

# Helping pets through chemo

Use these guidelines for dealing with the side effects of your pet's chemotherapy at home.

**I**n veterinary oncology, chemotherapy is typically very well tolerated—80% of pets have no side effects. In the 15% to 20% that do have side effects, they are typically not severe. Still, your veterinarian will want to identify any potential side effects so they can be minimized quickly by giving the pet certain medication. They may also adjust the next chemotherapy dose or add preventive medications with treatment.

I recommend all patients starting chemotherapy go home with “just in case” medications at the start of treatment. For dogs, I send them home with a nausea medication (usually maropitant, known as Cerenia), an anti-diarrheal medication (usually metronidazole), and a probiotic. Since cats tend to handle chemo better than dogs, I only send cats home with the nausea medication, unless they have gastrointestinal cancer or gastrointestinal signs before treatment.

To help manage and minimize side effects, your veterinary team needs your help! Here's what to look for and what to do at home after chemotherapy.

## Nausea

Nausea is often manifested by anorexia (decreased appetite), drooling or approaching food but not eating. This can be a challenging one to identify at home, especially if you have more than one pet

or your pet grazes on its food throughout the day. Here's what to do when you think your pet may be nauseated.

- > Hold your pet off food, and offer ice cubes every few hours.
- > Start anti-nausea medication as prescribed (Cerenia, metoclopramide, or ondansetron).
- > After 12 hours, feed very small but frequent meals, not one large meal.
- > Call your clinic if the condition persists over 24 hours.

## Vomiting

- > First, withhold food and water for 12 to 24 hours.
- > If the vomiting is mild (one or two episodes), start the anti-vomiting/anti-nausea medication as prescribed (Cerenia, metoclopramide, or ondansetron).
- > If there is no vomiting for 12 to 24 hours, offer small amounts of water or ice cubes.
- > If your pet does not vomit after drinking the water over the next 24 hours, offer small amounts of a bland diet. Bland diet options include white rice with boiled chicken, lean meats, or cottage cheese and rice or a commercially prepared diet recommended by your veterinarian.
- > If there is still no vomiting, gradually reintroduce your pet's normal diet over five to seven days.

**> If the vomiting is severe, persists for more than 24 hours, or is accompanied with a fever of greater than 103 F, please bring your pet to your veterinarian or an emergency clinic.**

## Diarrhea

- > Offer the bland diet (as above) and fresh water. When you switch back



to your pet's regular diet, wean them back gradually over five to seven days.

> For soft stool, start the probiotic. If no improvement is seen in one to two days, or it progresses to diarrhea, start the anti-diarrheal medication.

> For diarrhea, start the anti-diarrheal medication (such as metronidazole, sulfasalazine, or tylosin) as prescribed.

> If these medications were not prescribed or there is no improvement in 48 hours, contact your veterinarian. In dogs, Pepto-Bismol can be given. Pepto-Bismol is also known by its generic name bismuth subsalicylate. It is a human over-the-counter (OTC) medication for diarrhea and a gastrointestinal tract protectant. The dose is 2 to 2.5 ml for every 10 lb up to every six hours. Do not exceed therapy for more than five days. There are 5 ml in a teaspoon. Side effects are uncommon and include vomiting and stool discoloration. Refrigeration may improve palatability. This will discolor the stool.

> **Do not give Pepto-Bismol to cats.**

> Loperamide, also known as Imodium, is an opiate anti-diarrheal that decreases gut motility. It is a human OTC medication. It should be discontinued if diarrhea continues 48 hours after starting the medication. Contact your

veterinarian if your pet experiences constipation, lethargy or slowed heart or breathing rates while being treated with loperamide. It should not be used in collies and colie-type breeds due to sensitivity. And your pet may seem tired, dull or less responsive. Only use after approval from your veterinarian, as there are certain conditions in which this can be harmful, including respiratory disease, severe kidney disease, hypothyroidism and Addison's disease.

The dose in dogs is 0.2 mg/lb given orally every eight to 12 hours. It typically comes in 2-mg capsules and liquid at a concentration of 0.2 mg/ml. So a 45-lb dog should receive approximately a 2-mg tablet every eight to 12 hours. Use in cats is controversial as it may cause excessive excitement.

> **If the diarrhea is severe, bloody or black, persists for more than 48 hours or is accompanied with a fever of greater than 103 F, please bring your pet to your veterinarian or an emergency clinic.**

## Dehydration

> Dehydration can develop because of nausea, poor appetite, vomiting, diarrhea and fever.

