



WHAT TO EXPECT FOR YOUR PET'S MEDICAL ONCOLOGY APPOINTMENT AND ONGOING CARE

We understand that having a pet with cancer is very scary and difficult. Our goal is to prepare you the best we can for your pet's visit and ongoing care here at The Pet Cancer Center at CASE. Please take time to read the following information prior to your pet's appointment or use it for reference as your pet is undergoing treatment.

What to expect at an initial consultation for your pet?

An initial consultation will involve evaluation of your pet's previous medical records, thorough physical examination of your pet, discussion of the cancer type (including any further diagnostics recommended, treatment options, and prognosis). Our goal is for the pet owner to have a good understanding of these things prior to moving forward with any further diagnostic tests or treatments for their pet. Our goal is to inform the pet owner the best we can so that the pet owner can make an informed decision for the treatment of their pet.

What diagnostics may be performed the same day as my pet's initial consultation?

A full evaluation and consultation is needed prior to moving forward with any diagnostics for your pet. We will discuss your pet's case and make recommendations. Some diagnostics, such as lymph node aspiration/evaluation, x-rays, and ultrasounds may be available the same day as the initial consult. Yet, this is not guaranteed. Advanced imaging (including CT scan and MRI) are not available the same day as initial consultation, as this requires extensive prior planning with other services in the hospital (such as anesthesia and radiology).

What are staging tests or restaging?

Staging is checking to see how advanced a cancer is in your pet. Different cancers have different chances of metastasizing/spreading to other locations in the body. Different cancers also have different ways or different places it spreads when they do. Therefore, different staging tests may include imaging of the chest or abdomen (this may include CT scan, x-rays, or ultrasound) or lymph node evaluation (typically by feeling and obtaining a needle sample of cells). The higher the stage, the more progressed or advanced a cancer is. Staging tests are commonly performed prior to treatments of cancer, as these results may change what is recommended by the oncologist or what is elected by the pet owner. If cancer is more advanced, then certain definitive treatments are no longer available and palliative (comfort) care is recommended. Staging tests are also commonly recommended following a treatment protocol to monitor your pet's cancer for any progression or concerns.

Why are pets given chemotherapy?

Chemotherapy is used or recommended in many different types of cancer in pets. It can be used alone or in combination with other treatments, such as surgery and radiation therapy. It can be used when surgery is not possible or cancer is advanced, to shrink large tumors prior to surgery, to treat certain cancer types (such as lymphoma) alone, or can be used following local treatment (surgery or radiation therapy) of a tumor to delay or prevent cancer spread to other parts of the body (metastasis).

What to expect when my patient is undergoing chemotherapy?

Considering treatment of your pet with chemotherapy can understandably sound scary. However, most pet patients go through chemotherapy treatment with minor side effects or no side effects at all. Compared to people undergoing chemotherapy treatment, pets have fewer and less severe side effects because we use lower dosages and do not want our pet patients to be sick. In veterinary oncology, our number one goal is our patients' quality of life. Protocols and dosages can be tailored to your pet to help avoid unwanted side effects.

While chemotherapy can attack cancer cells, certain parts of the body are also susceptible to the effects of chemotherapy. These sensitive tissues include the intestinal lining, bone marrow (which makes blood cells), and atypically the hair follicles:

- Gastrointestinal upset can cause symptoms such as nausea, vomiting, diarrhea, decreased to no appetite, and lethargy. This typically occurs 2-5 days following chemotherapy treatment. When we see them, these signs are usually mild and usually resolve on their own or with oral medications given at home. Although rare (less than 5%), some animals may develop severe vomiting or diarrhea requiring hospitalization and fluid therapy.
- Chemotherapy's effects on bone marrow may cause cell counts to lower, specifically white blood cell counts. This is expected to happen, but not to a severe degree and these cell counts increase on their own. Complete blood counts (CBC) are monitored throughout treatment to ensure that our pet patients' cell counts stay at a good level where they are not at increased risk of infection. If white blood cell counts drop too low, we can alter the dosage for subsequent treatments to avoid this in the future. It is not uncommon for chemotherapy to be delayed to allow the bone marrow more time to recover.
- Hair loss is minimal and may be seen in dogs that are non-shedding or wire-haired breeds, yet typically is not significant. Terrier or poodle breeds or mixes may experience more hair loss than other breeds.

How does chemotherapy work?

Most chemotherapy drugs attack cells in the process of rapid growth. Individual drugs may work through many different mechanisms, such as damaging a cell's genetic material (DNA) or

preventing the cell from dividing properly. However, all rapidly dividing cells (including some normal ones) are potentially affected by chemotherapy. Damage to normal, rapidly growing tissues in the body is the reason for most of the side effects seen with chemotherapy. Fortunately, these tissues continue to grow and repair themselves, so injury caused by chemotherapy is rarely permanent.

How is chemotherapy given?

How a cancer drug is administered, how often it is given and how many treatments are given varies from case to case. The type of cancer, the extent of disease, and general health of the patient help the oncologist to formulate a treatment protocol (type of drugs, dose, and schedule used) appropriate for your pet. Some drugs are oral medications (pills) that you give at home. Others are brief injections that require an outpatient appointment. In a few instances, slow infusions or repeated treatments throughout the day may require an animal to spend the day in the hospital. The treatments are typically repeated from weekly to every third week. Blood tests may be needed to monitor the effects of chemotherapy during the weeks between drug treatments. The duration of chemotherapy depends on the type of cancer and the extent of disease. Certain animals may need to receive chemotherapy for the rest of their lives. In others, treatments may be spread out or discontinued after a period of weeks to months provided that the cancer is in remission (i.e., there is no detectable evidence of cancer in the body). Chemotherapy can be resumed if the cancer relapses. We usually recommend that every patient receive at least 2 cycles of chemotherapy and then be evaluated for response before we decide to continue the treatment, change drugs or discontinue chemotherapy.

