

Frequently Asked Questions about Chemotherapy for Dogs and Cats

How is Chemotherapy given at Iowa State University?

Most chemotherapy drugs are given through the vein (IV) over a period of 1 or 2 minutes up to 30 minutes. Some chemotherapy is an oral pill or tablet and will be given wrapped in a delicious treat. For IV medications, typically a temporary catheter is placed in one of the veins of the leg to allow safe administration of the chemotherapy. A small patch of hair will be shaved where the catheter is placed, and your pet will go home with a bandage to be removed later. If your pet is a very small dog or cat, we may discuss placing an IV port to decrease the number of times a temporary catheter needs to be placed. Most pets do not need sedation to receive chemotherapy, even for longer infusions. They are simply held by caring members of our staff who make sure they are comfortable and safe during the administration of the chemotherapy.

What are the side effects of chemotherapy?

Cancer cells divide faster than normal cells, and chemotherapy drugs work by targeting fast-growing cells. Because of this, chemotherapy preferentially destroys cancer and spares normal tissues. However, there is the potential for some normal tissues with rapid growth rates (intestinal lining, bone marrow) to be temporarily damaged by chemotherapy.

Our goal in treating cancer in animals is quality of life. The dosages of chemotherapy we use are lower than those used in people, and we do not normally see significant toxicity with chemotherapy. There is always some risk when a drug is given (especially when given the first time), and we will discuss what types of side effects may develop, what should be watched for, and when you should contact a veterinarian for assistance. If a patient were to experience any adverse effects, we will address them as needed and may lower the dosage of the causative drug for future treatments to prevent recurrent problems.

Gastrointestinal Effects: Chemotherapy may lead to vomiting, diarrhea, decreased appetite, or a lack of energy. These effects are typically mild, and we send home oral medications to help you prevent these side effects before they even start.

Bone Marrow Damage: Chemotherapy can also damage the bone marrow for a short period of time making it difficult for the body to replace white blood cells, red blood cells, and platelets. The loss of white blood cells can mean our patients are more prone to infection. We adjust the dose of each chemotherapy so that it has less of a chance of causing a significant or life-threatening infection. In some cases, you will give antibiotics at home to help protect your pet. The loss of red blood cells may lead to increased tiredness or difficulty breathing. The loss of platelets can mean your pet will bruise or bleed more easily. All of these parameters will be monitored throughout treatment and prior to each dose to make sure it is safe to continue with the chemotherapy protocol.

Fur Loss: Animals generally do not lose their fur during chemotherapy, although it might change in texture or color. There are some breeds, however, like Old English sheepdogs, poodles, and some terriers that will lose their fur. It will regrow once treatment is finished.

Typically, 20-30% of our patients develop mild side effects; 5-8% have side effects that are severe enough to require hospitalization; and 1% can die as a direct result of their chemotherapy.

Are there any concerns to my family after our pet is treated?

For DOGS: Avoid contact with your dog's stool, urine, vomit, and saliva for 72 hours after treatment. Most chemotherapy drugs are unstable in the environment, but we do recommend that you encourage your dog to urinate and defecate in low-traffic areas of your yard for the first 72 hours after treatment. If your dog urinates, defecates, or vomits in your home, wear gloves when you clean the area. You can clean the area with soap and water or a light detergent.

For CATS: Avoid direct contact with your cat's urine or stool for the first 72 hours after treatment. Wear gloves when cleaning the litterbox. If you use flushable litter, flush it down the toilet; if not, scoop litter into a plastic bag and put this waste into an outdoor trash receptacle. Change all of the litter in the box 72 hours after treatment and clean litterbox with soap and water.

Any clothing/bedding which is soiled by feces, vomit, or urine within the first 24-48 hours following chemotherapy administration should be washed twice in hot water, separate from other laundry.

Note: Pregnant or nursing women, people actively trying to conceive, those who are immunocompromised, and children should not clean the litter box or handle stool/urine/vomit for 72 hours after chemotherapy is administered.

Should my pet receive vaccinations and preventative care while on chemotherapy?

Based on recent literature, it is safe to administer vaccinations during chemotherapy and the response to the vaccination is adequate. We do not recommend modified live vaccinations be given. We strongly recommend you continue flea/tick and heartworm preventative while on chemotherapy. If your pet is experiencing chemotherapy side effects (vomiting, diarrhea, decreased appetite) and is due for an oral preventative, please delay giving that drug until the chemotherapy side effects are gone.