



Therapeutic Drug Monitoring

The importance of diagnostic testing while under special medications.

Today, many of the same medications available to people are also available to our pets. This represents a tremendous advancement in the quality of care veterinarians can provide to companion animals, and is one of the key reasons why our pets are living longer and healthier lives.

Just as in people, however, these medications need to be monitored carefully in order to ensure maximum effectiveness and safety. The success of your pet's therapy – his or her health, happiness and comfort – depends on making sure the medications are working as they are intended. Therapeutic Drug Monitoring (TDM) provides your veterinarians with the information needed to closely follow your pet's therapy through regular, routine laboratory testing.

In addition to any physical examinations required by your veterinarian, a TDM program generally consists of two types of laboratory tests:

Serum Drug Concentrations – This test measures the amount of medication in your pet's blood.

Health Evaluation Panels – These tests monitor any effects of the medication on your pet's internal organs and body systems.

Frequently Asked Questions about TDM

What is Therapeutic Drug Monitoring (TDM)?

TDM is monitoring the level of medication in your pet's body. Just as in people, drug levels need to be monitored on a regular basis to make sure that the medication is at effective levels, while at the same time safeguarding him or her as much as possible from the risk of any potential side effects.

Why is TDM Important?

TDM is very important for any pet that has been prescribed a long-term medication. Monitoring our pet's reaction to a medication over time is the safest way to make sure he or she is receiving the proper dose. Just as in people, each pet will metabolize a drug differently. By monitoring the levels of the drug in the blood stream, as well as the function of various body systems, your veterinarian can adapt a drug dosage to suit your pet's age, size, breed, and physical condition. Over time, your pet may need more or less of a given drug, but the only way to know for certain is through regular monitoring.

Can veterinarian-prescribed medications harm my pet?

Veterinary drugs are subject to the same safety guidelines as human drugs. As with any medication, however, there can be some risks. If your veterinarian has prescribed a medication, it means that your pet's need for the drug in order to keep him or her healthy and comfortable outweighs the risk of any potential side effects. Properly following your veterinarian's prescribing instructions as well as any recommendations regarding ongoing drug monitoring will minimize those risks.

How can I help make my pet's drug therapy successful?

By closely following your veterinarian's instructions regarding dosing as well as by watching your pet closely and immediately reporting changes of any kind in your pet's appearance or attitude to your veterinarian.

How often should my pet be monitored?

Depending on the medication, it is typically recommended that you test prior to putting your pet on therapy, **2-4 weeks** following the start of the medication, and every **6 months** thereafter.

In monitoring the effect medications may have on your pet's internal system, it is important to assess the following:



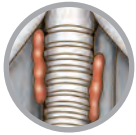
Liver

Many medications are metabolized in the liver and some cause liver damage if not properly monitored. Because of this, your veterinarian will want to perform a simple blood test that will analyze the various liver enzymes in order to detect any damage before it can become a serious problem.



Kidney

Some medications are excreted through the kidneys and others may cause changes in the kidney function. Simple blood tests can assess the health and function of your pet's kidneys.



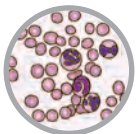
Thyroid

With hypothyroidism (common in dogs) and with hyperthyroidism (common in cats) monitoring the thyroid level is important to ensure thyroid levels are normal. Periodically, dosage adjustments may be needed to maintain normal thyroid levels.



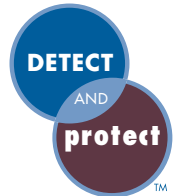
Urinalysis

A urinalysis along with serum tests for kidney function are the best way to detect early changes in kidney function. Taking medication long term may affect kidney performance and early detection of such problems is why we do TDM; all to improve both the efficacy and safety of long-term medications.



Complete Blood Count (CBC)

This test screens for the presence of anemia, infection, low platelet count and the overall healthiness of your pet's blood cells. Checking the numbers and physical appearance of white blood cells (which help fight infection), red blood cells (which carry oxygen to the tissues), and platelets (which assist in blood clotting) can give your veterinarian important clues about the health of your pet as well as the effect of therapy.





Monitoring Recommendations

Pet's Name

is on the following medication:

Prescription Name

Your pet's next appointment is on:

Date

You should follow-up with your veterinarian to monitor your pet's medication every _____ months.

Please call your veterinarian immediately if your pet shows any abnormal behavior such as depression or restlessness, or symptoms such as change in drinking or urinating, change in appetite, diarrhea or vomiting.

ANTECH[®]
D I A G N O S T I C S

© 2010 ANTECH Diagnostics.