

(arranged alphabetically, not in order of suggested use)

Drug	Class & Action	Dosage*	Side Effects	Warnings	Notes
ACEPROMAZINE (use in combination with anxiolytics)	Phenothiazine; sedative/ tranquilizer	Depends on other drugs in combination <b>Dog/cat:</b> 0.5-2mg/kg PO	Increased aggression, increased noise responsiveness	Possible increased aggression, long duration of sedation, not reversible, unpredictable results	Not recommended as a single-drug agent; use in combination with anxiolytic drugs for adjunctive sedation
ALPRAZOLAM	GABA agonist: Anxiolytic, appetite stimulant, panicolytic effects in humans	<b>Dog</b> : 0.02-0.1mg/kg/dose PO <b>Cat</b> : 0.125-0.25mg/CAT (not/kg) PO. Administer 30-60 min before need	Ataxia, polyphagia, paradoxical excitation	Possible behavioral disinhibition	Metabolized by hydroxylation – may reduce potential for liver toxicity in cats; test dose in advance of need
CLONIDINE	Alpha-2 agonist: inhibits noradrenergic activity	<b>Dog</b> : 0.01-0.05mg/kg/dose PO; administer 1.5 hours before need. *Avoid or use caution combining multiple alpha-2 agonists, as this may exaggerate sedation and recovery.	Sedation, ataxia, vomiting, constipation	Dose/efficacy not established in cats; caution in patients with cardiovascular disease, seizure predisposition	Can be used in combination with other anxiolytic drugs
DEXMEDETOMIDINE OROMUCOSAL GEL	Alpha-2 agonist; inhibits noradrenergic activity	<b>Dog</b> : 125-250 mcg/m <sup>2</sup> Administered OTM 30-60 min before need (on label for dogs only) *Avoid or use caution combining alpha-2 agonists	Pale mucous membranes, possible emesis or sedation	Caution in patients with cardiovascular disease, seizure predisposition	FDA approved for noise aversion in dogs. Positively condition dog to the dosing syringe in advance of need.

\*Individual variability: Pre-visit test dosing recommended to verify time to onset, dose, effect, duration of effect, and any possible adverse effects to ensure that drugs can be given sufficiently in advance of visit to achieve peak effect.



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DIAZEPAM	GABA agonist: Anxiolytic, appetite stimulant	<b>Dog only</b> : 0.5-2.0mg/kg/dose PO; Administer 30-60 min before need.	Ataxia; polyphagia, paradoxical excitation; may be increased activity at higher doses	Avoid in cats due to potential hepatotoxicity. Possible behavioral disinhibition	Metabolized rapidly; variable response among individuals
GABAPENTIN	Anticonvulsant: Neuropathic pain/analgesia; calming/sedation at higher doses; anxiolytic	<b>Dog</b> : 10-50mg/kg/dose PO <b>Cat</b> : 10-40mg/kg/dose or 50-200mg/CAT (not/kg) Administer 1-2 hours before need.	Dose related ataxia/sedation; May intensify sedation from other drugs		Combines well with other drugs; for maximum sedation give a loading dose the night before
IMEPITOIN	Anticonvulsant, partial GABA agonist: Appetite stimulant, Anxiolytic	<b>Dog</b> : 30mg/kg PO BID. Administer twice daily for 2 days before need.	Ataxia, polyphagia, vomiting/diarrhea, lethargy, paradoxical excitation	Possible behavioral disinhibition; Avoid in dogs less than 5 kg or with severely impaired liver, kidney or heart function	FDA approved for noise aversion in dogs.
LORAZEPAM	GABA agonist: Anxiolytic, appetite stimulant	Dog: 0.02-0.1mg/kg/dose PO (up to 0.5 mg/kg/dose). Administer 45-60 min before need. Cat: 0.25-0.5 mg/CAT (not/kg) PO BID. Administer the night before and morning before need.	Ataxia; polyphagia, paradoxical excitation	Possible behavioral disinhibition	No active intermediate metabolite – safer for hepatic and geriatric patients

