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# PRE-APPOINTMENT MEDICATIONS ADDRESSING FEAR AND ANXIETY RELATED TO VETERINARY VISITS, IN CATS – A REVIEW

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**Abstract:** This review concentrates on currently available pre-appointment medications used to prevent fear and anxiety associated with veterinary visits, in cats. A literature review identified seven potentially effective drugs in alleviating acute situational fear and anxiety in cats: tranquilizers/neuroleptics/antipsychotics class – acepromazine, anxiolytics class – alprazolam, atypical antidepressants class – trazodone and mirtazapine, antiepileptic/anticonvulsant class – gabapentin and pregabalin, and sympatholytic class – dexmedetomidine. The available data on the mechanism of action, interactions with other drugs, side effects, recommended use and dosage were reviewed and presented.

**Keywords:** pre-appointment medication, cats, fear, anxiety, veterinary settings

### •Introduction

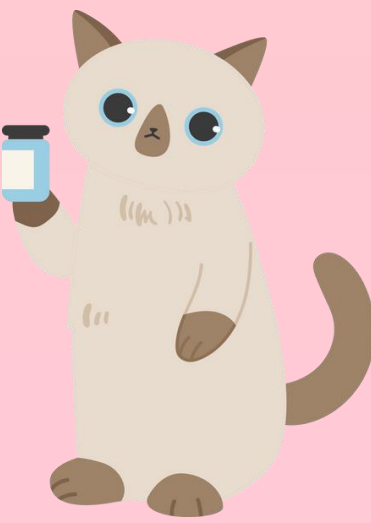
There is no doubt that cats have special needs when it comes to veterinary visits, and in most cases fear and anxiety set in. Some are stressed just by the presence of the transport cage, but for most the main stress is the transportation itself, followed by the consultation. This is why owners avoid regular check-ups, which can jeopardize the cat's health. Fortunately, there are ways to change this, by improving the experience for both the cat and the owner.

In addition to enriching the clinic environment for the cat's needs, which is very important to reduce stress, pre-appointment medications have been studied and developed. These can be very helpful in ensuring a smooth check-up, reducing the risk of injury to the cat and staff, facilitating the diagnosis and developing a relationship of trust between owner, cat and vet.

### •Results and discussions



|                     | Acepromazine                                        | Alprazolam                                                                                                                                    | Trazodone                                                                                                                                                                        | Mirtazapine                                                                     | Dexmedetomidine                                                                                                                                                                                                                                                           | Gabapentin                                                                                                                                                                               | Pregabalin                                                                                                                                                                                                                                                           |
|---------------------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Commercial products | Sedam 10mg                                          | Xanax, Niravam, CF-Flavazolam Oral Solution                                                                                                   | Desyrel, Oleptro, Trazodone                                                                                                                                                      | Remeron, Mirataz                                                                | Sileo(gel), Dexdomitor, Sedadex                                                                                                                                                                                                                                           | Gabapentin, Gabavet                                                                                                                                                                      | Bonqat                                                                                                                                                                                                                                                               |
| Class               | Tranquilizers/neuroleptics/antipsychotics           | Anxiolytics Benzodiazepine                                                                                                                    | Atypical antidepressants                                                                                                                                                         | Atypical antidepressants                                                        | Sympatholytic                                                                                                                                                                                                                                                             | Antiepileptic/anticonvulsant                                                                                                                                                             | Antiepileptic/anticonvulsant                                                                                                                                                                                                                                         |
| Dosage              | 1-3 mg/kg                                           | 0.125–0.25 mg/cat /12h                                                                                                                        | for short-term use<br>50 mg/cat po or<br>150 mg/cat transdermal                                                                                                                  | 1.9 mg/cat / 48h po or<br>2 mg/cat transdermal                                  | 2-10 mg/kg                                                                                                                                                                                                                                                                | 100 mg/ cat single use                                                                                                                                                                   | 5 mg/kg                                                                                                                                                                                                                                                              |
| Administration      | Oral<br>15-30 min before a fear-inducing event      | Oral<br>30-90 min before a fear-inducing event                                                                                                | Oral/ Transdermal<br>1 hour before travel                                                                                                                                        | Oral/ Transdermal<br>1-2 days before                                            | IV/IM/SC                                                                                                                                                                                                                                                                  | Oral<br>90 minutes prior to placing the cat into a carrier and transporting it to the veterinary                                                                                         | Oral<br>90 min before placing them into the carrier and transporting them in a car for at least 20 min to a veterinary clinic                                                                                                                                        |
| Use                 | Recent studies <b>no longer recommend using it.</b> | Most medications from this class are metabolised by the liver, except for alprazolam, therefore, is considered <b>a safe option</b> for cats. | A single use of transdermal trazodone is <b>effective and is easier</b> for the owner to manage. The medication is applied to the hairless part of the inner pinna of both ears. | The medication is applied to the hairless part of the inner pinna of both ears. | It is <b>not an advantageous choice</b> because of the <b>injectable formulations and sedative effects.</b> The commercial product Sileo , an oromucosal gel, is specifically designed for dogs, and studies show that its <b>effectiveness is insignificant in cats.</b> | Oral administration <b>reduces stress-related behaviors during transportation and Examination</b> , decreases aggression and increases compliance of cats during veterinary examination. | FDA approved pregabalin oral solution (Bonqat) in 2023 for <b>alleviating acute anxiety and fear associated with transportation and veterinary visits in cats.</b> This therapy is the first for use in animals containing pregabalin to receive the FDA's approval. |



### • Conclusions

The most effective pre-appointment medications for cats that are also the easiest for owners to administer are Trazodone, Mirtazapine (because they can be administered transdermal), Alprazolam and Pregabalin ( both being available in the form of oral solutions ). Acepromazine and Dexmedetomidine are not recommended, as their effectiveness is insignificant.

