BSAVA CONGRESS

Different perspectives on vaccination advice

There has been much debate on vaccination protocols for companion animals in recent years. Expert groups have produced vaccination guidelines, but there are areas where their advice differs from that provided by manufacturers and regulators. A session in the 'controversies' stream at this year's BSAVA congress in Birmingham considered the topic from different perspectives. Catherine Jacob reports

Michael Day and Anna Marie Brady, two of the speakers in the debate on the vaccination of companion animals

MICHAEL Day, from the University of Bristol and chair of the World Small Animal Veterinary Association's scientific committee as well as its vaccination guidelines group (VGG), was the first to speak.

Vets had been vaccinating companion animals for more than 40 years and, he noted, 'for most of that time, we've been using a very simple protocol', with animals being vaccinated 'against everything' annually. However, many of the core vaccines recommended for all dogs – against canine distemper virus, canine adenovirus and canine parvovirus – as well as the core feline panleukopenia vaccine for cats, now had three- or four-year licences. Non-core vaccines were required annually, but only by animals deemed to be at risk.

The recognition of feline injection site sarcomas over 20 years ago had provided 'one of the first inklings that vaccination may have some safety issues related to it', Professor Day said. An example in dogs was the triggering of a spectrum of immune-mediated disorders. Looking at recent vaccination data from the UK and USA, it could be seen that adverse reactions occurred in only a small percentage of cases. Although vaccination appeared to be an incredibly safe procedure, 'we can't be complacent, because just occasionally adverse reactions are documented,' he said.

Analysis of data on the frequency of adverse reactions had been one driver for change in vaccination protocols; another had come from 'our clients, the general public and, more importantly, the media'. Concerns about human vaccine safety had had knock-on effects in the veterinary field; for example, the MMR debate had put vaccination very firmly in the public eye and people had also begun to question the safety of vaccines in animals.

Was it possible to reduce the small risk posed by vaccination without losing sight of why it was so important? Professor Day said that vaccination guidelines groups had been created with this in mind. Vaccination guidelines were non-compulsory recommendations that could 'assist the vet in practice to use vaccines more efficiently'. Guidelines might differ distinctly from the summary of product characteristics (SPCs) associated with individual vaccines, because guidelines were 'cutting-edge, current scientific thought'. However, any deviation from the SPC in terms of how a vaccine was used required informed client consent.

Ten years ago triennial vaccination would have been controversial; now, he suggested, what was more contentious was administering core vaccines annually. The results of a UK survey had shown that, at this time last year, 53 per cent of practices had implemented the new protocol for dogs.

Another concept supported by the WSAVA's VGG was the 'annual health check', of which vaccination formed just one part. Products were now available that allowed the vet to 'mix-and-match' vaccine components between core vaccinations. There was no 'one size fits all, global vaccination schedule for dogs and cats', and the onus was on the vet to discuss and implement the best vaccination schedule for their client. Vets needed to think more rationally about the vaccines that an animal might require, and 'use non-core vaccines in particular in a much more judicious fashion'.

The production of guidelines had also highlighted a deficiency in global small animal disease surveillance, Professor Day noted. In order to make progress scientifically, good data on the prevalence of key infectious diseases were needed.

Industry perspective

Donal Murphy, technical executive at the National Office for Animal Health (NOAH), gave an industry perspective on vaccination.

'Vaccination guidelines exist from a range of sources and it is easy to see how it can be confusing for a vet to know what to do,' he said. The pharmaceutical industry viewed guidelines as a positive step in aiding the vet, in conjunction with local disease knowledge and information on the individual animal's health and lifestyle.

It was, he said, 'almost an inevitable consequence of the success of a vaccination campaign that when disease prevalence falls, the concerns about possible side effects from the vaccine rise'. Pharmaceutical companies had to adhere to high manufacturing and laboratory standards and were subject to

independent inspection. The UK had an effective pharmacovigilance network, and any trends in adverse reactions allowed changes to be made to SPCs.

Mr Murphy discussed some of the specific issues where the industry's views differed somewhat from those of vaccination guidelines groups, one of which was the timing of the primary vaccination course. Historically, vaccination regimes had tended to finish later than they did now. Earlier protection and socialisation of animals was advantageous; however, it had to be recognised that problems due to maternally derived antibodies could sometimes occur, and this point was addressed in many SPCs.

Where there was evidence that a vaccine provided extended immunity, manufacturers had been able to make changes to the required vaccination interval. However, not all animals within a population developed long-term immunity. Mr Murphy noted that the use of serology as a decision-making tool (supported by the VGG), while helpful at an individual level, was 'unlikely to be practical or economical on a widespread basis'. Furthermore, serology results could be difficult to interpret, particularly in cats.

