	If kitten can be kept indoors and away from adult cats, then risk is considerably reduced. However, consider behavioural consequences. Remember some infections can be spread from asymptomatic adult cats to kittens. If vaccinating one kitten, then also vaccinate all kittens that live in household or on premises. 1st vaccination: 12 weeks, 2nd vaccination 4 weeks later
		(to delay footfall).
Primary (kitten)	Chlamydia Feline leukaemia virus	Very unlikely to be necessary at this time even if kitten going outside, unless in large multi-cat household. Only spread by close social contact (not fighting).
		Can be included if animal is at practice for other vaccines.
Primary (kitten) & Booster	Rabies	Only in exceptional circumstances (e.g. repatriation or overseas work). Not necessary at this time for pre-emptive future holiday arrangements.
Booster	Calicivirus Herpesvirus	For most cats this is not necessary at this time as immunity is long-lived and incidence of disease in vaccinated and boosted is very low.
	Parvovirus/ Panleukopenia/ Enteritis	For very high-risk environments (e.g. multi-cat households with endemic infections) calicivirus/herpesvirus booster may be necessary.
Booster	Chlamydia Feline leukaemia virus	Very unlikely to be necessary unless in large multi-cat household. Only spread by close social contact (not fighting). Immunity to Chlamydia is relatively short lived.
		Can be included if animal is at practice for other vaccines.

## Prioritisation of the need for vaccination of dogs and cats



\* and \*\* see notes on leptospirosis and parvovirus on page 8

## Small mammals

VACCINATION TYPE	VACCINE USED	FACTORS TO CONSIDER IN INDIVIDUAL RISK ASSESSMENT
RABBIT		
Primary & Booster	Myxomatosis	Seasonal disease spread from wild rabbits and flies can spread infection to indoor rabbits. Common and serious disease. Consider geographical risk and indoor/outdoor environment but generally regarded as essential vaccination.
Primary & Booster	Rabbit haemorrhagic disease 1	Less common disease but if vaccinating or boosting against myxomatosis then some vaccines will cover against both.
Primary & Booster	Rabbit haemorrhagic disease 2	Essential for outdoor rabbits and important for indoor rabbits where owners are going for walks in areas where there are wild rabbits. Depending on local risk assessment, if using Filavac (RHDV1 and RHDV2) or Eravac (RHDV2 only), then likely to need to use Myxo and RHD I combination vaccine as well. Both need annual boosters. Separate vaccines from different manufacturers by 2 weeks. New triple combination vaccine with annual renewal imminent.
FERRET		
Primary & Booster	Rabies	Ferrets travelling under the Pet Travel Scheme are legally required to be vaccinated against rabies. Only in exceptional circumstances (e.g. repatriation or overseas work). Not necessary at this time for pre-emptive future holiday arrangements.
Primary & Booster	Distemper	Transmitted from dog or other ferrets. No vaccine is currently licensed for use in ferrets against distemper. Consider keeping indoors as an alternative to primary course. Once vaccinated, immunity is very good, it is not necessary to provide boosters at this time except under truly exceptional circumstances.



The following are notes explaining some of the reasoning and providing some of the references used in the preparation of these information sheets:

#### **Off-label recommendations**

Some of the information presented here may require the use of the cascade ('going off-label') to protect animal welfare and human health. In all cases it is important to obtain informed consent from the owner before using a drug in a non-authorised way. Different companies that produce very similar vaccines may have slightly different marketing authorisations, so it is important to be familiar with the products available in your practice. Please consult manufacturers if unsure.

#### Large groups of dogs or cats

Veterinary surgeons may be asked to consider vaccinations for large groups of dogs or cats housed together e.g. commercial breeding premises, rescue and re-homing centres. In such instances a risk assessment and clinical judgement will need to be applied. In addition, so as to adhere to UK government advice on limiting travel and social distancing, it may be more appropriate for the veterinary surgeon to visit the premises to perform multiple vaccinations on one occasion. Maintaining social distancing and prudent use of PPE will need to be considered.

#### Leptospirosis

Leptospirosis is a serious disease in dogs and prevention is better than treatment. However, there are no reliable data on the national or local prevalence of leptospirosis in dogs. Not all serovars are covered by current vaccinations. Immunity lasts *at least* 15 months. Studies have suggested that older individuals, those in urban environments and those with exposure to wildlife and stagnant water sources are at higher risk. Immunity to leptospirosis is often measured using antibodies; however, the absence of detectable antibody does not mean that the vaccinated animal is susceptible.

The zoonotic risk of canine leptospirosis in the UK is very low and should be balanced against the extra human risk from Covid-19 inherent in vaccinating dogs against leptospirosis in the next two months. For further information on the human leptospirosis in the UK see https://www.gov.uk/government/publications/ common-animal-associated-infections-quarterly-reports-2019

#### Parvovirus

Parvovirus is a serious infection in dogs and prevention is better than treatment. However, immunity against parvovirus lasts *at least* 3 years. Disease in correctly vaccinated and boosted dogs is very rare and so delays to booster vaccinations of two or more months are unlikely to have a significant effect on disease in the population or an individual. Assessing risk of parvovirus depends on local knowledge and data available from surveillance sources such as SAVSNET (which takes data on confirmed cases from most of the UK diagnostic laboratories).

