

Question 2:

To what extent do you agree or disagree with the proposal to promote or require use of the Model Conditions by local authorities, for activities where they have been agreed?

Please provide any comments or evidence to support your answer.

Totally disagree in the strongest terms.

Pet Welfare Alliance comments and evidence:

- 1) We wish to make it clear that in its response below, the Pet Welfare Alliance's (PWA) motive first and foremost is the health and safety of animals under the Animal Welfare Act 2006, specifically with regard to vaccination, and more pertinently, over-vaccination which causes ill-health and death.
- 2) The PWA also represents the interests of pet owners, and the animals themselves, in addition to veterinarians and scientists who contend, along with the World Small Animal Veterinary Association (WSAVA) Vaccine Guidelines Group, that companion animals are being unnecessarily over-vaccinated.
- 3) WSAVA vaccine guidelines states: "Vaccines should not be given needlessly. Core vaccines should not be given any more frequently than every three years after the 6- or 12-month booster injection following the puppy/kitten series, because the duration of immunity (DOI) is many years and may be up to the lifetime of the pet."
- 4) In the WSAVA puppy vaccine summary, clarification is offered: "The WSAVA states that we should vaccinate against the core diseases no more frequently than every three years. This is often taken to mean that we should vaccinate every three years – but this is not the case. If the dog is already immune to these three core diseases, re-vaccinating will not add any extra immunity."
- 5) WSAVA guidelines also states: "Non-core vaccines should be given no more frequently than is deemed necessary."
- 6) The WSAVA puppy summary also states: "The WSAVA supports the use of titre testing."
- 7) The DEFRA consultation document refers to the Chartered Institute of Environmental Health's (CIEH) Model Licence Conditions (MLCs) for pet vending and dog breeding. There is no mention in your Consultation Document of MLCs for boarding establishments (although it is included in the overview on the DEFRA Consultation website).
- 8) The CIEH is due to publish new pet boarding establishment vaccine recommendations (as part of their fuller MLCs). Therefore we presume that, for some reason, your Consultation Document has failed through error or omission to mention boarding establishments as part of the Consultation Document.

- 9) Currently, CIEH vaccine recommendations for boarding establishments are advisory but not mandatory. Councils are currently free to establish current science themselves and alter their kennel licensing requirements accordingly.
- 10) Should CIEH recommendations be incorporated into law, the general public would be robbed of the right to make informed vaccination choices on their pets' behalf, and kennel owners would also be robbed of the right to make informed and educated choices.
- 11) This contradicts BSAVA claims, and general veterinary guidance, that vaccine procedures should be agreed on an individual basis between veterinarian and pet owner. Therefore vaccine requirements for dogs entering boarding establishments should be based upon guidance, taking into account the requirements of individual dogs, and not mandatory.
- 12) We do not know whether the CIEH will incorporate the right to conduct titer tests to establish active immunity, rather than insist upon vaccines that confer no added immunity but pose a potential health risk to vaccinees. From the little information they have furnished us with, we believe they won't. Indeed, they have put a case to us to tell us why titer testing should not be allowed. This is in direct opposition to the views of the WSAVA VGG and hundreds of veterinary practices, and thousands of dog owners in the UK.
- 13) Current CIEH guidelines for boarding establishments date back to 1995: 21 years ago. Should new vaccine recommendations prove to be damaging to animal health, how long will it take for new recommendations to be issued?
- 14) Importantly, if set in stone as law, how long would it take to amend forthcoming Animal Health and Welfare Animal Establishments Licensing legislation in the future?
- 15) Here is an example of the potential problem: Should there be safety concerns surrounding a particular vaccine, will boarding establishments still have to insist upon its use? If pet owners are concerned by a seemingly high number of reactions to a particular vaccine, but the VPC has not yet adjudicated, or the VMD has not withdrawn a suspected product, will pet owners still be forced to use this questionable vaccine? If so, this would be contrary to the Animal Welfare Act and European Law. It would also have the potential to confer mandatory harm. This process is, in turn, contrary to fundamental human rights.
- 16) You state in your consultation document that, 'This will allow us to keep the system up to date with both the science and best practice in animal keeping.' – which, if as you say is reliant upon the CIEH, then their procedure is long and drawn out and any amendment to include up to date science may well be out of date by the time it was introduced.
- 17) We believe the CIEH MLCs are potentially contrary to the the Animal Welfare Act 2006 as the CIEH working group is potentially unconstitutional, undemocratic, unaccountable, and subject to conflict of interest.

