### FEAR FREE - RECOGNIZE, REVISE OR MEDICATE

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Fear of veterinary visits is a health and welfare issue for the pet that impacts on physical, physiological, and blood results, is a potential safety issue for veterinarians, staff and owners and leads to decreased patient return and commitment to veterinary care. Practicing Fear Free is about preventing fear, anxiety and stress (FAS), achieving positive outcomes with all aspects of the veterinary visit and calmly managing pets that are fearful and potentially aggressive.

While proactive measures are essential to prevent FAS and make the veterinary experience a "happy one", many pets arrive fearful, anxious, or painful or become fearful, anxious or stressed during the visit. Use an FAS scale with a Green (go), Amber (caution) and Red (stop) approach and monitor continuously. If FAS escalates, stop, look and revise to a) be able to proceed calmly and positively b) avoid some or all of the procedures that are not immediately necessary or can wait for a future visit with a modified approach or c) use medication immediately, or prior to a future visit or both.

#### **PRINCIPLES OF FEAR FREE**

a) Gentle control - how to comfortably and safely position the pet for veterinary care Monitor the pet's body language and find the approach, location (where the pet prefers), and handling (what the pet prefers) that keeps the pet comfortable and secure, and proceed calmly and positively using motivating treats (or play or petting) to distract, make positive associations, and continually assess level of stress. While safety is a primary concern, the less the physical restraint, the less the struggling, escape attempts and potential escalation.

#### b) Touch gradient - how to touch patients to minimize fear, anxiety and stress

Begin gentle physical contact with what the patient most readily accepts and maintain contact while moving gradually to more stressful parts of the body or more unpleasant procedures. While handling tolerance and pain sensitivity vary between individuals, for most dogs the shoulders and neck are most accepted with feet, face, ears and tail the least. Temperature, injections, and blood collection are usually the most stressful procedures.1 Cats generally prefer between the ears, cheeks and chin and are most resistant of the belly and caudal.2 Temperature, injections, blood collection and wound treatment are most stressful.

#### c) Considerate approach - how to approach in the calmest, least confrontational way

Consider all of the senses to maintain a calm, positive atmosphere, while identifying and avoiding social and environmental stimuli that might be fear or anxiety evoking. Having the owner remain with the pet reduces FAS for most pets, provides the pet with a secure base, avoids separation distress and can help to calm and reward. Recognize what might be threatening including eye contact, standing over, or reaching and approach calmly, slowly and considerately, often from the side, with the pet facing the owners.

#### d) Emotional Record – Read, recognize and record

Veterinarians, staff and pet owners must recognize body postures and facial expressions that indicate a relaxed state and a desire to positively interact as well as emerging signs of fear and anxiety. While owners most owners can identify obvious signs of FAS (fight, flight, soiling), they are less able to recognize subtle signs. Record what are stressors (dislikes) and what works (likes) in an emotional record to plan and guide future visits. The record should include what is most motivating (rewarding), where the pet prefers, who the pet prefers, location (room, surface), people, handling, equipment and procedures that cause fear or anxiety, and need for medication.

#### THE FEARFUL PATIENT

#### 1. Stop, review, revise and resume

If the pet stops taking treats or the signs of FAS reach a level of caution, then STOP, give the pet a chance to habituate and assess what caused the fear to escalate (visual, auditory, odor, tactile). By modifying the handling (gentle control), avoiding negatives (considerate approach), using more motivating treats and moving more slowly (gradient of touch), the fear might be reduced to be able to positively proceed. Products such as towels, blankets, muzzles and head halters might provide greater safety to calmly proceed, although it is best if these are familiar or conditioned in advance.

#### Eliminate the negative - accentuate the positive

Consider the pet's sensory acuity (what the pet sees, hears, smells, feels) and the response to both social and environmental stimuli to eliminate the negative and accentuate the positive. Prevent, avoid or mute sounds, sights, surfaces, physical contact and odors of people, other pets and the environment that might be unpleasant or aversive, and enhance the experience with sounds (tone of voice, music), odors (pheromones, lavender), sights (emotions, attitudes, colors), physical contact (gentle control), and surfaces (warm, soft) that might help to calm. Use sufficient and appropriate pain medication before, during and after any procedure that might be uncomfortable or painful.

