



# Chemotherapy:

## What Pet Owners Need to Know

### **What is Chemotherapy?**

The goal of chemotherapy in veterinary oncology is to extend and improve the quality of life for your pet. Chemotherapy is the treatment of cancer with anticancer drugs. Chemotherapy is a word that creates an instant emotional response in everyone. Chances are high that you, or someone you know, have experienced chemotherapy for the treatment of cancer. Visions of bad side effects instantly come to mind. However, the reality of animals receiving chemotherapy is much different. For animals receiving chemotherapy, quality of life for the patient is the primary concern. The types of drugs and their dosages are adjusted to ensure minimal toxicity.

Chemotherapy may be the only treatment, or it may be given in combination with other modalities. The type of cancer your pet has will determine the recommendations for treatment. Some cancers also benefit from surgery, radiation, and/or cryosurgery. In some cases chemotherapy may be used to shrink the size of a tumor in order to increase your pet's comfort while living with the disease.

### **How is Chemotherapy Given?**

Chemotherapeutic protocols vary by the type of cancer, the extent of the disease, the health of your pet, and other health conditions your pet may have. Your oncology team gives some chemotherapeutic agents intravenously. You may give other agents orally at home. Chemotherapy agents may be given daily, weekly, or once every few weeks. The length of time your pet will be receiving chemotherapy depends on the type of cancer your pet has and your pet's response to the therapy.

Chemotherapy drugs are often used in combination in order to enhance the efficacy of the drugs and allow them to be used at lower dosages. Some tumors can be resistant to a certain drug. Using multiple drugs can help combat this problem by combining different ways of killing the cancer. The selection of drugs used will depend on what the standard protocol is for your pet's particular cancer, as well as your pet's individual health status.

### **What Side Effects Could be Seen?**

Compared to people, pets suffer fewer and less severe side effects from chemotherapy. This is primarily because veterinary oncologists use lower doses of drugs, and do not combine as many drugs as do human oncologists. All rapidly dividing cells in the body are sensitive to chemotherapy, and while cancer cells fall into that category, so do cells that are found in the intestinal tract, bone marrow, and hair follicles. Chemotherapy, therefore, may result in side effects seen 2 to 3 days after treatment, gastrointestinal upset, immune suppression, and hair loss in some pets.

- Gastrointestinal effects may include decreased appetite, vomiting, and diarrhea. They are usually seen 2 to 3 days after treatment. Most of the time these side effects are mild and of short duration. However, severe diarrhea and/or vomiting can lead to weight loss and dehydration. Anti-nausea or anti-diarrhea medication may be given to counter these effects.

- Immune-suppressive effects result when the bone marrow is no longer able to make as many white blood cells (this is called neutropenia.) This effect is usually seen 7 to 10 days after treatment. A low white blood cell count leads to an increased susceptibility to infection. Antibiotics may be prescribed as a preventive measure. In severe cases a specific bone marrow stimulant can be used.
- Some pets, just like some people, may lose their hair during chemotherapy treatment (this is called alopecia.) While this is less common in pets, it does happen in certain breeds of dogs (poodles, schnauzers). Whiskers are most commonly affected in cats, and shaved areas regrow more slowly. If hair loss occurs, it generally starts two to three weeks after chemotherapy begins. It may appear just in spots, as general thinning, or in rare cases the entire coat may fall out. Hair generally begins to grow back within a few weeks after treatment ends.

Certain drugs can have specific toxicity to certain organs, which will be discussed if those drugs are required for your pet. While severe side effects are rare, be aware that any patient could have an unexpected reaction to an agent.

### **What Happens to my Pet at each Visit?**

At each chemotherapy visit, your pet will have a physical examination done by the oncologist, and blood will be taken to monitor cell counts. Additional diagnostics may be scheduled as necessary. Once the tests are reviewed and your pet is cleared for treatment, administration of the drug will begin.

### **Chemotherapy Safety**

1. Always follow your oncologist's instructions regarding the safe administration of any chemotherapeutic agent at home. Remember to wear the gloves sent home with the medications and never break or cut a chemotherapy tablet.
2. Store chemotherapy drugs out of the reach of children and other pets. Should you have any of these drugs left at the end of your pet's treatment, please bring them back to the office for proper disposal.
3. Avoid direct contact with your pet's urine and feces for about 48 hours after chemotherapy administration. It is also a good idea to take your pet to a remote location in your yard in order to take care of business. The chemicals degrade rapidly in the environment. If your pet has an accident, please wear gloves and use disposable towels for cleaning.

Part of your pet's recovery plan includes attention from the people your pet loves most. Apart from following the above recommendations, don't be afraid to pet or cuddle with your friend.

### **How You Can Help**

- Make sure you schedule and keep all appointments
- Monitor your pet closely for signs of discomfort and report any changes
- Provide your pet with plenty of trips outside to do their business.
- Pay close attention to your pet's diet. If your pet's appetite declines it may be necessary to entice your pet by adding broth, bland meats, and by warming the meal. Offer plenty of fresh water and monitor how much your pet is drinking

And most importantly, don't forget to enjoy your pet. He or she is completely safe for all family members to be around. You should be able to go on walks, play ball and enjoy other normal activities. Feel free to cuddle, hug or kiss your pet. Your pet needs normal affection and time with the family.