- The CIEH has refused to name the members of the working group when requested to do so by the PWA.
- The public is therefore being kept in the dark of any potential veterinary vaccine industry influence.
- The working group coordinator, Paula Boyden, is a former veterinary vaccine industry employee and therefore has a potential conflict of interest or bias.
- Ms Boyden initially entered into correspondence with the PWA but has refrained from answering any questions. Ms Boyden has stated that, having consulted working group members, she will not enter into further dialogue with the Pet Welfare Alliance.
- The Pet Welfare Alliance sent vaccine requirement proposals to the CIEH working group and the CIEH didn't think it necessary to even reply to our original points.
- If Defra's **Consultation** Process is to be of any value or integrity, it must incorporate the views of pet owners. Since the CIEH has refused to do this, the CIEH should not be allowed to set the agenda. This is highly undemocratic.
- The CIEH MLC working group is selective consultation and, we fear, biased in favour of pharmaceutical industry sales.
- The CIEH claims that it is following current science. However, there appears to be no agreement as to what the current science actually is! Do we listen to the World Small Animal Veterinary Association Vaccine Guidelines Group, or do we listen to the veterinary vaccine industry? And, more pertinently, who is the CIEH acting on behalf of when we are not even allowed to know who is in the working group, or what their conflicts of interest might be?
- PWA were afforded scant information relating to the CIEH's esoteric take on current science. Rather, we were treated as pariahs, and refused any scientific insight into the direction of their vaccine recommendations. This is called 'secrecy' and is not open consultation.
- With regard to the information we were given, it is full of deflective wording (making statements that sound good but don't deal with the specific matters being discussed), and arguments with no scientific justification.
- It appears that CIEH recommendations will be dropped on everyone as a fait accompli and, it seems, incorporated into the Animal Health and Welfare Review of Animal Establishments Licensing legislation.
- Therefore, if the CIEH MLC working party is not open to proper consultation, then its recommendations are merely being secretly slipped-in to legislation.
- No vaccine is without potential harm. The scientific literature confirms that encephalitis, atopy, autoimmunity and cancer (among others) are unwanted sequelae to vaccination. Therefore we must insist upon minimising the vaccine risk whilst also ensuring that animal boarding establishments do not subject pets to unnecessary disease risk.

18) In our experience (as with our dealings with the CIEH working party) we have not seen 'fair play' or an accountable democratic process in place within DEFRA, the VMD, the VPC, or the UK veterinary bodies, or indeed the parliamentary system. This ignores the very real vaccine adverse reaction

possibility, and does not allow a voice for justified and scientific opposition. Therefore, in addition to submitting online, this response has also been sent by email, and recorded post to the consultation address provided to ensure that you have every opportunity to take the PWA consultation response into account.

- 19) As we believe, based upon over two decades of experience, our voice will not be heard, our response and objections have been made public. The legitimate input of pet owners and scientists who know that companion animals are being routinely over-vaccinated without a shred of scientific justification has been seemingly blocked by the CIEH working group. Should their MLCs be accepted and incorporated into the act, democracy will have been bypassed. The ultimate result is that pet owners will be forced to inject unnecessary and potentially damaging biological agents into their pets.

Background notes:

- 1) The CIEH publicised on their website in 2014 that updated MLCs for boarding establishments were to be published. However, they have not yet materialised.
- 2) In 2015 the Pet Welfare Alliance approached the CIEH by telephone to ask why the MLCs were still not available, and were told that the CIEH is primarily interested in humans, and that animals are a secondary consideration. We were informed that funding to organise animal matters had not been forthcoming, plus they had not been able to 'get organised', but it was due to be progressed.
- 3) All future correspondence was then conducted by email.
- 4) We were then informed (after we followed-up) that a working group had been set up and we were referred to the working group co-ordinator.
- 5) The working group co-ordinator is Paula Boyden, the Dogs Trust chief vet. Ms Boyden is an ex-Intervet (vaccine manufacturer) employee and therefore has a potential conflict of interest. We feel that someone with such a background and influence should not be placed in such a position. As a reference, we refer you to the recent child abuse investigation where the appointment of a co-ordinator/chairperson was continually thwarted due to conflicts of interest. Prior background and links to the subject matter were seen to be unacceptable. There is no reason why this comparison should not be made – it may be a different subject but the principles are the same. It is not acceptable for someone with a potential vested influence (past or present) to be afforded a position that potentially sets mandatory invasive procedures into law.
- 6) In her initial response, Ms Boyden asked us to clarify our request and submit it by 13th February 2015 so it could be circulated to the working group prior to their meeting.
- 7) Prior to our correspondence with the CIEH working group, over a period of two years, the Pet Welfare Alliance sent letters to councils and boarding establishments to share current vaccine science.
- 8) Ms Boyden attached a letter in her correspondence to us to show that the Dogs Trust had subsequently sent a letter to boarding establishments (in response to our letter) and asked for our comments. We wonder what the Dogs Trust was doing when it tried to counteract our letter? Especially when it appeared to take the vaccine industry line.