#### 2. Stop, review, reschedule and revise

If the pet continues to display moderate fear, anxiety or stress, consider whether to reschedule with a new plan of action (scheduling, positive conditioning, pre-visit medication), or to use medication to complete the procedures on the same day. Determine whether some or all of the procedures can be postponed in order to implement strategies to achieve future successful visits, including modifications to the scheduling (to avoid negative outcomes), location (where the pet might prefer), environment (to make more pleasant and avoid unpleasant), gentle control, maximizing positives (fasting, favored treats or toys), and pre-visit medications and products that might help to calm or improve safety.

Pet owners should work with staff, trainers and resources that can guide the pet through desensitization and counterconditioning in advance of future visits based on the needs of the pet, the procedures, and the abilities and limitations of the owners and pets. Identify each stimulus that evokes fear to eliminate and avoid what might be negative and desensitize and countercondition to make them positive including, carrier, travel, veterinary facility, personnel, products (e.g. muzzles or head halters), instruments, and specific body parts (handling) and procedures (ears, eyes, injections) that will be the focus of treatment OR to be able to administer sedation. When counterconditioning is effective in a neutral environment, proceed to the fearful environment for happy, positive visits. Pre-visit nutraceuticals and pharmaceuticals (PVP) should be dispensed where needed.

Training of cues that are predictive of interactions and reward training of focused and relaxed behaviors can provide a foundation for communicating, achieving desirable outcomes, calming, distracting, maintaining focus, and rewarding throughout the visit. These might include touch (targeting), chin rest (with focus), check (investigating objects), and relaxing on a "bed" or "mat".

#### 3. MEDICATE

a) Pre-visit medications: For medications to be effective, they must be administered before the fearful event and at a dose, duration and frequency to reach peak effect. Test dose in advance to determine the best product or combination. Natural products might be used alone or combined with drugs. Pheromones (feline F3 and dog appeasing pheromone), classical or species modified music, aromatherapy, pressure wraps and supplements with alphacasozepine, I-theanine, melatonin, valerian, GABA or a calming probiotic may have help to reduce anxiety.

For mild to moderate fear and anxiety in dogs, trazodone, clonidine, benzodiazepines (e,g, alprazolam, diazepam, lorazepam), gabapentin, dexmedetomidine oromucosal gel or imepitoin might be effective for car ride anxiety and veterinary procedures. In cats, gabapentin, trazodone and benzodiazepines (e.g. lorazepam, alprazolam) can be effective.4,5 Buspirone might also be considered in dogs and cats although best to start a week or more in advance. If single products are not sufficiently effective combinations should be considered. For greater sedation in healthy, fractious pets, transmucosal acepromazine, dexmedetomidine or buprenorphine in cats might be effective. For more intense fear and anxiety a transmucosal combination of dexmedetomidine plus narcotic might be considered. Also administer medications for pain, nausea and gastrointestinal upset if needed.

#### b) Pain and anxiety – anxiety and pain

Pain management is essential for addressing welfare. Pain increases stress which further exacerbates pain and can condition fear of handling, stimuli and environments such as the veterinary hospital. Studies in humans have demonstrated that pre-operative fear and anxiety contributes to increased post-operative pain and slower recovery. Therefore, to prevent or alleviate FAS, pain management must be addressed, while to effectively manage pain, FAS must be addressed.

