



APBC

ASSOCIATION OF PET
BEHAVIOUR COUNSELLORS

Association of Pet Behaviour Counsellors
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Psychoactive Medication For Dogs And Cats – Brief Information

Psychoactive medications are chemical substances that change nervous system function, resulting in alterations in perception, mood, consciousness, cognition, or behaviour (www.who.int)

If an animal is presenting with panic, fear, anxiety, or compulsive disorders then psychoactive medication may be appropriate to help the animal cope – as part of an overall behavioural plan. Psychoactive medication may be needed in behavioural cases where:

- **The stimulus is unavoidable or unpredictable**
- **The response is disproportionate to stimulus**
- **Quality of life/ welfare of the animal is starting to be affected**
- **Human: Animal bond affected**
- **To aid behaviour modification**

Like with any clinical case, the animals physical health should be examined and any possible contributing physical factors to behaviour should be ruled out (e.g. full clinical examination, history taking and any clinical work up performed first). Up to 80% of animal's presenting with a 'problem behaviour' are suffering pain (Mills et al., 2020).

It is then important to decide if we need long term medications or short-term ones. Long term medications may be appropriate if the stimulus is not avoidable, present frequently or not predictably.

All anti-anxiety medications can have side effects – these can include an increase in anxiety (and possibly aggression). This is not common, but possible.

Products licensed for use in animals include the trade name after, the rest constitute off label use.

The BSAVA Small Animal Formulary or similar texts detail more information on the drugs listed, or the manufacturers can be contacted directly. This basic information for guidance only. The APBC is not responsible for medication use or any related adverse effects. As stated in 'APBC – What constitutes a Referral' document (18 MAY 2023) (points 19-21) APBC non-vet CAB members may suggest the use of medication to the referring vet as part of case discussions. In line with the Veterinary Surgeons Act, they may discuss, but not advise, with regards to specific classes of drugs or individual medications.

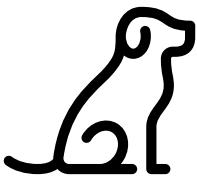
Responsibility for the choice and dosage of medication must remain with the prescribing veterinary surgeon. There are side effects, drug interactions and contraindications that can affect medication choice and should therefore be considered alongside full knowledge of the patient's clinical history.

Slow Acting (Longer Term) Behaviour Modifying Medications Used in Dogs And Cats.

Serotonin Specific Re-uptake Inhibitors (SSRIs)

These medications work to block the re-uptake of serotonin in the brain – therefore increasing the levels the brain can use. The most frequently used in Veterinary Medicine is **FLUOXETINE – Reconcile® (Forte Healthcare)**.

This may take 4-8 weeks to reach clinical efficacy.



DOGS

The authors suggest a lower starting dose at 0.5mg/kg once a day for seven days, then at 1mg/kg SID ongoing. Rarely the dose can be increased to 2mg/kg SID if required.



CATS

The authors suggest a lower starting dose at 0.25mg/kg once a day for seven days, then dosed at 0.5mg/kg once a day ongoing. The dose can be increased to 1mg/kg SID if needed.

Other SSRIs are sometimes used (off license) e.g. Sertraline, Paroxetine etc.

Tricyclic Antidepressants (TCAs)

These medications work to block the re-uptake of serotonin and depending on which one you are using, they can also have nor-adrenergic, anti-cholinergic and anti-histaminic effects.

These can take 4-8 weeks to reach clinical efficacy.

The most frequently used Tri-cyclic Antidepressant is **CLOMIPRAMINE – Clomicalm™ (Elanco)**.



DOGS

0.5mg/kg twice a day for a week-increased to 1-2mg/kg BID ongoing.



CATS

0.25mg/kg once a day for 7 days, increased to 0.5-1mg/kg SID ongoing.

Other TCAs used (off license) include Amitriptyline, Doxepin and Mirtazapine.

Monoamine Oxidase Inhibitors (MAOIs)

These medications inhibit Monoamine Oxidase (depending on the medication either MAOA or MAOB). They work to reduce the breakdown of serotonin, dopamine, noradrenaline, tyramine, and phenethylamine.

SELEGILINE – Selgian® (CEVA) – At lower doses, Selegiline is a MAOB inhibitor. It also appears to have some neuroprotective properties and so may have a place in the management of canine cognitive dysfunction.



DOGS

0.5-1mg/kg SID.



CATS

1mg/kg SID.

Switching Between Drugs – “Drug Free” Period or “Wash Out” Period

Special care must be taken when using an MAOI and combining with other medications. A wash out (drug free period) must be left when switching from a MAOI and a TCA/ SSRI to avoid potentially fatal serotonin syndrome.

A drug free period may also be needed when switching within classes (e.g. from one SSRI to another) or between drugs of different classes (e.g. switching from an SSRI to a TCA). Further information can be found in formularies.

