



Q & A Session for the Veterinary team – 19th October 2020 Emergency Management of Sound Sensitivities

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(Please note some of the questions have been re-worded to summarise them and additions have been made to a few of the answers. Where it was felt inappropriate or difficult to answer particular questions in an open forum, the questioners have been contacted individually and offered relevant help and advice.)

Q. What doses of benzodiazepines do we routinely use?

A. Alprazolam - Test dose of 0.01-0.02mg/kg then mid-high end dose range for actual dose ie 0.05-0.1mg/kg according to body weight and tablet size.

Q. Have we had experience with Pexion?

A. Emma Brown has used imepitoin for some sound sensitivity cases. In her experience it may be necessary to also give a situational medication such as sileo (dexmedetomidine for sound events).

None of us has observed increased aggression in cases that we are managing when using this medication though it is reported as a potential risk in the data sheet. This is because drugs acting at the benzodiazepine receptor site, such as imepitoin, may lead to disinhibition of fear-based behaviours.

Q. Which benzodiazepines do we prefer using?

A. For the most part, alprazolam. It is longer acting (6-8 hours) than diazepam (3-4 hours). It has less hepatic load and is less sedative.

Emma Brown would sometimes choose Diazepam for dogs if she felt that increased sedation would be beneficial.

Q. Clients often seem keen on Thunder shirts. We have mentioned the efficacy varies and we must assess the pet's response. What should people look out for to see if it is working? Do pets need acclimatising to them in advance of bonfire night?

A. Some pets become completely shut down/inhibited in them and are unable to move. This is vastly different from being calm and relaxed and able to function normally. Observe body language and only use with people who have a good understanding of their pet's behaviour. Assess the pet's response when they next see the thunder shirt, do they approach or avoid it? This may also enable to the owner to decide on using it again or not.

Q. Can we enlighten people on trazodone and how/when to use it?



- A. Trazodone is a serotonin antagonist/re-uptake inhibitor. It has effects on a number of different receptors including serotonin (5HT), alpha adrenergic and histamine receptors. It has a powerful sedative effect but also reduces awareness (unlike ACP). It does not have amnesic effects but may relieve anxiety. It may be preferable to use in combination with gabapentin or alprazolam. It is more effective if used twice daily for 48 hours prior to a vet exam or a noise event. Typical dose rates are 5-10mg/kg

Q. What dose of alprazolam would we use for retrograde amnesia?

- A. The high end of the dose range – ie approx. 0.1mg/kg

Q. What would we do if a dog presents within 24 hours of bonfire night?

- A. If the dog was very distressed and there is time to do a trial dose of Xanax, ask the client to do so that morning then report back that afternoon. Otherwise management + sileo and do Xanax trial ASAP. If the client is requesting medication for a specific planned noise event, suggest that they consider taking the pet elsewhere for the night.

Q. Is trazodone a one-off drug for vet visits? Should you use it instead of clomipramine?

- A. Trazodone is a fast-acting drug that is effective in acute situations and clomipramine as a tri-cyclic antidepressant takes a couple of weeks to become effective and so is generally used for long term management of conditions. They are sometimes used in combination with trazodone bridging the issue until the clomipramine takes effect, but care must be taken when using two medications that both impact on serotonin levels.

Q. Given the surge of puppies that were purchased over lock down, what specific advice would we have for people about to experience their puppy's first fireworks night?

- A. Habituate the puppy to their den as soon as possible. Plug a Pheromone (adaptil) plug in close to the den (in advance of the night itself). Have a large supply of tiny pieces of high-value food ready. Stay in with your puppy. Every time your puppy hears a bang, throw a piece of food onto the floor for them. They will learn that bangs predict the arrival of food and this will create a pleasant association, not a fearful one, with the sound.

Q. What would you do for cats?

- A. Keep them locked in, place all of their resources in the room they choose to hide in (space resources out within the room). Make their hiding place as comfy as possible. Block out external sounds and play back ground sound as for a dog. Plug a Pheromone (feliway) diffuser in this room (in advance of the night itself). Consider Xanax for its anxiolytic and amnesic effects or gabapentin just for anxiolytic effects. Gabapentin is also good prior to vet visits. Dose of Gabapentin - For single use fear-inducing events, 100mg per cat is typical dose. For long term use eg chronic pain, 5-10mg/kg is standard dose.

Q. If a client pops in to the practice when no vet is free to talk to them, what can a nurse or receptionist advise?

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A. Give them the management advice handout, find out a bit about their pet's history and if that pet has reacted to fireworks in the past, strongly advise booking a vet appointment.