For example, the letter from the Dogs Trust states:

Antibody titre testing

- Titre tests are not valid for all diseases
- Antibody titres do not necessarily correspond to protection
- For some agents, antibody titres can predict protection – eg for parvovirus/panleukopenia. However, laboratory techniques for measuring titres are not standardised, therefore can be very hard to interpret, potentially making the exercise null and void.
- Even where there is correlation between antibody levels and a protective immunity, it does not aid in decisions such as when to retest and how long immunity will last.
- If titre tests are used to justify vaccinating less frequently than vaccine manufacturers' recommendations, there may be implications should a dog or cat succumb to disease.

These Dogs Trust 'guidelines' are very biased, and mirror a document issued by industry trade association NOAH in response to the WSAVA puppy vaccine summary: http://www.wsava.org/sites/default/files/New%20Puppy%20Owner%20Vaccination%20Guidelines%20May%202013_0.pdf

in which the WSAVA advocates the use of titer testing.

NOAH didn't like the WSAVA puppy summary, and issued this document, which included rubbishing titer testing:

<http://www.noah.co.uk/papers/2014-04%20NOAH%20statement%20on%20canine%20vaccination.pdf>

By contrast, Professor Michael Day, current chairman of the WSAVA VGG states strongly:

“For CDV, CPV, CAV and FPV the presence of serum antibody able to neutralize infectious virus and prevent infection and disease provides an extremely strong correlate of protection. This correlation is so strong that it is possible to state that the presence of serum antibody to one of those viruses equates definitively with protective immunity. Some regulatory authorities are now beginning to accept seroprotection rather than experimental challenge in modulating licence claims. The presence of serum antibody does not, however, provide a correlate of immunity for FCV and FHV protection. For respiratory pathogens such as FCV, the presence of mucosal secretory IgA provides a correlate of protection, but it is not possible to measure these antibodies routinely. For FHV there is a stronger correlation between protection and cell-mediated immunity (CMI), but again it is difficult to measure CMI on a routine basis.”

Bias in favour of industry from Ms Boyden and the Dogs Trust! Why? Ms Boyden is the coordinator of what should be an independent-from-industry working group. She doesn't appear to be. Added to this, the fact that the Dogs

Trust has already circulated information of this nature should automatically preclude her presence in this working group.

- 9) In an email to us (dated 29th January 2015) Ms Boyden states ‘it would be unfair of me to respond on behalf of the working group without consulting them’ – but the Dogs Trust had already sent letters to the same effect to boarding establishments, and with the same points, arguments and subject matter. This is a direct conflict of interest, and we would question why it was acceptable to send letters to kennels with their views but not acceptable to allow an open, honest and transparent exchange of ideas specifically concerned with over-vaccination.
- 10) On the 5th February 2015, we responded to Ms Boyden’s letter (at her request) and clarified our proposal for the vaccine element of the MLCs for dog boarding. We also explained how it would cover all the requirements or issues the Dogs Trust had raised in their response letter to boarding establishments.
- 11) We received confirmation from Ms Boyden that she had received our email and said she would contact us at the end of February after their next meeting.
- 12) We never receiving anything from Ms Boyden without having to prompt. Each time we followed up on the promised dates, we were given later dates. Why give us dates for a reply that were never fulfilled? At best this is an inability to act as a co-ordinator, and at worst, stalling tactics.
- 13) In an email on the 4th May 2015, Ms Boyden gave the impression that matters were coming to a conclusion with regard to the MLCs. Or at least they had certainly been agreed (prior to providing any reply to the Pet Welfare Alliance). So it was obvious at this stage that anything the Pet Welfare Alliance had to say was not going to be relevant to them or their process and they had not addressed our query at all.
- 14) This is clearly not open consultation with all parties involved. Therefore if the CIEH MLCs are incorporated in detail into the act, then the whole process of DEFRA’s **Consultation** is a farce and potentially designed to deceive.
- 15) We eventually received a reply for the first time on the 18th May. Ms Boyden stated she had all the information and would reply the next day.
- 16) On the 19th May 2015, we received the working group reply in a letter attached to an email (letter and email both signed by Ms Boyden). This did NOT include a reply to our request (regarding our proposal for the vaccine elements of the MLCs). But it did finish with ‘the group cannot enter into an extended dialogue on this matter’.
- 17) So, after four and a half months of constant delays in replying to us, we received a response that did not even mention our main query. Again, this is not open consultation.
- 18) With regard to the information we did receive in the letter, it is full of deflective wording (making statements that sound good, but aren’t actually dealing with the specific matters being discussed) and arguments without

