# Alprazolam

## **BRAND NAME: XANAX**

AVAILABLE IN 0.25 mg, 0.5 mg, 1 mg, 2 mg, 3 mg TABLETS and ORAL SUSPENSION

#### BACKGROUND

Alprazolam, like diazepam (valium<sup>®</sup>), its more famous cousin, is a benzodiazepine tranquilizer. It works by depressing activity in several areas of the brain which leads to several desired effects. It works as an anti-anxiety treatment, as a sedative, as a suppressor of seizure activity, and as a muscle relaxer. The exact mechanism for creating these effects remains unknown. Alprazolam represents an improvement on the original diazepam in that it lasts longer (in dogs, unknown in cats) making it more practical than diazepam for oral use.

### HOW THIS MEDICATION IS USED

The most common veterinary use for this medication is probably the treatment of panic disorders in dogs. Panic disorders differ from other forms of anxiety in that they have a more acute basis and seem to be associated with loud noise stimuli (like fireworks or thunderstorms). Typically a single dose of alprazolam could relax a dog on the evening of the fourth of July or during a single storm and on-going medication would not be needed to see an effect (other anti-anxiety medications require weeks of use for results and would not be helpful in these types of short term unique situations). For use in noise phobia situations, alprazolam should be given 30-60 minutes before the triggering event is expected. Alprazolam is frequently used to "tide a patient over" during the several week period until one of the aforementioned anti-anxiety medications takes effect.

Other uses might include anxiety disorders in cats such as with inappropriate elimination.

Alprozolam is also sometimes used to supplement seizure control medications such as phenobarbital when one medication alone is inadequate.

Alprazolam seems to exert its maximum effect within 1-2 hours.

Alprazolam may be given with or without food. Store alprazolam at room temperature, away from light.

If a dose of alprazolam is skipped, do not double up on the next dose. That said, sometimes additional doses are needed to achieve the desired effect. Be sure you understand instructions for extra doses if they appear to be needed.

#### **SIDE EFFECTS**

Sedation is a possible side effect.

The liver issues that have been problematic with diazepam in cats are not issues with alprazolam.

Benzodiazepines can cause an increase in hunger.

Benzodiazepines can interfere with learning thereby making training more difficult.

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There has been some concern about "disinhibition" with alprazolam in aggressive animals. If anxiety is inhibiting a patient from being more aggressive, relieving the anxiety could potentially embolden the patient into worse aggression. Whether or not this is a genuine risk with alprazolam remains controversial. Some paradoxic reactions are periodically reported. however, where, instead of tranquilization a patient will experience excitement.

## INTERACTIONS WITH OTHER DRUGS

Alprazolam may have a stronger than expected effect if used in conjunction with cimetidine (an antacid more commonly known as Tagamet<sup>®</sup>), erythromycin (an antibiotic), ketoconazole (an antifungal drug), itraconazole (another antifungal drug), other anxiety medications (such as fluoxetine, clomipramine, or amitriptyline) or propranolol (a heart medication).

Antacids may slow the onset of effect of alprazolam. If possible separate administration of these medications by 2 hours or more.

Benzodiapines should not be used with carbonic anhydrase inhibitor diuretics (common oral treatment for glaucoma) because of respiratory consequences.

Concurrent use of alprazolam with medications used for high blood pressure can lead to an excessive drop in blood pressure.

Concurrent use of alprazolam with theophylline can decrease the effectiveness of alprazolam but withdrawal of theophylline suddenly can increase the effectiveness of alprazolam and potentially cause toxicity.

The use of alprazolam may increase the effect of digoxin (a heart medication).

## **CONCERNS AND CAUTIONS**

- This medication should be stored at room temperature and protected from light.
- Liver disease can prolong the activity of alprazolam. Alprazolam should be used with caution or not at all in patients with liver or kidney insufficiency.
- Because of "disinhibition" concerns as noted above, be watchful of the pet's behavior with people and with other animals when starting alprazolam for the first time.

#### DO NOT ADMINISTER A PET'S FIRST DOSE EVER OF ALPRAZOLAM AND THEN LEAVE HIM UNSUPERVISED. ALWAYS SUPERVISE A TEST DOSE TO BE SURE PETS ARE NOT **OVER-TRANQUILIZED OR AGGRESSIVE WITH ONE ANOTHER.**

- Discontinuing alprazolam therapy abruptly after long term use may lead to unpleasant withdrawal symptoms similar to those that occur in humans.
- Alprazolam should not be used in early pregnancy; birth defects have been reported.
- Alprazolam also crosses readily into the milk of nursing mothers and may tranquilize nursing young. Alprazolam should thus not be used in nursing mothers.

ALPRAZOLAM IS A CONTROLLED SUBSTANCE AND SPECIAL RECORDS MUST BE KEPT **BY DOCTORS PRESCRIBING IT.** 

Mar Vista Animal Medical Center

Additional drug and general pet care information can be found on our world wide web site: http://www.marvistavet.com

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