

Fluorouracil

(flure-oh-yoor-a-sill)

Category: Anticancer Agent

Other Names for this Medication: 5-FU, Adrucil®

Common Dosage Forms: Veterinary: None. **Human:** 50 mg/mL injection; 2% & 5% topical solution; topical creams in concentrations ranging from 0.5%-5%.

This information sheet does not contain all available information for this medication. It is to help answer commonly asked questions and help you give the medication safely and effectively to your animal. If you have other questions or need more information about this medication, contact your veterinarian or pharmacist.

Key Information

- ▶ Fluorouracil is a chemotherapy (anticancer) drug. This drug can be hazardous to other animals and people that come in contact with it. On the day your animal gets the drug and then for a few days afterward, all bodily waste (urine, feces, litter), blood, or vomit should only be handled while wearing disposable gloves. Seal the waste and any items used to clean it (eg, paper towels, gloves) in a plastic bag and then place bag in another bag (double bag) before placing in with the regular trash.
- ▶ If applying fluorouracil to the skin of your animal, wear disposable gloves and wash your hands immediately after each use. Place used gloves in a sealed plastic bag and dispose of with the regular trash.
- ▶ **Fluorouracil should NEVER be used in cats.**
- ▶ Fluorouracil can be toxic to the nervous system (seizures, convulsions) and to the gastrointestinal tract (lack of an appetite, vomiting, diarrhea).

How is this medication useful?

Fluorouracil is used to treat a variety of cancers and skin cancers in animals. It can be given as an IV (intravenous) injection, injected into skin tumors, or applied topically to treat some skin cancers. Fluorouracil should **NEVER** be used in cats in any form.

The FDA (U.S. Food & Drug Administration) has approved this drug for use in humans but it is not officially approved for use in animals. The FDA allows veterinarians to prescribe products containing this drug in different species or for other conditions in certain situations. You and your veterinarian can discuss why this drug is the most appropriate choice.

What should I tell my veterinarian to see if this medication can be safely given?

Many things might affect how well this drug will work in your animal. Be sure to discuss the following with your veterinarian so together you can make the best treatment decisions.

- ▶ Tell your veterinarian and pharmacist what medications (including vitamins, supplements, or herbal therapies) you are giving your animal, as well as the amount and schedule of each.
- ▶ Tell your veterinarian about any conditions or diseases your pet may have now or has had in the past.
- ▶ If your animal has been treated for the same disease or condition in the past, tell your veterinarian about the treatment and how well it did or didn't work.
- ▶ If your animal is pregnant or nursing, talk to your veterinarian about the risks of using this drug.

- ▶ Tell your veterinarian and pharmacist about any medication side effects (including allergic reactions, lack of appetite, diarrhea, itching, hair loss) your pet has developed in the past.

When should this medication not be used or be used very carefully?

No drug is 100% safe in all patients, but your veterinarian will discuss with you any specific concerns about using this drug in your animal.

This drug **SHOULD NOT** be used in:

- ▶ **Cats.** All forms of this drug are toxic (poisonous) to cats.
- ▶ Animals that have had an allergic reaction to fluorouracil.

This drug should be used **WITH CAUTION** in patients:

- ▶ With bone marrow suppression, an existing infection, or in a poor nutritional state.
- ▶ With epilepsy or history of seizures as fluorouracil may cause seizures.

If your pet has any of these conditions, talk to your veterinarian about the potential risks versus benefits.

What are the side effects of this medication?

- ▶ Bone marrow suppression is the most common side effect with this drug. The greatest effects on bone marrow usually occur 1-2 weeks after treatment. Your veterinarian will do blood tests to watch for this, but if you see bleeding, bruising, fever (indicating an infection), or if your animal becomes tired easily, contact your veterinarian immediately.
- ▶ Gastrointestinal tract toxicity. Vomiting, lack of an appetite, diarrhea, ulcers or sores in the mouth and GI tract may be seen. If these are severe or continue, contact your veterinarian immediately.
- ▶ Nervous system toxicity. Contact your veterinarian immediately if your pet has a seizure or develops serious behavior changes.
- ▶ Dogs: Loss of fur. Many dogs receiving chemotherapy will have minor hair coat changes (eg, shagginess, loss of luster). Breeds with continuously growing hair coats (eg, poodles, terriers, Afghan hounds, or old English sheepdogs) are more likely to experience significant hair loss.