Q. If a client reports their middle-aged pet is having issues with fireworks for the first time, what should you advise?

A. Management initially may be very similar but we would wish to rule out any concurrent physical health problems such as pain or underlying disease. Physical exam, gait analysis (live or with videos if dog is nervous) +/- gold standard analgesia trial* +/- medical work up would be advised. This is not uncommon, there is published evidence that dogs present for sound sensitivities later than they do for other behaviour issues and acquiring a co-morbidity is one explanation for this.

*A gold-standard analgesia trial would be double combination (in case one is ineffective) analgesia for 8-12 weeks. (In cases where there is a learned association with pain or anticipation of pain when performing a certain behaviour, this can take longer to subside than we sometimes appreciate and can result in people thinking an animal's behaviour is not pain-related if an animal is no different after a couple of weeks).

Q. If you are a night vet/vet on call and a client rings to report their dog is having a complete "melt down" due to the fireworks, what should you advise?

A. Episodes like this can be very difficult to deal with. The dog is having a panic response and has become very frustrated that they cannot perform their escape behaviour well enough to reduce their fear. Episodes like this can often result in destructive behaviour. Bringing them to the practice when they are in such a state could be contra-indicated as they may escape from the house when the door is opened or may be more exposed to fireworks on the way to the vets. It is also possible that the dog could show aggression if the owners attempt to move it. If one family member can remain with the dog and another can get to the practice to collect medication, this is a possibility. If that cannot happen, helping the dog to escape into a sound-proof space (eg under the stairs, filled with cushions, into a wardrobe under some blankets etc) and blocking out background noise may be all that is possible. A vet appointment must be made as soon as possible to obtain medication thereafter.

Q. If you arrive home too late to medicate your dog before the fireworks start, what would be your first choice of meds ASAP?

A. It would depend on the dog's reaction. If they are still calm, Sileo is licensed for use after a noise event has started but if they are distressed, a benzodiazepine such as alprazolam would be indicated for the potential retrograde amnesic effect.

Q. What are the down sides to using diazepam?

A. It is more sedative than alprazolam so is harder for owners to monitor their dog's response
It is shorter acting (3-4 hours) than alprazolam (6-8 hours) so may require topping up
It has a heavier hepatic effect



Q. If a dog is a bite risk, would clonidine be OK as a substitute for Sileo?

A. Yes, please see dose rates in the handout provided. It is harder to dose larger dogs given the tablet strength though.

Q. Would using food during fireworks not just reward a dog for doing unwanted behaviour such as panting or jumping on the sofa?

A. No. Food can be used immediately after a bang has occurred to classically condition them that bangs predict the arrival of something tasty.

If a dog is already reacting, they are likely to be too stressed to take food. If they are able to take food still, it would not reinforce the panting behaviour if given after each firework. Their behaviour is motivated by fear/anxiety and we can change their emotional reaction to the fireworks by making them predict the arrival of food. If they now start to look forward to food after each bang, rather than being fearful, they would be anticipating the arrival of something pleasant.

As well as using food straight after each bang, it can be used as a distraction. A stuffed kong for example will stimulate positive emotion in a dog which can help counteract the negative ones caused by the fireworks.

Q. With dogs who will not walk outside after dark, owners can become frustrated. Should we let the dog dictate whether it goes out or not after dark?

A. Yes. The dog has a learned association between it getting dark and fire works starting. Their avoidance of leaving the house is motivated by the fear/anxiety system. Forcing a dog to be walked after dark may further sensitise the dog to the darkness. It is something to be worked on, after firework season is over. During firework season, you may find a simple change in context persuades the dog to go out after dark. For instance, if they were fearful of a firework at the front door, exit for a walk using a back door.

Q. Are there restrictions for how long you can use gabapentin in cats?

A. It can be used long term (typically at 5-10mg/kg B-TID) for chronic pain. It is not advised for cats with kidney disease so long term monitoring of renal function is sensible.

It can become less effective over time but when this occurs, pre-gabalin may be able to replace it.

Q. How do you dissuade an owner/vet from using ACP?

A. This can be difficult as people are often confident that their dog has not been reacting to fireworks when they have had ACP. There is very good evidence now to show that ACP antagonises (dopamine) D2-type receptors of various tracts within the brain. This can lead to cognitive, motor and behaviour impairments resulting in dogs who can hear and process the noise but not contextualise it or respond to it which actually increases their sensitivity to sounds in the future.

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Q. As a non-veterinary behaviourist, how do I respond to my vet advising me that ACP is fine to be given as long as it is with a benzodiazepine?

A. Explain to them that this is a very risky strategy. The two medications have different durations of action and this can mean that the benzodiazepine wears off while the ACP is still acting. Some specialists advise you can worsen dogs' noise phobias by using this technique.