Also, different sources gave different advice on booster vaccination intervals. Although some vaccines could now be administered triennially, the VGG recommended that a 12-month booster be given after the primary vaccination course.

Leptospirosis was classed as a non-core vaccine for dogs; however, there was evidence that it should remain as a core component of UK vaccination regimes, with animals being vaccinated annually. The endemic nature and zoonotic potential of the disease had to be remembered. Mr Murphy noted that the WSAVA's VGG guidelines referred to some additional safety considerations for vaccination against leptospirosis, for example, they discouraged the vaccination of toy breeds. However, in this respect, NOAH was 'unaware of any pharmacovigilance data that would suggest that leptospirosis vaccination required any additional or different safety measures from other vaccines.'

Market research had shown that only approximately half of pet owners questioned knew what their animal had been vaccinated against, and even then their perceived knowledge was not always correct. There was a clear message, Mr Murphy said, that 'there is a continued need for a raising of awareness in practices about the common and frequently occurring companion animal infectious diseases and about the vaccines that can be used to prevent these infections.' Also, it was important that vets continued to aim to vaccinate the many unvaccinated animals.

Regulatory perspective

Anna-Marie Brady, from the Veterinary Medicines Directorate (VMD), gave the regulatory perspective.

The regulator's role, she said, was to ensure the safety, quality and efficacy of veterinary medicines, thereby protecting animal and public health, and promoting animal welfare. The first step in this process was the rigorous review of data submitted by the manufacturer for a specific product. The regulator followed a 'very prescriptive' framework (harmonised across the EU). An overall benefit:risk assessment was made and, if favourable, a marketing authorisation for the product was granted.

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The SPC was agreed between the company and regulator before a marketing authorisation was granted. The aim of the SPC was to provide product-specific information; regulatory requirements restricted extrapolation from generic claims.

Both SPCs and guidelines were based on science, but the motivation behind that science was different, Dr Brady explained. Efficacy data for the SPC would have been generated in the UK or Europe, while guidelines might have been produced from a worldwide perspective. However, they could still be used in a complementary fashion by the practitioner. The VMD did not seek to prevent off-label use; however, the type of supportive data that had been used to inform the SPC needed to be considered, as information in the published literature might not have such a high level of assurance, she said.

Practitioner's perspective

Ross Alan, a partner in a busy small animal practice in Glasgow, gave a practitioner's perspective on vaccination.

He believed that vaccination was the single most important development in veterinary medicine. However, vets needed to constantly assess what was best for their patients and review ways in which vaccines were delivered; they needed to consider any changes or recommendations and all the possible impacts they could have. The relationship between vets and their clients was extremely important, and the vaccination advice that was imparted was critical.

While vets needed to seek informed consent if deviating from the SPC, this was not always practicable in the time available in a busy practice.

Mr Alan thought the frequency of vaccination would be likely to fall even further over the next decade. 'As a profession we should be cautious of these changes; what we have at the moment works and, not only that, it works well,' he said.

Decreasing the frequency of vaccination would likely have benefits for individual animal welfare, but it needed to be considered in light of the current level of herd immunity and regional disease variations within the UK. 'We protect against, rather than prevent, infection,' he said. Because it would never be possible to vaccinate all animals, there was always likely to be the potential for exposure to a number of diseases. With decreasing vaccination frequencies and 'increasing numbers of our profession having never seen many of these illnesses, it would be easy for apathy within our profession to develop'.

Approximately 50 per cent of dogs and 75 per cent of cats remained unvaccinated in the UK. Many animals were still at risk of preventable disease. 'We would be unwise, I believe, to decrease the level of protection, without knowing the tipping point at which drastic recurrence of a preventable illness would occur,' Mr Alan said.

He concluded that 'the challenge ahead to all of those in our profession is that we need to listen to the scepticisms and concerns and deal with them proactively. We need to respond with vigour to the need for information and base our professional response upon hard, truthful evidence that directly relates to the UK, and we should not hold back in renouncing hearsay and misinformation.

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A question from the floor raised the concern that catteries and kennels, or the local authorities that regulated them, still required animals to have had annual vaccination before admittance. Professor Day commented that 'it's up to us as a profession to educate' and, where possible, to try and bring those regulations up-to-date.

doi: 10.1136/vr.d2311

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BMJ Publishing Group Limited

Veterinary Record 2011 168: 395-396
doi: 10.1136/vr.d2311