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### Sources used

Azócar-Aedo, L. & Monti, G. (2016) Meta-analyses of factors associated with leptospirosis in domestic dogs. *Zoonoses Public Health* **63**, 328-336

Barmettler, R., Schweighauser, A., Bigler, S., Grooters, A. M. & Francey, T. (2011) Assessment of exposure to Leptospira serovars in veterinary staff and dog owners in contact with infected dogs. *J Am Vet Med Assoc* **238**, 183-188

Böhm, M., Thompson, H., Weir, A., Hasted, A. M., Maxwell, N. S. & Herrtage, M. E. (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. *Vet Rec* **154**, 457-463

Day, M. J., Horzinek, M. C., & Schultz, R. D. (2016) WSAVA Guidelines for the vaccination of dogs and cats. J Small Anim Pract **57**, E1-E45

Gore, T. C., Lakshmanan, N., Duncan, K. L., Coyne, M. J., Lum, M. A. & Sterner, F. J. (2005) Three-year duration of immunity in dogs following vaccination against canine adenovirus type-1, canine parvovirus, and canine distemper virus. *Vet Ther* **6**, 5-14

Grosenbaugh, D. A. & Pardo, M. C. (2018) Fifteen-month duration of immunity for the serovar Grippotyphosa fraction of a tetravalent canine leptospirosis vaccine. *Vet Rec* **182**, 665

Guagliardo, S. A. J., Iverson, S. A., Reynolds, L., Yaglom, H., Venkat, H., Galloway, R., Levy, C., Reindel, A., Sylvester, T., Kretschmer, M., LaFerla Jenni, M., Woodward, P., Beatty, N., Artus, A., Klein, R., Sunenshine, R. & Schafer, I. J. (2019) Despite high-risk exposures, no evidence of zoonotic transmission during a canine outbreak of leptospirosis. *Zoonoses Public Health* **66**, 223-231

Hennebelle, J. H., Sykes, J. E. & Foley, J. (2014) Risk factors associated with leptospirosis in dogs from Northern California: 2001-2010. *Vector Borne Zoonotic Dis* **14**, 733-739

Killey, R., Mynors, C., Pearce, R., Nell, A., Prentis, A. & Day, M. J. (2018) Long-lived immunity to canine core vaccine antigens in UK dogs as assessed by an in-practice test kit. *J Small Anim Pract* **59**, 27-31

Larson, L. J. & Schultz, R. D. (2007) Three-year serologic immunity against canine parvovirus type 2 and canine adenovirus type 2 in dogs vaccinated with a canine combination vaccine. *Vet Ther* **8**, 305-310

Martin, L. E., Wiggans, K. T., Wennogle, S. A., Curtis, K., Chandrashekar, R. & Lappin, M. R. (2014) Vaccineassociated Leptospira antibodies in client-owned dogs. *J Vet Intern Med* **28**, 789-792

Mitchell, S. A., Zwijnenberg, R. J., Huang, J., Hodge, A. & Day, M. J. (2012) Duration of serological response to canine parvovirus-type 2, canine distemper virus, canine adenovirus type 1 and canine parainfluenza virus in client-owned dogs in Australia. *Aust Vet J* **90**, 468-473

Riedl, M., Truyen, U., Reese, S. & Hartmann, K. (2015) Prevalence of antibodies to canine parvovirus and reaction to vaccination in client-owned, healthy dogs. *Vet Rec* **177**, 597

Schuller, S., Francey, T., Hartmann, K., Hugonnard, M., Kohn, B., Nally, J. E. & Sykes, J. (2015) European consensus statement on leptospirosis in dogs and cats. *J Small Anim Pract* **56**, 159-179

Taguchi, M., Namikawa, K., Maruo, T., Lynch, J. & Sahara, H. (2010) Antibodies to parvovirus, distemper virus and adenovirus conferred to household dogs using commercial combination vaccines containing Leptospira bacterin. *Vet Rec* **167**, 931-934

Vila Nova, B., Cunha, E., Sepúlveda, N., Oliveira, M., São Braz, B., Tavares, L., Almeida, V. & Gil, S. (2018) Evaluation of the humoral immune response induced by vaccination for canine distemper and parvovirus: a pilot study. *BMC Vet Res* **14**, 348

Wilson, S., Stirling, C., Thomas, A., King, V., Plevová, E., Chromá, L., Siedek, E., Illambas, J., Salt, J. & Sture, G. (2013) Duration of immunity of a multivalent (DHPPi/L4R) canine vaccine against four Leptospira serovars. *Vaccine* **31**, 3126-3130

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