Faster Acting Behaviour Modifying Medications

The medications below are much faster acting. They are often used 'as needed' or in combination with the above longer to take effect medications. Always double check drug interactions prior to combining psychoactive medications.

IMEPITOIN - Pexion® (Boehringer Ingelheim)

Imepitoin potentiates GABA_A and has a weak calcium channel blocking effect. Is often used short term (e.g. for noise events) but can also be used longer term.



DOGS

10-30mg/kg BID. Anecdotally doses at the higher end of the dose range may be more effective.

Trazodone (SARIs)

Trazodone has a dose dependent mechanism of action. Depending on the dose, it works to block serotonin 2_A receptors, as well as histamine H₁ receptors and alpha₁ adrenergic receptors. At slightly higher dose, it blockades the SERT (serotonin transporter) system and so also works to further increase serotonin levels. Care should be taken when combining with other serotonergic medications.



DOGS

Short term (e.g. hospitalisation) starting dose 4mg/kg BID titrated up to 10mg/kg. Longer term 2-3mg/kg BID titrated up to effect.



CATS

Short term usage 50-100mg/CAT/day. Usually dosed 1-2 hours before a stressful event.

Alpha 2 Agonists

These medications are agonists at peripheral and central alpha – 2 adrenoceptors. Depending on the dose, they provide sedation, muscle relaxation, anxiolysis and analgesia.

DEXMEDETOMIDINE – Sileo® (Pfizer).

Sileo is licensed for use in noise phobias. It is an oral gel and is applied on the patient's gums. Care with patient selection – this should not be used in dogs who are fearful of handling of their head/mouth or those with painful head/neck conditions (as application in these cases can be aversive).



DOGS

125micrograms / m² applied to the oral mucosa 30-60mins before the stressful event. This can be repeated after 2-3 hours for a maximum of 5 applications.

Other useful (not licensed) alpha 2 agonists include Clonidine.

Benzodiazepines

The benzodiazepines potentiate GABA by binding to the GABA_A receptor. At lower doses they are anxiolytic, hypnotic, muscle relaxants and anti-convulsant. At higher levels, they may also provide some amnesic effects – which can occasionally be useful in practice. These medications can cause physical dependence when used long term.

ALPRAZOLAM



DOGS

0.01-0.1mg/kg PO q 6 hours.



CATS

0.125-0.25mg/kg PO BID.

DIAZEPAM



DOGS

0.5-2.0mg/kg PO BID – TID.



CATS

(care hepatic necrosis has been linked to oral diazepam in cats) 0.2-0.4mg/kg TID.

Other benzodiazepines frequently used are Lorazepam and Midazolam.

Gabapentin (Schedule 3)

The precise mechanism of action of Gabapentin is not known. It seems to potentiate GABA but does not bind to the GABA receptors to seem to alter its uptake or release. Its main use is for neuropathic pain, however, it also has a place in anxiety management (usually as an adjunct), especially in cases where neuropathic pain may be present.



DOGS

10-20mg/kg PO TID.
Higher doses (20-30mg/kg PO may be used as a 'one off' as needed e.g. for vet visits when combined with e.g. trazodone).



CATS

5-10mg/kg BID – TID.
Higher doses (50-100mg/CAT may be used as a 'one off' e.g. for vet visits).

References & Further Reading

www.who.int

Mills, D.S., Demontigny-Bédard, I., Gruen, M., Klinck, M.P., McPeake, K.J., Barcelos, A.M., Hewison, L., Van Haevermaet, H., Denenberg, S., Hauser, H. and Koch, C., 2020. Pain and problem behavior in cats and dogs. *Animals*, 10(2), p.318.

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Warnes, C., Brown, E. and Durston, T., 2022. The use of behaviourally-active medication in companion animals: part 1. *The Veterinary Nurse*, 13(3), pp.124-132.

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Withdrawal of Psychoactive Medications

Protocols for medication withdrawal should be considered on a case-by-case basis and can depend on a number of factors including the class of drug and length of time the patient has been on the medication.

Shorter-acting meds (event medication given on a short term or occasional basis) can often be more easily/quickly withdrawn due to the nature of their action, often without any dose reduction.

Longer action medications should not be stopped suddenly, and a dose reduction protocol is usually recommended. Consideration can also be given to finding the lowest effective dose for the animal, not necessarily a complete drug withdrawal.

A wash out (i.e. drug free period) should be allowed before switching between drug classes.

Disclaimer: As with any prescription medication, always check the formulary or contact the manufacturer for further information. Doses have been sourced from the BSAVA Small Animal Formulary and the Veterinary Information Network. This is a basic advice sheet - the APBC is not responsible for adverse effects and medication use, dose, adverse effects and drug interactions remain the responsibility of the prescribing Veterinarian.

This information document was written by APBC members who are ABTC-VB (Veterinary Behaviourists)