

Administration of Intra-nasal Vaccines: the Behavioural Perspective



*"He was fine when he had it the first time."
"She's never liked coming in since she had her kennel
cough vaccine."
"Oh, you'll have trouble - it took a vet and three nurses
to hold him down last year."*

Does this sound familiar?

Administration of the intra-nasal "kennel cough" vaccine has certainly become more common place over the years. Anyone in veterinary general practice may hear these phrases all too often in their surgeries.

Some reasons for the increase in use of the intra-nasal vaccine:

- Increase in the proportion of dogs considered to be in higher risk situations e.g. boarding kennels, day care, shows, competitive sports.
- Increasing popularity of preventative health plans promoting inclusion of the kennel cough vaccine as part of a more comprehensive vaccine programme.
- Many boarding kennels insist on dogs having the vaccine before a stay on their premises.

But why can dogs become sensitised so easily to an intra-nasal vaccination?

We are all aware of the potential difficulties associated with administering an intra-nasal vaccine, particularly once a negative association has been made with it by a canine patient:

- **The patient may already struggle to accept the veterinary environment or veterinary handling:** they may already lack confidence with handling or have suffered a negative experience.

- **The client wants the vaccine done before an imminent stay at the kennels:** there may not be enough time to appropriately prepare the dog for the vaccine.
- **The administration can easily become intimidating for a less confident patient:** an unfamiliar person approaching around the head "to do something to them".
- **We are making contact with the most sensitive part of the dog's body – the nose:** not only are we approaching the head but we then apply something that doesn't taste very nice with little or no warning!
- **We are working at the "sharp end" of our patient:** hence the need for safety.



So not surprisingly, our patients are often not keen on having the procedure carried out, particularly over repeated occasions.

Intra-nasal vaccine administration can also have a profoundly negative effect on our patients' associations with future veterinary visits. It can be incredibly difficult to re-build the bridge of trust with a patient once such a negative association has been made. It can also drastically reduce the ability to carry out a valuable clinical examination at all in future.

In a busy practice, very often the tendency can be to want to get it done quickly and not necessarily give consideration to how it will affect the chances of the procedure being carried out again in the future. Also, clients may not always appreciate why it gets more difficult to do each year. To understand and explain this we need to re-visit the **Behavioural Responses** introduced in a previous newsletter:

Repulsion (fight):

- using aggressive responses and potentially climbing up the Ladder of Aggression over time to avoid having the vaccine administered.
- Increased likelihood of needing to use a muzzle, but also increasing difficulty with being able to fit a muzzle in future.

Avoidance (flight):

- Moving head away, jumping from table, hiding in a corner.
- Using increasingly wriggly behaviours to avoid having the vaccine administered.

Inhibition (freeze): minimal attempts to avoid the procedure. **NB** take care not to misinterpret this as apparent “acceptance” or “tolerance” of having the vaccine administered.

Appeasement (fiddle about): using over-excited or giddy behaviours to avoid having the vaccine administered.

N.B. Avoidance, Inhibition and Appeasement can all escalate into Repulsion with repeated exposure to intra-nasal vaccine administration. If the patient feels their behavioural response to avoid the procedure is not working, they will escalate up the Ladder of Aggression.

Each time the vaccine has to be administered we can fall into the trap of using more and more restraint in order to be able to carry out the procedure.

So, how can we avoid having to use increasing levels of restraint in order to give the intranasal vaccine?

When our aim is to encourage “fear-free” or “force-free” handling in veterinary practice, the approach to the intra-nasal vaccine should be no different to any other area of the veterinary examination.



1. Do we actually need to give the intra-nasal vaccine?

Risk assessment: is the patient in a high risk group? What is the risk?



- **High risk in terms of social environment** e.g. exposure to kennels, day care, shows, competitive sports?
- **High risk in terms of lack of emotional resilience, more nervous temperament?**

An assessment can be made based on the dog’s behaviour during veterinary handling at previous visits or at the current visit, even before an intra-nasal vaccine is ever given.

Is it in the dog’s clinical interests to have the vaccine?

2. Have the pros and cons been fully explained to the client? Not only in terms of the **medical benefits** but also the **potential behavioural and emotional effects** of having the vaccine?

3. If the dog is to have the vaccine:

- Is the owner aware that their dog may need practise to accept the intra-nasal vaccine? This can take time and commitment.
- Does the dog have any previous experience of the vaccine and how will this affect administering it in future?

How can we minimise sensitisation to the intra-nasal vaccine in the first place?

“Prevention is better than cure”

If a dog is likely to need the intra-nasal vaccine during their lifetime then we need to plan to encourage acceptance of the procedure. Trying to desensitise them once they have developed a severe aversive response can be a long and difficult process.

Building a positive emotional association with the veterinary practice and with handling will help provide the resilience to cope with any of the more negative aspects of handling.



Build and maintain our relationship with our patients throughout their lives through using positive reinforcement

- Build the relationship during their early visits, and, remember to maintain it throughout their lifetimes.
- **Keep topping up plenty of positive associations** with the practice and with handling
- **Keep plenty of reserves “in the bank”** to improve their ability to cope when needed.



Habituate animals to the veterinary environment and to handling in general

- Encourage social visits

• **Use positive reinforcement from the start** – as with any aspect of handling, reward appropriate behaviour



- A **reward** can be anything that is appropriate and valuable to the dog e.g. food reward, play with a toy, verbal praise or contact.
- The reward can come from veterinary staff or from the owner, whichever the dog is most comfortable with.

Encourage owners to practice nasal handling e.g. Incorporate “nose touch” and “chin rest” into any handling practise from puppyhood onwards.



Encourage muzzle training from puppyhood onwards (nylon and basket style).

Approach giving the intra-nasal vaccine administration in a non-confrontational way.

Remember to positively reinforce those dogs who are already having the vaccine

Acknowledge and reward their acceptance of the procedure - even if they seem to be quite accepting of it, either the first time, or on subsequent occasions.

Remember the dogs who are **behaviourally inhibited** and with whom we need to work to maintain their trust for future visits.

Coming soon.....

Topics for future newsletters include guidance on using desensitisation and counter conditioning to help dogs become more accustomed to being handled in the veterinary environment.

If you have any questions, comments or ideas for future newsletter articles please email us at info@apbc.org.uk