Chemotherapy and your pet
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Chemotherapy aims
Our goal in using chemotherapy is to prolong your pet’s life, but more importantly to maintain a good quality of life for them while they are undergoing treatment for cancer. Although we do use similar drugs to those used in treating cancer in people, we generally don’t administer the high doses used in more intensive protocols for human patients. The side effects that our animal patients face are therefore much reduced or hopefully non-existent.

What is chemotherapy?
Chemotherapy is the treatment of cancer with drugs. It can also be used in conjunction with surgery and/or radiation treatment and over the years has proven helpful in the treatment of several different types of cancer in dogs and cats.
How does chemotherapy work?
Cancer can generally be defined as a rapid, uncontrolled growth of cells. Anti-cancer drugs interfere with the ability of cells to grow and multiply. Unfortunately anti-cancer drugs cannot usually discriminate between cancer cells and normal body cells and therefore normal cells, especially those found in the bone marrow and gastrointestinal tract, can also be affected. Most normal cells are, however, better able to recover and repair themselves than cancer cells. For widespread tumours, drugs are used to provide a total body effect and this is known as systemic chemotherapy. In many cases, a combination of different drugs working in different ways is the most effective way to kill the cancer cells.

How is chemotherapy given?
Most anti-cancer drugs are given either by mouth (orally) or by injection. Some drugs need to be injected into a vein while others can be injected into the muscle or under the skin.

How long will your pet receive chemotherapy?
The length of time and frequency of drug administration will depend on the type of cancer being treated and how well the treatment is tolerated by the patient. Treatment may be given daily, weekly or monthly and sometimes the time between treatments is tailored to the individual patient. Treatment may be given in cycles which include rest periods where no treatment is given, allowing patients time to build healthy new cells.

Are you at risk of exposure to these drugs?
- For orally administered drugs, as with all medication, it is important that the capsules or pills are kept out of reach of children, in child-proof containers. Most oral drugs have a protective coating, but we recommend that you wear disposable gloves when handling these medications and tablets/capsules must never be split.
- It is important to avoid unnecessary contact with the urine and faeces of animals receiving chemotherapy, especially for the first week after the drug is given. This really just involves normal sensible hygiene precautions. If your dog or cat has an accident in the house, wear gloves to clean it up - cat litter can be a useful absorbent material to use on urine. Then thoroughly rinse the exposed surface after the waste is cleaned off.
- See also Safe handling of chemotherapy at home Information Sheet for details.

Will your pet experience any side effects?
The vets treating your pet will always try to choose the drug doses and combinations likely to cause the least number of side effects while still giving the best therapeutic advantage possible for your pet.

Steroid drugs often have a role in cancer treatment protocols and these may be given at high doses in the early stages of treatment. Noticeable side effects may include your pet drinking more so they will need free access to water and frequent opportunities to urinate. Their appetite often increases and some dogs will appear to puff and pant a bit more. These side effects are mild, reversible and improve as the dose reduces.

Please observe your pet closely during treatment and telephone us if you feel he/she seems ill or you have any questions or concerns. Your pet may need to be seen by us or your own vet (or their emergency service) if there are any severe side effects.

The following are potential adverse reactions to treatment and appropriate actions.

**Fever**
Most dogs and cats with a high temperature are miserable and refuse to eat. If your pet is depressed, has a fever or has any blood in the faeces, it may be necessary to start treatment with antibiotics and/or intravenous fluids (i.e. ‘a drip’). Once your pet starts a course of antibiotics, you will always need to complete the course of treatment which has been prescribed, even if the situation improves rapidly, as it often will.

**Vomiting**
Vomiting once or twice (without any other signs or fever) does not usually require treatment. If it continues for more than 24 - 36 hours or if your pet vomits more than 4 – 6 times in a day, please contact us. Withdrawing food and water for a few hours may be helpful, although water should not be restricted for any longer. Once your pet is able to drink without vomiting, you can offer small amounts of bland food such as fish or chicken for a day or so before gradually returning to a more normal diet. Severe vomiting means your pet might require hospitalisation and further treatment, including intravenous fluid therapy (a ‘drip’) and drugs to control nausea.

**Diarrhoea**
Diarrhoea without vomiting or fever can usually be managed by feeding a bland diet (fish or chicken with white rice or potato) and then gradually switching back to the food you normally give. Cats can be fed chicken or fish alone without the rice or potato.
**Cystitis**
Signs of bladder discomfort (straining to urinate, urinating small amounts frequently, blood seen in the urine) may occur occasionally after cyclophosphamide treatment. Please call us if you see any of these signs. In order to reduce the risk of cystitis developing, please make sure your pet has plenty of fresh water available at all times, and has frequent opportunities to urinate.

**Hair loss**
Only dogs with continually growing hair coats (e.g. Poodles, Old English Sheepdogs, some Terriers) tend to lose significant amounts of hair although other breeds can sometimes be affected. Cats may lose their whiskers. Hair coats will often return when treatment is finished or with a decrease in frequency of chemotherapy administration, but it may take some time for full recovery. A different colour and texture of hair may regrow.

**Heart disease**
Doxorubicin is a potent anti-cancer drug which has been associated with causing heart disease with long term use in some dogs. This side effect is not a major issue in most dogs that receive a limited amount of doxorubicin in their lifetime. However, in dogs with pre-existing heart disease, doxorubicin may cause problems more readily. If your dog is identified as having a form of pre-existing heart disease, which is likely to cause problems if doxorubicin is used, we will discuss this in detail with you. This is not generally a problem in cats, although cats do need to be monitored for kidney problems.

**Please talk to us about your concerns**
This list of potential side effects of chemotherapy can appear very alarming but please realise that this includes all the common side effects of a variety of drugs used to treat many different tumours.

We hope that your dog or cat will feel well throughout the time that he/she is receiving chemotherapy, or perhaps have one day after the treatment when they are just a little off-colour (loss of appetite, slight nausea) but no more. Unfortunately, however, each patient responds differently, so we have to adjust the dosage of treatment to give the best chance of the cancer responding to therapy, whilst at the same time keeping the patient feeling as well as possible. This means that we have a ‘starting point’, or a drug dose that most patients tolerate well, but if you feel that your dog or cat is unwell during treatment then talk to us and in many cases we can use a lower dose of drug the next time that we give it, or even change the type of drug that we give, to make them feel better.

Every individual is different and we rely on you, who know your dog or cat best, to let us know if you are not happy with how they are doing.

**Why should I bring my pet to Willows?**
Willows is unique in the UK in having recognised, accredited cancer specialists working in both the medical and surgical aspects of tumour diagnosis and management.

We aim to provide the best possible care and treatment for your pet in our state-of-the-art hospital. Our oncologists work closely with the imaging Specialists who run Willows sophisticated imaging facilities, as well as with expert anaesthesia and analgesia Specialists and 24-hour veterinary and nursing staff, all of whom help to give our patients the very best treatment and care.

If you have any questions at all, please call Willows Veterinary Centre and Referral Service on 0121 712 7070. We can also be contacted through our emergency service at any time if necessary.

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**Reference**