If my pet gets too much of this medication (an overdose), what should I do?

It is unlikely that your animal will receive this drug as an injection outside of the veterinarian's office, but if your pet ingests the topical cream medication, a serious overdose, requiring emergency treatment, can occur. Contact your veterinarian or an animal poison control center for further advice. Animal poison control centers that are open 24 hours a day include: **ASPCA Animal Poison Control Center** (888-426-4435) and **Pet Poison HELPLINE** (855-764-7661); a consultation fee is charged for these services.

How should this medication be given?

Your veterinarian will likely administer this drug by injection in the office and you will not administer it at home. If you are administering this drug topically, wear gloves and wash your hands immediately after application.

What should I do if I miss giving a dose of this medication?

- ▶ You will not be administering the injectable medication at home, but it is important that you go to future scheduled appointments for any additional dosages and follow-up care.
- ▶ If you are administering topical forms of fluorouracil and you miss applying it to your animal, apply it when you remember, then wait the regular time between doses recommended by your veterinarian before applying another dose. Do not double-up or give extra doses.

How should I store this medication?

- ▶ Keep the topical cream away from children and other animals. It can be very toxic or even fatal if eaten.
- ▶ If your veterinarian or pharmacist has made (compounded) a special topical formulation for your animal, follow the storage recommendations and expiration date for the product.

Can handling this medication be hazardous to me, my family, or other pets?

- ▶ You will not be handling this medication when it is given by injection. For a few days after your animal receives it, this drug can be found in the animal's saliva, urine, feces, and blood.
- ▶ This drug can cause serious adverse effects in people or animals that are exposed to it, disposable gloves should be worn to avoid contact with bare skin. Be careful not to accidentally rub your eyes. Wear gloves when disposing of dog droppings or cleaning up urine spills or vomit. Do not reuse gloves. **Seal the waste with all gloves and items used to clean it (eg, paper towels) in a plastic bag, then place into an additional plastic bag (double bag) before putting in the regular trash.**
- ▶ Do not let treated animals lick human skin. If skin exposure occurs, the area should be washed thoroughly with soap and water. Contact your physician if you have any concerns.
- ▶ If you are giving this drug topically (on the skin), wear disposable gloves and wash your hands immediately after each use. Dispose of gloves as described above.
- ▶ Pregnant women **SHOULD NOT** handle any waste or items used to clean the waste while your animal is on this drug.

How should I dispose of this medication if I don't use it all?

- ▶ Topical creams should not be flushed down the toilet or washed down the sink. If a community drug "take-back" program is available, use this option. If there is no take-back program, the drug can be thrown away with regular trash but the container (tube/jar) containing the cream should be placed inside another sealed container to prevent accidental exposure to people or animals.
- ▶ Do not save left over medication for future use or give it to others to use.
- ▶ The injectable form of is medicine is only given in your veterinarian's office, so you will not need to dispose of it.

What other information is important for this medication?

- ▶ Your veterinarian will need to perform follow up examinations and lab work on your animal after it receives this medication. Do not miss these important follow-up visits.
- ▶ Your animal should not receive vaccines containing live (or modified live) viruses while receiving this medication.
- ▶ In the interest of safety to other animals and humans, don't take your dog to a dog park or allow your animal to urinate and defecate in public places until your veterinarian tells you that it is okay to do so.
- ▶ Your animal should not participate in animal competitions while on this drug. Exposure to other animals may put your animal at serious risk of infections during chemotherapy treatment. Talk with your veterinarian about when it is safe to return to these events.
- ▶ This medication should **NEVER** be used in or on cats. If you have a cat in your home, take extra care to ensure it does not come into contact with this drug (topicals) at the site where it was applied to your dog. Your dog's saliva, urine, feces, blood, and bedding can also be sources of exposure to the drug, so be sure to take precautions to keep your cat away from these areas as well.

If you have any other questions or concerns about this medication, contact your veterinarian or pharmacist.