



ESVCE
European Society of
Veterinary Clinical Ethology

ESVCE position statement on the use of medications to manage acute noise sensitivities in dogs as an alternative to acepromazine

• Use of acepromazine

Veterinarians are central to selecting and prescribing psychopharmacological agents for dogs presenting with acute fear-, anxiety- and phobia-related states, particularly during noise-related events. Despite considerable literature advising against the use of acepromazine for treating behaviour problems in dogs [1-4], it still persists as one of the psychoactive drugs prescribed to reduce behavioural manifestations of noise sensitivities. This continued use may partly reflect its historical recommendation as a treatment option for managing destructive behaviour and transport-related fear [5, 6]. However, the ESVCE strongly recommends the choice of an alternative psychopharmacological approach, as acepromazine lacks anxiolytic properties and is therefore inappropriate for managing acute fear, anxiety or phobic states [1].

Acepromazine is a phenothiazine that produces a therapeutic effect by blocking dopaminergic receptors [4]. This pharmacological action suppresses motor responses without reliably altering the animal's emotional and sensory experience – whilst at the outset it may appear to reduce an individual's reactivity, it does so without an anxiolytic effect. Consequently, the dog continues to perceive the fear/anxiety inducing stimuli without the ability to move away from it. The misuse of acepromazine in these cases can potentially increase sensitisation and worsen the

severity of the noise sensitivity [1, 2]. Acepromazine can potentially lead to paroxysmal arousal and behavioural disinhibition when used to solve aggressive behaviours [2]. Acepromazine should not be used as a treatment for acute fear, anxiety or phobic states in dogs because its sedative/tranquilising effects do not provide reliable anxiolysis. Acepromazine may still be considered for use as a premedication (prior to anaesthesia) in combination with other medications such as opioids and/or other agents to manage pain and/or anxiety before anaesthesia where there is no expectation or requirement of an anxiolytic effect from it [3, 7-13].

The ESVCE recommends that acepromazine should not be used to prevent/treat noise sensitivities, in line with the recommendations of other veterinary behaviourists and animal behaviour associations from different countries (e.g.: AVEC, AVEPA-GRETCA).

• **Alternative medication and treatment options**

Whilst psychopharmacological interventions are important for managing acute noise sensitivities, they should form part of a broader behaviour modification programme. Regarding noise sensitivities, current evidence-based veterinary guidelines recommend the following approach:

Immediate actions

- Use a psychopharmacological agent which is effective in producing a rapid anxiolytic effect in the individual;
- Identify the stimuli that trigger the response, and actively avoid or minimise the dog's exposure to such triggers;
- Create a safe area - a quiet, pleasant place that has been previously positively conditioned, where the dog has the choice to freely come and go from, and may eventually use as a coping mechanism whilst noise stimuli occur [14];

Longer-term treatment considerations

- Use behaviour modification techniques, including desensitisation and counterconditioning, to change the dog's emotional response to the noise.
- Encourage owners to implement environmental enrichment strategies to frequently promote positive emotions and adaptive behaviours [1];
- Consider the use of long-term psychopharmacological agents to reduce the phobic state and ongoing anxiety/fearful responses [1, 4, 15].

Licensed Medications for Acute Noise Sensitivities (EMA Approved Indications)

In recent years, the pharmacological landscape has evolved significantly. Several medications are now specifically licensed by the European Medicines Agency (EMA) for the treatment of noise sensitivities in dogs. Current clinical guidelines prioritise these approved, evidence-based options – please note the differences between approved indications across products:

- **Dexmedetomidine:** an alpha-2 adrenoceptor agonist formulated as an oromucosal gel for transmucosal absorption. Administered at sub-sedative doses, it acts on the locus coeruleus to blunt the sympathetic nervous system's response to stressors. It is authorised for “the alleviation of acute anxiety and fear associated with noise in dogs” and is licensed to be administered as soon as the dog shows the first signs of anxiety or when the trigger is detected [4, 16-18].
- **Imepitoin:** a low-affinity partial agonist for the GABA-A receptor available in tablet form. It is explicitly licensed for “the reduction of anxiety and fear associated with noise phobia in dogs”. For this approved indication, treatment is typically initiated 2 days prior to an anticipated noise event at a dose of 30 mg/kg BID [19-21].
- **Tasipimidine:** a novel, highly selective alpha-2A adrenoceptor agonist available as an oral solution. It inhibits the release of noradrenaline in the central nervous system, effectively counteracting physiological arousal and blocking the startle reflex. It is licensed for “the short term alleviation of situational anxiety and fear in dogs triggered by noise” (and owner departure), and is administered one hour before the expected stimulus at a dose of 30 µg/kg [22, 23].

Emerging and Off-Label Evidence (Case-by-case Adjunctive Use)

Furthermore, current veterinary behavioural literature supports the case-by-case off-label use of selected adjunctive agents when authorised products are contraindicated, unavailable, or insufficient on their own. These include:

- **Benzodiazepines (e.g., alprazolam):** GABAergic agents that may be used off-label for rapid anxiolytic support in selected cases [24].
- **Trazodone:** a Serotonin Antagonist and Reuptake Inhibitor (SARI) frequently used off-label to manage acute anxiety spikes [25].
- **Clonidine:** an alpha-2 adrenergic agonist utilised off-label to manage extreme hyperarousal and panic [26].

- **Gabapentin:** a calcium channel blocker and analogue of the neurotransmitter GABA, widely used in situational fear protocols including noise phobia, particularly if there is a suspected pain component amplifying the noise sensitivity [4, 27].

Drug choice should be individualised according to comorbidities, concurrent medication, degree of arousal, anticipated timing of the trigger, and whether the dog may be left alone after dosing.

When a behaviour problem is identified or suspected, veterinarians should offer referral to a qualified Veterinary behaviour specialist if such services are not provided within the practice, in order to correctly identify the problem and to begin effective treatment as soon as possible.

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