scientific justification. When the subject of veterinary pet care is the matter in hand then we would expect statements from bodies that include veterinary associations to include scientific justification and actually deal with the subject rather than deflect away from it.

- 19) We replied to Ms Boyden stating that they hadn't responded to our query, and asked when the new MLCs would be published. We asked for their response without further delay. We did not, and have never, received a reply to that email, or indeed had any further contact from Ms Boyden. We also copied in our CIEH contact (the working party CIEH representative – Bob Mayho), but again received no reply. Apart from our initial telephone call to the CIEH, Mr Mayho has been our only contact at the CIEH.
- 20) Just before Christmas 2015 we emailed Mr Mayho for an update as it was coming up to a year since we made our first contact on this matter. We received an immediate reply to say that he was expecting the draft that week to be followed by annexes that would then need to be designed and prepared for publication and he would advise us when they were available. To date we have not received any more news or contact from the CIEH.
- 21) As stated previously, we were refused details of the members of the working party group and will not know that fully until the updated MLCs are published. What we do know is that the 1995 (and current) MLCs had involvement from the CIEH, Feline Advisory Bureau, BSAVA, Association of District Councils, and the Pet Trade and Industry Association. The publication was sponsored by Firmfix Ltd, Woodgreen Animal Shelters, Parasol Animal Housing Ltd, CIEH, Feline Advisory Bureau, Pet Trade and Industry Association, Pedigree Petfoods, and Spillers Petfoods.
- 22) We understand that alongside the CIEH, Woodgreen, Dogs Trust, BSAVA, PIF (Pet Industry Federation, formerly PCTA – Pet Care Trade Association) are amongst involved with the updated MLCs yet to be published, and we would expect sponsorship from within the pet industry, plus those associations (or similar) to those for the 1995 MLCs.
- 23) What we do not know, and need assurance of, is that no individual or organisation within the working group has associations with the veterinary vaccine industry – whether it be through research grants, sponsorship, or other pecuniary benefits.
- 24) Our concern is that the CIEH working group is also subject to conflicts of interest, and this is not in the best interests of pets or their owners. Perhaps this is why those bodies within the CIEH working party would not wish to have to scientifically justify their recommendations and are biased in their advice (as per the one letter we received from them).
- 25) The PIF is an industry association (afforded a link on NOAH's website) so will naturally have a biased interest with regard to areas of the MLCs. It is quite ironic, however, that last year the PIF carried its own MLCs on its website that included titer testing as an option. We can now no longer find any MLCs on the PIF website.

- 26) We would like to add that many councils choose not to follow the CIEH model, having been given referenced scientific information on the current science by the Pet Welfare Alliance, or from their own research. To mandate the CIEH model upon them would be entirely wrong. Industry-biased data, which boosts sales, has nothing to do with animal welfare.
- 27) Despite the BSAVA being part of this process, it should be noted that many vets in the UK follow the WSAVA guidelines with respect to vaccination, so the BSAVA (which publicly states it is up to the vet to determine vaccine frequency in individual cases, and does not tell its members to ignore WSAVA guidelines) is part of potential legislation that might dictate mandatory vaccine policy. This is a complete contradiction.
- 28) Furthermore, it is against government licensing requirements that vaccines should be given where they are contraindicated.
- 29) If mandatory and unnecessary vaccination is incorporated into law, then when a dog has a reaction who would be sued?
- 30) Pet owners, vets, boarding establishments, and local authorities deserve freedom of informed choice. To enforce the CIEH MLCs as fait accompli is not democratic, and removes a very important human right of freedom of informed choice.
- 31) The work has been done by members of the WSAVA VGG: once immune to the core viral diseases dogs remain immune for years and potentially life.
- 32) The WSAVA VGG guidelines state unequivocally: “the presence of serum antibody, regardless of titre, in an actively immunized dog over the age of twenty weeks is correlated with protection”.