#### c) Injectable sedation

The greater the fear, anxiety or arousal, the more variable the response. Therefore, injections before the pet is stressed are safest, most effective and require the lowest dose. Injectable sedation addresses the health, welfare and safety of the pet, owner and veterinary team. An alpha 2 agonist such as dexmedetomidine can sedate, decrease the release of catecholamines, ACTH, and cortisol, and provide pain management. Dexmedetomidine should be avoided in pets with cardiovascular compromise due to the potential for vasoconstriction and hypertension. As levels of sedation with dexmedetomidine alone are variable, optimal and balanced sedation can best be achieved with low dose intramuscular dexmedetomidine combined with a narcotic such as butorphanol. Midazolam might be added as an anxiolytic, muscle relaxant, and potential amnesic (but might lead to paradoxical excitation). In place of butorphanol, buprenorphine might provide more analgesia but less sedation while mu agonists such as hydromorphone and morphine offer greater pain control and sedation and are reversible. Dexmedetomidine can be reversed with atipamezole for faster recovery. However, if the patient is not reversed, recovery may be smoother and less stressful. As an alternative to dexmedetomidine, acepromazine or alfaxalone might be substituted or added or added in). In more fractious patients or for greater chemical restraint, ketamine might be added.

In a recent study when manual restraint was compared to dexmedetomidine and butorphanol or dexmedetomidine alone, manual restraint required more personnel, and longer contact time, while the combination of dexmedetomidine and butorphanol required less (or no) restraint, less time and had the best behavioral and cooperative scores.5

Drug	Dogs	Cats
Trazodone	3-12 mg/kg	50-100 mg / cat
Clonidine	0.01-0.05 mg/kg	
Gabapentin	10-40 mg/kg	10-30 mg/kg (50-100 mg/cat)
Alprazolam	.02-0.1 mg/kg	.125 mg25 mg per cat
Diazepam	0.5-2.2 mg/kg	
Lorazepam	.02-0.1 mg/kg	.0525 mg/kg (0.25-0.5 mg/cat)
Imepitoin	20-30 mg/kg	
Dexedetomidine OMG	125 mcg/m <sup>2</sup>	

#### Doses for oral pre-medication

#### Doses for intramuscular sedation

Drug	Dogs	Cats
Butorphanol <sup>a</sup>	0.2 -0.4 mg/kg	0.2 -0.4 mg/kg
Dexmedetomidine <sup>b,c</sup>	0.00301 mg/kg	0.005015 mg/kg <sup>61</sup>
Midazolam <sup>d</sup>	.05-0.2 mg/kg	.05-0.2 mg/kg
Additional add-on sedation (f needed)		
Ketamine	1-3 mg/kg	1-5 mg/kg
Alfaxalone	0.5-1.0 mg/kg (small	0.5-2.0 mg/kg
	dogs)	

<sup>a</sup>Can substitute buprenorphine, morphine or hydromorphone

<sup>b)</sup> Can substitute acepromazine at 0.01 - 0.2 mg/kg in dogs and 0.03 -0.2 mg/cat in cats or alfaxalone at 5 mg/kg for cats

For geriatric or ill dogs and cats: Butorphanol 0.2 -0.4 mg/kg + midazolam 0.2 mg/kg

#### **Additional resources**

1. Fearfreepets.com; fearfreehappyhomes.com

2. Howell A, Feyrecilde M. Cooperative Veterinary Care, Wiley-Blackwell, 2018

3. Yin S. Low Stress Handling, Restraint and Behavior Modification in Dogs and Cats. 2009, CattleDog Publishing

#### References

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- 2. Mariti C, Bowen J, Campa S et al. Guardians' perception of cats' welfare and behavior regarding veterinary visits. J Appl Anim Welf Sci 2016, 19, 375-384
- 3. Stevens BJ, Frantz EM, Orlando JM et al. Efficacy of a single dose of trazodone hydrochloride given to cats prior to veterinary visits to reduce signs of transport- and examination-related anxiety. J Am Vet Med Assoc 2016; 249: 202-207
- 4. van Haaften KA, Eichstadt-Forseith LR, Stelow EA et al. Effects of a single preappointment dose of gabapentin on signs of stress in cats during transportation and veterinary examination. J Am Vet Med Assoc 2017; 251: 1175-1181
- 5. Barletta M, Raffe M. Behavioral response and cost comparison of manual versus pharmacological restraint protocols in healthy dogs. Can Vet J 2016; 57: 258-64