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MAROPITANT (oral tablets)	Quinuclidine class: neurokinin- 1 (NK1) receptor antagonist: antiemetic	Dog: 2mg/kg, up to 8 mg/kg for motion sickness Cat: 1-2 mg/kg Administer 2 hours prior to travel	Possible vomiting (from 8 mg/kg on empty stomach), mild lethargy, excessive salivation, diarrhea	May produce some sedation	Side effects are uncommon and more likely to occur with repeated administration of the 8mg/kg dose. FDA approved for vomiting in dogs, cats.
MIRTAZAPINE	Alpha-2a Antagonist/ Serotonergic: Appetite stimulant, Anxiolytic, Antiemetic, Sedative	Dog: 0.5-1mg/kg/dose PO. Cat: 1.88mg/CAT (not/kg) PO or 2mg/CAT (not/kg) TD. Administer 1-2 hours before need	Vocalization, hyperactivity, vomiting, topical - application site reactions	Caution when combining with other serotonergic agents. Avoid with MAOIs. Mirtazapine blocks the hypotensive effects of alpha 2 agonists. Possible behavioral disinhibition	Caution with nephrotic or hepatic disease
PREGABALIN	Anticonvulsant: Neuropathic pain/analgesia; calming/sedation at higher doses; anxiolytic	<b>Dog</b> : 2-5mg/kg/dose PO. Administer 2-3 hours before need. <b>Cat</b> : 1-5mg/kg/dose PO. Administer 90 min. before need.	Dose-related ataxia/sedation; May intensify sedation from other drugs		More potent and may be better tolerated than gabapentin in some patients
TRAZODONE	SARI: Anxiolytic, sedation	Dog: 3.0- 10.0mg/kg/dose PO (max dose of 300mg) Cat: 50-100mg/CAT (not/kg); Administer 2-3 hours before need	Sleepiness; paradoxical excitation; mild Gl effects; 3 <sup>rd</sup> eyelid protrusion in cats	Caution when combining with other serotonergic agents. Avoid with MAOIs.	4+ hours duration; compatible with injectable sedation; for dogs, consider dose night before

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### **Examples of PVP combinations**

Species	Example combination
Dogs	Benzodiazepine added to trazodone, clonidine, or gabapentin or pregabalin
Dogs	Clonidine or dexmedetomidine added to a benzodiazepine, trazodone, or gabapentin or pregabalin
Dogs	Pheromones, alpha casozepine, I-theanine, or melatonin with a single PVP or combination
Cats	Benzodiazepine added to trazodone or gabapentin or pregabalin
Cats	Trazodone added to gabapentin or pregabalin
Cats	Pheromones, alpha casozepine, I-theanine, or melatonin with a single PVP or combination

#### When additional sedation is needed

Species	Example combination
Dogs	Add acepromazine at 0.5-2.0mg/kg or phenobarbital at 5.0-10.0mg/kg (Can be combined with anxiolytic options such as gabapentin or pregabalin, benzodiazepines, trazodone and complementary products such as melatonin and l-theanine
Cats	Add acepromazine at 0.5-2.0 mg/kg OR phenobarbital at 5.0-10.0 mg/kg to gabapentin or pregabalin or benzodiazepines
Both	Note: When combining medications, doses at the lower end of the range should initially be used.



### Transmucosals/transmucosal combinations (for healthy pets)

Species	Example combination	Dosage
Dogs	Dexmedetomidine alone	10.0-40.0 mcg/kg
Dogs	Dexmedetomidine + morphine	10.0-40.0 mcg/kg dexmedetomidine + 1.0 mg/kg morphine
Dogs	Dexmedetomidine + buprenorphine	10.0-40.0 mcg/kg dexmedetomidine + 0.02-0.05 mg/kg buprenorphine
Dogs	Dexmedetomidine + methadone	10.0-40.0 mcg/kg dexmedetomidine + 0.75 mg/kg methadone
Dogs	Dexmedetomidine oromucosal gel	125-250 mcg/m <sup>2</sup>
Cats	Dexmedetomidine alone	20.0-40.0 mcg/kg
Cats	Dexmedetomidine+ Buprenorphine	Dexmedetomidine 20-0-40.0 mcg/kg + Buprenorphine 0.02-0.05mg/kg
Cats	Dexmedetomidine + methadone	Dexmedetomidine 20-0-40.0 mcg/kg + methadone 0.75mg/kg
Cats	Buprenorphine + acepromazine	Buprenorphine 0.02-0.05mg/kg + acepromazine 0.01-0.05 mg/kg
Cats	OTM ketamine	10.0mg/kg

- Administer transmucosal medications 30-60 mins in advance of event
- To facilitate administration and slow transmucosal absorption, administer with molasses, peanut butter, maple syrup or honey
- Hospital must consider client and policy on dispensing controlled drugs
- Each choice above is for individual usage. Do not combine.



### **Pharmaceutical Use and Owner Consent**

Not all of the drugs in these charts are FDA-approved for use in dogs and cats. Drugs like the alpha-2 agonists and acepromazine are often used at **lower** than the FDA-approved dose as profound sedation is not always necessary. However, all of the dosages in this chart are commonly used in practice and are referenced in the veterinary literature.

The AVMA Policy on Owner Consent states that veterinarians or staff should provide sufficient information in a form and manner that enables owners or their authorized agents to make appropriate decisions when choosing the veterinary care provided. An assessment of risks and benefits of recommended treatments should be provided. In response owners or their authorized agents should indicate:

- Their questions have been answered to their satisfaction
- The information received by them has been understood
- They are consenting to the recommended treatments

The consent can be verbal or written and should be documented in the medical record by the veterinarian or staff member. Taken from the AVMA Policy on Owner Consent in Veterinary Medicine. You should review the complete policy here: <a href="https://www.avma.org/KB/Policies/Pages/Owner-Consent-in-Veterinary-Medicine.aspx">https://www.avma.org/KB/Policies/Pages/Owner-Consent-in-Veterinary-Medicine.aspx</a>