

Monitoring the Epileptic Patient

Pets that have been diagnosed with epilepsy are usually prescribed one or more medications to prevent convulsions or seizures. These medicines, called *anticonvulsants*, are often needed for long periods of time, and in many cases are used for the life of the pet. Careful monitoring of these epileptic pets is necessary, first of all to make sure the medicine is being effective, and also to ensure there are no problems caused by the long term use of the medication.

What is involved in monitoring my epileptic pet?

Monitoring involves a series of simple blood tests that measure the level of anticonvulsant medication in the blood stream. The results of a blood test may indicate that the dose of medication is too high or too low, at which point the dose will be corrected. After a trial period at the new dose, a follow up test will be done to see if further adjustment in the dosage is needed. The objective is to achieve and maintain medication levels in the blood that fall within specified limits, called the *therapeutic range*. If blood levels are within the therapeutic range, then the expectation is that seizures will be controlled.



How many blood tests are needed?

In the newly diagnosed epileptic pet, frequent blood testing may be needed to get the dose of anticonvulsant “just right”. Once the correct dose of medicine has been established, and the pet appears stable, then testing every three to six months may be all that is needed; the longer the pet is on medication without seizures or complications, the fewer tests will be needed. Annual testing may be adequate for some patients.

How long will it take for my pet to stabilize on anticonvulsant medication?

During the initial period of medication, blood levels of anticonvulsant gradually rise, eventually reaching a steady state or state of equilibrium. The time needed to stabilize varies with the individual pet, and also with the anticonvulsant being used. Some medications require a few weeks to achieve equilibrium, while others may take up to four months. During this initial period, adjustments to the dosage need to be made carefully.

Are other blood tests required?

Long term medication with some anticonvulsants can damage the liver, and sometimes the bone marrow. Periodic blood testing is recommended to assess the effects of medication on the rest of the body. A complete blood count and biochemistry profile are usually performed for this purpose (see handout on *Wellness Testing*).

Are there things I should be watching for now that my pet is on medication?

The most important thing to report is if your pet has a seizure while on medication. This may indicate that the dose of medication is not high enough, or that the frequency of medication needs to be adjusted.

Mild signs of drowsiness or restlessness may occur initially as the pet adjusts to the effects of the medication, but more serious signs such as severe drowsiness, staggering, lethargy, and lack of energy, as well as vomiting and loss of appetite should be reported to your veterinarian. These are signs that may indicate the level of medication is too high.

Is there anything I should do to prepare my pet for blood testing?

a) The most important thing is to give medication regularly and consistently, following the veterinarian's instructions closely. This will ensure that the value reported on the blood test is accurate and representative.

b) For some anticonvulsants, such as phenobarbital, it is important to collect the blood sample at a specific time following administration of the pill; therefore, you need to be able to tell the veterinarian when you normally give the medication so the proper appointment time can be booked for you.

c) As for any blood test, it is always a good idea to avoid feeding your pet just before blood collection. Withholding food (water is permitted) for 4-6 hours prior to testing is usually well-tolerated by most animals.