How should I handle my pet at home if receiving chemotherapy?

Chemotherapy drugs have the potential to cause damage to normal cells. Exposure to chemotherapy drugs or patient waste can theoretically pose a risk, despite the fact that the concentrations of the drug are very low. This risk is probably greatest for those people who are pregnant or nursing. If you are administering chemotherapy pills at home, it is suggested that you wear disposable latex gloves when handling the pills, and that tablets never be broken or crushed, nor capsules opened. Certain chemotherapy drugs and their by-products may be excreted in the feces or urine for up to 96 hours following administration. The risk associated with exposure is slight; however, should your pet have an accident in the house, it is wise to wear rubber gloves, blot the area with flushable paper, and clean the area twice with a detergent solution. There is no real risk associated with routine contact with your pet such as grooming, playing, or handling of food and water bowls. It is important that these medications be kept out of the reach of children. Should accidental ingestion of chemotherapeutic drugs occur, contact a poison control center immediately. Should any unused chemotherapy drugs remain after treatment, please return them to your oncologist so that they can be safely disposed of.

Will I speak to the oncologist at every appointment when my pet is undergoing chemotherapy treatment?

No, but the doctor will do a physical exam every time your pet is here for an appointment and will also be involved with their treatment that day. Our oncologists strive to have thorough and in

depth conversations with pet owners at the initial consultation to set up clients for a good understanding prior to their pet starting a chemotherapy treatment protocol. We also have incredible and very knowledgeable technicians (nurses) who are involved with your patient at every visit. The doctor will always speak to a client if there are any concerns regarding the pet or if the doctor just wants to check in.

Can my pet be on a raw diet if receiving treatment at CASE? What diet is recommended?

No. Our Oncology service has a strict policy prohibiting raw diets during cancer therapy. This is due to the greatly increased risk of exposure to harmful bacteria, both to pets eating raw diets and people who interact with them. Out of concern for both our patients' and staff's safety, we ask that you not feed a raw diet while your pet is a patient at CASE. There is no nutritional difference between raw and cooked food, and there are no proven benefits to raw food.

Our patients are having a lot of changes by the time they come to see us. We do not want to "rock the boat" when patients are going through cancer treatments by changing their food, which may also lead to gastrointestinal upset. A lot of changes make it difficult to know the cause of why a patient may not be feeling well or having signs such as diarrhea or vomiting. We ask that our patients continue on their current food (unless raw or other concerns). Recommended foods are made by companies that have nutritionists and good quality control measures for their pet diets. This includes food brands such as Purina, Royal Canin, Hill's, Iams, Eukanuba.

What are our thoughts on herbs, supplements, alternative therapies, CBC, etc for my pet?

We understand and respect that these therapies may play a role in the support and quality of life of a cancer patient. Unfortunately, we do not have data or science backing for many alternative or holistic therapies for pets with cancer. Although these products are "natural," that does not mean they are free from causing any side effects or interactions with other drugs. Overall, we just do not have a lot of data and information regarding these products and how they may benefit (or harm) a pet with cancer. The National Animal Supplement Council (NASC) does do quality control of suppliers of herbs and supplements, therefore, you may look for this label when purchasing products for your pet. You may also view these products on their website (<https://www.nasc.cc/members/>).

Does my pet's primary veterinarian still play a role in my pet's care following a diagnosis of cancer?

Yes. We see ourselves as a team with your pet's primary care veterinarian. Although pets may develop cancer, other ongoing non-cancer care will need to be continued with their primary veterinarian. This may include concurrent conditions (such as kidney disease) or for ongoing preventative care.

How do I know it is time to euthanize and what does it involve? What resources are available for my pet and myself during difficult end-of-life times?

Making the decision to say goodbye to a pet is extremely difficult. The timing of this decision is also very hard and different among individuals. Monitoring your pet's quality of life day to day is very important, yet when an individual elects to euthanize their pet has many different personal factors. Every owner knows their pet best and everyone is also entitled to their own beliefs. Remember, although this is very difficult, the goal of euthanasia is to relieve suffering of your pet when their quality of life is no longer where we want it to be. This may be related to decreased energy, decreased appetite, loss of their excitement for things they love, vomiting, diarrhea, weight loss, pain, among many other factors. There are really great resources that may help us all when evaluating our pets' quality of life.

Euthanasia is a peaceful process that involves your pet having an IV catheter placed. Different drugs are used to allow your pet to be very comfortable and at rest. Owners can be with their pet through the entire process and the veterinarian or nurse will discuss the entire process. There are many options when it is time to say goodbye to your pet that can help provide euthanasia services. This includes your pet's oncologist here at CASE, ER veterinarians at CASE (if after hours), primary veterinarians, and at-home euthanasia veterinarians (see listed below).

Resources for quality of life monitoring, pet loss support, and at-home euthanasia services:

1. Lap of Love (<https://www.lapoflove.com/> 720-399-7334)
 - a. This site includes many great resources, such as Quality of Life monitoring scales and calendar, more information regarding how to know it is time, and contact information for at-home euthanasia veterinarian
2. Caring Pathways (720-287-2553)
 - a. At-home euthanasia services
3. One Last Gift (720-432-4579)
 - a. At-home euthanasia services
4. Guardian Pet (970-889-9331)
 - a. At-home euthanasia services
5. Home to Heaven (970-412-6212)
 - a. At-home euthanasia services
6. ARGUS Institute at CSU (<https://vetmedbiosci.colostate.edu/argus/>) (Support - (970) 297-1242 (voicemail))
 - a. This also includes Owner Support and Pet Loss Services