Please also consider these titer testing related links to papers written by professors Day, Ford, and Schultz, members of the WSAVA VGG and to the Biogal (VacciCheck) website:

http://www.petwelfarealliance.org/uploads/3/0/3/6/3036695/what_we_need_to_know_about_vaccination_and_titre_testing_prof_michael_j._day.pdf

http://www.petwelfarealliance.org/uploads/3/0/3/6/3036695/considerations_for_the_titer_testing_of_core_canine_vaccines_from_professor_ronald_d_schultz..pdf

http://www.petwelfarealliance.org/uploads/3/0/3/6/3036695/ford_titers.pdf

<http://youtu.be/J-nnTu8Sevs>

<http://biogal.co.il/videos/>

<http://vaccicheck.com/incorporating-titer-testing-practice/>

- 33) The WSAVA lists the Leptospirosis vaccine as non-core (optional), and cautions with regard to the lack of efficacy and safety concerns surround this vaccine. The veterinary vaccine industry has tried to cobble data together to justify the routine use of the Leptospirosis vaccine in the UK, which we contend would not stand up in a court of law. Leptospirosis is rare in the UK according to CIEH data (although it appears to have increased since the introduction of the Nobivac Lepto 4 vaccine, which itself raises safety concerns) – which in turn raises doubts about the wisdom of mandatory Leptospirosis vaccination. What a scandal would ensue if mandatory vaccination against Leptospirosis was introduced if safety concerns exist!
- 34) The VMD has published its review of adverse event reports during 2014, but lumped the Leptospirosis vaccine in with core vaccines despite the fact that it is frequently given in isolation. The general public therefore has no ability to assess the safety or risk of the already questioned Leptospirosis vaccine:
<https://www.gov.uk/government/news/the-vmd-has-published-its-review-of-adverse-event-reports-received-during-2014>
- 35) However, the European Medicines Agency has also issued its veterinary pharmacovigilance 2014 public bulletin:
http://www.ema.europa.eu/docs/en_GB/document_library/Other/2015/03/WC500183739.pdf

This document is more enlightening, viz:

*Nobivac L4
(vaccine to prevent Leptospira infections in dogs).*

Several signals were identified, mainly relating to anaphylaxis and various immune-mediated conditions such as anaemia, thrombocytopenia and arthritis. The MAH was advised for the upcoming PSUR to compare the incidence of these adverse events with its other Leptospira product, which contains only two serovars.

There are no conclusions yet related to potential causal relationship and regulatory action has not been considered necessary at this stage.

- 36) Surely these bodies are being somewhat cavalier on our dogs' behalf? Anecdotal evidence indicates that the Lepto 4 vaccine is causing neurological and immune-mediated disease in our dogs. There is even a Facebook group for its victims. For a vaccine that appears to be looking for a market in the UK – a non-tropical country where the disease is historically as rare as hens teeth – enforced use of this vaccine would be despicable.
- 37) According to the CIEH itself, in its document, 'Role of Pest Management in Environmental Health':
<http://www.salford.gov.uk/i/RoleofPestManagementinEH%28CIEH%29.pdf>
Page 39: "It is the job of today's pest control technicians to assess not only the actual presence of pests but also the likely presence of pests and their possible routes of invasion. In other words it is the job of the pest controller to spot problems before they occur and to implement a programme of action".

38) In the same document, on page 40, it is stated: "...it is the duty of all pest controllers to consider and recommend other actions required to sustain a pest-free environment or to prevent reinfestation. This may involve changing housekeeping practices such as the cleaning rota or varying environmental factors such as the temperature or ventilation, but more importantly, regular maintenance of the building fabric to prevent entry or re-entry by pests".

In other words, boarding establishments should be required to act to discourage rodents and reduce Leptospirosis risk!