> When properly hydrated, your pet's gums should be moist and shiny, and the skin should bounce back when gently lifted—this is usually done over the neck region (also called skin turgor). Note these are somewhat subjective and vary according to age (skin turgor) and panting (moistness of gums).

> **If the dehydration is severe, fluid therapy is necessary. Please bring your pet to your veterinarian or an emergency clinic.**

## Low white blood cell count

> After treatment, the white blood cell count may drop below normal and then return to normal by the next treatment. Typically, the decrease should not cause a problem. If the white blood cell count falls too low, the body can have difficulty fighting infection, and antibiotics will be prescribed.

> Signs to watch for include lethargy, vomiting, diarrhea, poor appetite and a fever. Please notify your veterinarian if any of these are observed.

> If your pet is showing any of the above



signs, take your pet's temperature with a rectal thermometer if you are comfortable doing this. (You can buy a digital thermometer at your local drug store.)

**> Normal temperature is 100 to 102.5 F. If your pet's temperature is greater than 103 F or if you are unable to take the temperature, please bring your pet to your veterinarian or an emergency clinic. A systemic infection is uncommon but will require hospitalization and intravenous antibiotics.**

### Increased frequency of urination or bloody urine

> Prednisone is a steroid and a part of some chemotherapy protocols. Steroids commonly causes pets to urinate more (larger volume) and drink more. Make sure your pet has access to fresh water at all times so it does not get dehydrated while taking steroids.

- > Do not limit your pet's access to fresh water.
- > Please do not stop giving the prednisone or change the dose. Prednisone must never be discontinued abruptly. It must be tapered under the direction of a veterinarian.
- > If your pet has bloody urine or is urinating more often, please inform your veterinarian or your veterinary oncologist so we can ensure your pet has not developed a urinary tract infection.

### General Information

**After intravenous injection appointments:** If your pet goes home with a bandage wrapped around the leg where chemotherapy was administered:

- > Be sure to remove this pressure bandage about an hour after you take your pet home. Otherwise, circulation may be compromised, and the paw may swell.
- > Check the injection site to make sure the area looks normal.
- > Some chemotherapeutic drugs can cause tissue irritation or sloughing if they get outside the vein and come in contact with other tissues, such as muscle and skin. If this is suspected, you will be advised on specific treatments to be done at home and what to monitor.
- > If your pet is licking excessively at the injection site, contact your veterinarian or your cancer specialist.

### Home safety with chemotherapy

Your pet is safe to be around after treatment. Being around family members is an important part of your pet's life. Normal activities together—including petting, hugging and kissing—are all safe. However, the excretions (urine, feces, vomit) from pets receiving chemotherapy

can be hazardous. Thus, it is important to minimize our exposure to chemotherapy, and common sense precautions should be taken.

### If you are administering oral chemotherapy at home:

- > Keep the medication in the vial and do not store it in the kitchen.
- > Ensure children and pets do not have access to the drugs.
- > Do not eat, drink or chew gum when giving the medication.
- > Do not crush or break the pills or capsules.
- > Wear unpowdered latex gloves when handling the medication (unless you are allergic to latex).
- > Dispose of the gloves promptly, and wash your hands thoroughly after administration.

### Cleaning up after your pet

- > A small amount of the chemotherapy and its metabolites are excreted in the urine and feces. Wear gloves for handling of feces or urine (i.e. if they have an accident in the house or apartment, cleaning the litter box) for at least 72 hours after treatment.
- > Soiled bedding should be washed separately and go through two wash cycles before being used again.

### Accidental exposure:

- > Wash skin thoroughly. If your skin becomes irritated, contact your physician.
- > Use detergent to clean floors, carpets or countertops. Wear gloves when cleaning.

**If you are pregnant, trying to become pregnant, are breast-feeding, are immunosuppressed or are taking immunosuppressive medication:**

- > Please avoid contact with these drugs.
- > Avoid contact with your pet and your pet's waste for a minimum of 72 hours after chemotherapy has been given.
- > Please discuss with your physician.

Remember severe side effects are uncommon. If your pet does have any of these side effects, it is helpful to take notes when the side effects occurred in relation to chemotherapy, how long they lasted, and what medications you administered. We can adjust therapy or add preventive medications to help make sure your pet has the best outcome with minimal side effects.