

# Metropolitan Veterinary Hospital

## Akron Veterinary Internal Medicine/Oncology Practice

1053 S. Cleveland-Massillon Road Akron, OH 44321 Phone: 330-666-2976 or 330-670-2351

### Potassium Bromide

Client Handout

#### **NO BRAND NAME (see below)**

Available as a powder mixed in water at a strength of 250 mg/cc

#### **BACKGROUND**

Potassium bromide is not a licensed medication in the United States and special approval from the FDA must be given if it is to be used. In older times, bromides were indeed licensed and used routinely for treating seizure disorders in humans; however, when phenobarbital was introduced bromides were completely eclipsed. It soon became unprofitable to continue the FDA registration for bromides and the manufacture of bromides became relegated to chemical companies only.

The problem is that in veterinary medicine, potassium bromide is a far superior anticonvulsant medication than phenobarbital. It seems to be more effective and have fewer undesirable side effects.

Potassium bromide works by competing with chloride ions for access to brain tissues. As bromide levels in the brain rise and chloride levels drop, electrical activity in the central nervous system is inhibited, making the initiation of a seizure difficult.

#### **HOW THIS MEDICATION IS USED**

This medication is generally reserved for dogs who cannot tolerate phenobarbital for seizures control due to unacceptable side effects or lack of effectiveness. It is generally mixed in water and provided as a liquid solution.

When potassium bromide therapy is initiated in a patient it is common to begin with a loading dose, which is a very high dose given for a short period of time to get the blood level up more quickly.

#### **SIDE EFFECTS**

Some nausea is associated with the administration of potassium bromide. Giving the medication with food generally controls this.

Since potassium bromide is a salt, excess thirst and urination can be observed with this medication.

Drowsiness or grogginess, which can be marked, is not abnormal during a loading period when potassium bromide therapy is started. It is important not to give more potassium bromide to a groggy pet even if another dose is due.

In human beings, a toxicity syndrome called bromism results when blood bromide levels become too high. Symptoms reported include: drowsiness, weakness, muscle tremors and soreness, appetite loss, and constipation as well as skin rashes. For this reason bromide levels are monitored periodically. A similar syndrome can occur in dogs if bromide levels become too high.

Dogs with a history of pancreatitis may experience an exacerbation if potassium bromide is used to treat a seizure disorder.

#### **INTERACTIONS WITH OTHER DRUGS**

The use of potassium bromide as a sole seizure control agent is currently under investigation. For now, our recommendation is to continue the use of phenobarbital concurrently with potassium bromide. Typically the use of potassium bromide allows for a reduction of phenobarbital use by 30% to 50%, which is usually enough to alleviate negative phenobarbital side effects.

#### **CONCERNS AND CAUTIONS**

The administration of potassium bromide interferes with laboratory measurement of chloride, thus any tests for chloride will be falsely elevated.

Potassium bromide should be given with food.