39) According to the Cicada survey - <http://uk.cicadasurvey.com/> (where once again secrecy bars pet owners from making informed choices on their pets behalf!) extrapolated figures indicate Leptospirosis is not highly prevalent in the UK amongst dogs. Our veterinary friends tell us that this figure was around 250 cases, although it is difficult to rely on this industry figure when detection of Leptospirosis is fraught with problems. The point, of course, is that the vaccine conceivably represents a greater risk than the disease to dogs and their owners in the UK. Further, the serovar that seems to be arising in dogs since the introduction of the Bratislava-containing Lepto 4 vaccine appears to be Bratislava itself (yet another safety concern).

Additional Notes Regarding the Role of the Veterinary Vaccine Industry

In April 2014, in response to the new WSAVA puppy vaccine guidelines summary http://www.wsava.org/sites/default/files/New%20Puppy%20Owner%20Vaccination%20Guidelines%20May%202013_0.pdf, the veterinary vaccine industry issued a statement via its trade association, NOAH <http://www.noah.co.uk/papers/2014-04%20NOAH%20statement%20on%20canine%20vaccination.pdf>.

NOAH claimed that the WSAVA puppy summary, on the WSAVA website, contained discrepancies regarding the protocols veterinary practices had adopted and the advice contained in the SPCs. The veterinary vaccine industry wasn't happy about the clarification given by the WSAVA for non-core vaccines; nor were the vaccine sellers happy about the promotion of titre testing in place of unnecessary shots – quoting one out-of-date and biased research paper in support of their assertion.

NOAH went on at length about the licensing procedure and rigorous assessments they are subjected to, and asserted that the veterinary surgeon is best-placed to tell the client to [over] vaccinate. So, they say, is the veterinary surgeon best-placed to make a risk assessment about leptospirosis vaccination, claiming that the majority in the profession consider lepto a core vaccine (although the WSAVA calls it non-core). Any decision not to include lepto in the programme would, in NOAH's opinion, require clinical justification and informed consent from the client. The decision regarding kennel cough vaccination should also, according to NOAH, come from the vet who should offer informed consent to the client.

The problem here, of course, is that vets are not educated in vaccinology and are being encouraged by NOAH and the VMD to make more of lepto and kennel cough than informed pet owners might do, chiefly because we don't want to inject brain damage, allergies or autoimmunity into our dogs without good cause.

NOAH expressed concern that the WSAVA is continuing to educate the public and claimed there was a lack of evidence for the association between vaccination and the onset of diseases such as epilepsy and arthritis. The trade association also scaremongered, asserting that since pets now travel overseas, the threat of infectious disease is ever-present.

Dr Jean Dodds, veterinarian, researcher, and founder of the non-profit haematology organisation, Hemopet, was moved to respond directly to NOAH:

Dear Colleagues:

I read with interest the “NOAH Statement on canine vaccination” dated April 14, 2014, but feel that several points need to be clarified in response. Specifically:

The statement, *“We are not aware of any evidence that suggests that leptospirosis vaccines are associated with any increased risk of adverse reactions or that toy breeds of dogs require any additional precautions when receiving vaccinations against leptospirosis”*, flies directly in the face of the known adverse hypersensitivity reactions to leptospirosis vaccines.

As listed in the 2011 AAHA Canine Vaccination Guidelines (1; p. 15): Non-infectious vaccines, like leptospirosis, can induce –

- Acute adverse reactions (e.g., hypersensitivities) include: anaphylaxis, injection site pain, angioedema (facial edema), injection site granulomas, local inflammation abscesses, lameness, reactivation of immune-mediated diseases in predisposed dogs.
- Delayed adverse reactions (e.g., hypersensitivities) Ischemic vasculitis (skin), increase in severity of type I atopic disease, reactivation of immune-mediated diseases (e.g., IMHA, IMTP, RA, etc.), and other hypersensitivity disorders possible in predisposed dogs (rarely occurs).

Inactivated (killed) vaccines can be associated with a higher incidence of adverse events when administered as a polyvalent combination product, especially in small breed dogs (1). Further, vaccine reactions are under-reported in veterinary and human medicine.

