

# Mitoxantrone

(mye-toe-zan-trone)

**Category:** Anticancer Agent

**Other Names for this Medication:** Novantrone®

**Common Dosage Forms:** **Veterinary:** None. **Human:** 2 mg/mL injection.

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

- ▶ Mitoxantrone 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 chemotherapy-resistant 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.
- ▶ A blue-green color to urine or a bluish color to the whites of the eyes can be seen but is not a problem.
- ▶ If your pet has severe vomiting, lack of an appetite, bloody diarrhea, or redness and/or swelling where the drug was given, call your veterinarian immediately.
- ▶ Bone marrow suppression can occur; watch your pet for: weakness, fever, bruising, and bleeding. If you see any of these signs, contact your veterinarian immediately.

## How is this medication useful?

Mitoxantrone is an injectable chemotherapy drug that is used to treat a variety of veterinary cancers in humans and animals.

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. Generally, animals with severe liver or kidney problems should not receive mitoxantrone but benefit may outweigh risk when your pet has cancer.

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

- ▶ That have had a severe allergic reaction to mitoxantrone.

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

- ▶ Animals with bone marrow suppression or active/existing infections. Your veterinarian may choose to delay use of mitoxantrone if your animal has either of these conditions.
- ▶ Animals with serious heart problems.
- ▶ Animals with severe liver disease.
- ▶ Animals with too much uric acid (urate) in their blood or urine.
- ▶ Dog breeds that may have a certain genetic mutation (*MDR1*) until they are tested for this mutation. This mutation is most commonly found in “white feet” breeds, including collies, Australian shepherds, shelties, long-haired whippets. Dogs that have this mutation may be overly sensitive to this medicine and have serious side effects.

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?

- ▶ Gastrointestinal toxicity (eg, vomiting, lack of appetite, diarrhea): Mitoxantrone can cause severe vomiting after it is given; veterinarians often will prescribe medication to help lessen this effect. If you see severe vomiting or bloody diarrhea, call your veterinarian immediately.
- ▶ Bone marrow suppression can occur; watch your pet for: weakness, fever, bruising, and bleeding. If you see any of these signs, contact your veterinarian immediately.
- ▶ Skin and tissue damage at the injection site. If this drug leaks out of the vein while it is being given, it can cause severe damage to the skin and surrounding tissue. If you see redness or swelling in the area where the medicine was given to your pet, contact your veterinarian immediately.
- ▶ The whites of the eyes may turn a slight blue and the urine may turn to a blue-green color but these changes are of no significance.
- ▶ Seizures (convulsions). Seen rarely in cats. Contact your veterinarian immediately if your cat has a seizure.
- ▶ Mitoxantrone rarely damages the heart in human patients. It is not known if this occurs in animals.

**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 outside of the veterinarian's office.

**How should this medication be given?**

Your veterinarian will administer this drug by injection in the clinic. Watch for any adverse reactions when your animal arrives home after receiving this drug.

**What should I do if I cannot make a scheduled treatment visit?**

This drug must be dosed very carefully. Contact your veterinarian for further instructions if you are unable to make a scheduled treatment.

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

- ▶ You will not be handling this medication, but 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 chemotherapy-resistant gloves should be worn to avoid contact with bare skin. Be careful not to accidentally rub your eyes. Also, wear these gloves when disposing of cat litter or 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.
- ▶ Pregnant women **SHOULD NOT** handle any waste or items used to clean the waste while your animal is on this drug.

**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, do not 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.

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