The paragraph stating: *“Serology is a useful diagnostic test with regards to assessing humoral responses but can have limitations for determining vaccination status in individual animals. Results are not always easy to interpret (Burr, 2006), take no account of cell mediated immunity, and for the owner may set false expectations. This may result in difficult decisions when the results reveal an indeterminate level as well as additional cost of sampling and significant delays whilst awaiting results”*, is misleading as modified live virus (MLV) vaccines are effective because they provide the same immunity (cellular, humoral, systemic, and local) produced by natural exposure (1, 2).

Properly immunized animals have sterilizing immunity that not only prevents clinical disease but the presence of antibody also prevents infection. Furthermore, the animal doesn't need and should not be revaccinated since the vaccine could elicit an adverse

reaction (hypersensitivity disorder). It is best to avoid vaccinating animals that are already protected (1-4).

Serologic tests for measuring and monitoring the presence of immunity to the “core” vaccines of dogs and cats (feline panleukopenia virus) have been documented for many years to provide a reliable and accurate indication not only of circulating humoral immunity but also of cellular, systemic and mucosal immunity (1-9). Published challenge studies have documented long lived protection from CDV, canine parvovirus (CPV-2) and canine hepatitis (adenovirus) (CAV-2), for at least 9 years and likely a lifetime, even in the absence of viral exposure or revaccination (2). Memory B and T cells should provide an anamnestic (secondary) humoral- and cell-mediated immune response that limits virus replication and prevents disease. Immune responses to the MLV “core” vaccines, CDV, (CPV-2 and CAV-2, always stimulate both humoral - and cell-mediated immunity (2).

Lastly, the statement: *“but are concerned that oversimplification of potential linked adverse events such as epilepsy and arthritis do need qualification, given the lack of evidence for the association between vaccination and the onset of these diseases. Such statements are open to misinterpretation and owners may unjustifiably assume spontaneous disease is a result of a vaccine, putting the attending veterinary surgeon in a difficult position”*, is misleading because adverse vaccine reactions to canine distemper, rabies and potentially other vaccines are known to produce seizures or encephalitic reactions, especially in susceptible dogs (3, 4, 10).

Further, the infectious MLV canine distemper virus (CDV) vaccines are capable of reverting to virulence, especially if these vaccines contain the potent Rockborn strain of CDV (10, 11) They also are known to produce post-vaccinal encephalitis (PVE) (1, 2). The Onderstepoort or recombinant CDV vaccines do not produce PVE (1, 2).

References

1. Link V, Welborn, DVM, DABVP (Chairperson), Members of the American Animal Hospital Association (AAHA) Canine Vaccination Task Force: 2011 AAHA Canine Vaccination Guidelines J Am An Hosp Assoc 2011; 47(5): 1-42.
2. Schultz RD, Thiel B, Mukhtar E et al. Age and long-term protective immunity in dogs and cats. J Comp Pathol 2010; 142 Suppl 1: S102-S108.
3. Dodds WJ. Vaccination protocols for dogs predisposed to vaccine reactions. J Am An Hosp Assoc 2001; 38: 1-4.
4. Dodds WJ. More bumps on the vaccine road. Adv Vet Med 1999;41:715-732.
5. Tizard I, Ni Y. Use of serologic testing to assess immune status of companion animals. J Am Vet Med Assoc 1998; 213: 54-60.
6. Twark L, Dodds WJ. Clinical use of serum parvovirus and distemper virus antibody titers for determining revaccination strategies in healthy dogs. J Am Vet Med Assoc 2000; 217(7):1021-4.
7. Schultz RD. Duration of immunity for canine and feline vaccines: a review. Vet Microbiol 2006;117(1):75-9.
8. Taguchi M, Namikawa K, Maruo T et al. Booster effect of canine distemper, canine parvovirus infection and infectious canine hepatitis combination vaccine in domesticated adult dogs. Microbiol Immunol 2012; 56:579-582.

9. Ford RB. Vital vaccination series: Antibody titers versus vaccination. *Today's Vet Pract* 2013; 3(3): 35-38.
10. Martella V, Blixenkron-Moller M, Elia G et al. Lights and shades on an historical vaccine canine distemper virus, the Rockborn strain. *Vaccine* 2011; 29:1222-1227.
11. Demeter Z, Palade EA, Hornyák A et al. Controversial results of the genetic analysis of a canine distemper vaccine strain. *Vet Microbiol* 2010; 142: 420-426.

Dr Jean Dodds received no reply from NOAH. Please note that 'we are not aware of ...' doesn't mean that there isn't any evidence.