

# Ivermectin, Oral

(eye-ver-mek-tin)

**Category:** Antiparasitic Agent

**Other Names for this Medication:** Heartgard®, Ivomec®

**Common Dosage Forms: Veterinary: Dogs:** Oral tablets (plain or chewable): 68 mcg, 136 mcg, & 272 mcg. Oral tablets are also available for dogs that combine ivermectin with other deworming medications that include pyrantel, or fenbendazole, and praziquantel. **Cats:** Oral tablets (chewable): 55 mcg & 165 mcg. **Horses:** Oral paste: 1.87% (18.7 mg/gram) in 6.08 g syringes. There are also oral pastes that combine ivermectin with praziquantel (used for tapeworms). **Human:** 3 mg and 6 mg tablets.

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

- ▶ Antiparasitic drug used in many species but can be toxic in some species (eg, turtles, skinks, some birds).
- ▶ Should be used with caution in dog breeds that could have a genetic mutation (eg, *ABCB1-1Δ* [*MDR1*]) until they test negative. This mutation is most commonly found in “white feet” breeds, including collies, Australian shepherd dogs, shelties, and long-haired whippets. Ivermectin, at higher doses, is toxic to dogs with this mutation.
- ▶ May be given with or without food. If your pet vomits or acts sick after receiving the drug on an empty stomach, try giving the next dose with food or a small treat. If vomiting continues, contact your veterinarian.
- ▶ Overdoses can be serious; measure doses carefully and keep flavored, chewable tablets out of reach of children and animals.
- ▶ Usually well tolerated. If you see neurologic signs such as coma, weakness, clumsiness, dilated (ie, big) pupils, trembling, excessive salivation (ie, drooling), or if the animal presses its head against the wall, contact your veterinarian immediately.
- ▶ Dispose of unused product carefully; it can be very toxic to fish and wildlife.

## How is this medication useful?

Ivermectin is an antiparasitic drug that is used to treat many different parasites in various species. Ivermectin is also used to treat and prevent heartworm and lung parasite infections, some intestinal parasites, and various kinds of mites that may infect the skin (ie, mange) and ears.

The FDA (U.S. Food & Drug Administration) has approved this drug for use in several species, including dogs, cats, and horses, for treating different parasitic infections or preventing heartworm infection. The FDA allows veterinarians to prescribe and use products containing this drug in different species or for other conditions in certain situations. Ivermectin is also FDA approved for use in humans, but human dosage forms are rarely used in animals due to expense and availability of veterinary-approved products. 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.

- ▶ Other drugs can interact with this drug, so be sure to tell your veterinarian and pharmacist what medications (including

vitamins, supplements, or herbal therapies) you give your animal, including the amount and time you give each.

- ▶ Tell your veterinarian about any conditions or diseases your animal may have now or may have 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, especially if your dog has not been tested for the *ABCB1-1Δ* (*MDR1*) genetic mutation. Ivermectin is thought to be safe to use during pregnancy.
- ▶ Tell your veterinarian and pharmacist about any medication side effects (including allergic reactions, lack of appetite, diarrhea, itching, hair loss) your animal 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:

- ▶ At higher than labeled dosages in dog breeds that may have a certain mutation (*ABCB1-1Δ*, also called *MDR1*) until they are tested for this mutation. This mutation is most commonly found in “white feet” breeds, including collies, Australian shepherd dogs, shelties, and long-haired whippets. Dogs that have this mutation may be overly sensitive to the drug, which can result in toxicity.
- ▶ In animals that are allergic to ivermectin or other avermectin drugs (eg, selamectin, moxidectin).
- ▶ In animals less than 6 weeks of age.
- ▶ In dairy animals or horses that are to be used for food.
- ▶ In turtles, tortoises, indigo snakes, and skinks. Ivermectin is toxic in these species.

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

- ▶ In dogs without a current heartworm test. Dogs must be tested for heartworm infection before being given ivermectin-containing products. Dogs infected with heartworms are at risk of having a serious adverse reaction (caused by the rapid die off of immature heartworms) following drug administration.
- ▶ In birds. Ivermectin can be toxic in several species of birds, including orange-cheeked waxbill finches & budgerigars. It should only be used under the direct guidance of a veterinarian with experience treating birds.
- ▶ In cats younger than 1 year, which may be at higher risk for neurologic toxicity.

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

**What are the side effects of this medication?**

**Side effects that usually are not serious include:**

- ▶ Horses: Itching, irritation, pain, swelling of the skin. When parasites begin to die, a mild allergic reaction to the dead and dying parasites can occur.

You don't have to be overly concerned if you see any of these unless they are severe, persistent, or worsen. Contact your veterinarian if this happens.

**Side effects that may be serious or indicate a serious problem:**

- ▶ Neurologic toxicity. Toxicity is more commonly seen with higher doses in kittens and dogs with the *ABCB1-1Δ* genetic mutation. Neurologic signs can include: coma, weakness, blindness, clumsiness, dilated (big) pupils, trembling, excessive drooling or foaming, or the animal pressing its head against the wall.

If you see any of these, contact your veterinarian immediately.

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

Overdoses can be serious. Overdoses in dogs or cats can cause vomiting, diarrhea, stumbling, lethargy (ie, tiredness, lack of energy), rapid heartbeat, excessive drooling, dilation of pupils, coma, and seizures. If you witness or suspect an overdose, contact your veterinarian or an animal poison control center for further advice. Animal poison control centers that are open 24 hours a day include: **Pet Poison HELPLINE** (855-764-7661) and **ASPCA Animal Poison Control Center** (888-426-4435); a consultation fee is charged for these services.

**How should this medication be given?**

For this medication to work, give it exactly as your veterinarian has prescribed. It's a good idea to always check the prescription label to be sure you are giving the drug correctly.

- ▶ Ivermectin and combination products can be given by mouth as tablets, chewable tablets, oral liquids, oral pastes, oral drenches, injection, and topical formulations.
- ▶ The drug may be given either with food or on an empty stomach. If your pet vomits or acts sick after receiving the drug on an empty stomach, try giving the next dose with food or a small treat. If vomiting continues, contact your veterinarian.
- ▶ Liquid forms of this medication must be measured carefully. Your veterinarian or pharmacist can help by providing special measuring spoons or syringes.
- ▶ If you have difficulty getting your animal to take the medicine, contact your veterinarian or pharmacist for tips to help with dosing and to reduce the stress of medication time.
- ▶ This medication can be given for various lengths of time. Be sure you understand how long your veterinarian wants you to continue giving this medication. Prescription refills may be necessary before the therapy is complete. Before stopping this medication, talk to your veterinarian, as there may be important reasons to continue its use.

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

If you miss a dose, give it when you remember and then wait the amount of time between doses recommended by your veterinarian before giving another dose. Do not double up or give extra doses. When using ivermectin for heartworm prevention: If more than 8 weeks have passed without giving this medication, start giving the drug as soon as you remember. After that, continuing giving the medication monthly, but make sure to have your animal tested for heartworm infection 6 months later, as your dog may have become infected during the time the medication was not given.

**How should I store this medication?**

- ▶ Store this medication in the original prescription bottle or an approved dosage-reminder container (ie, pill minder) at room temperature and protected from light.
- ▶ If your veterinarian or pharmacist has made (compounded) a special formulation for your animal, follow the storage recommendations and expiration date for the product.
- ▶ Keep away from children and other animals, especially the chewable or flavored forms of the drug.

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

There are no specific precautions required when handling small animal products of this medication unless you are allergic to it. When using any large animal formulation, do not eat or smoke, and wash your hands well after use to avoid accidentally getting any of the drug into your mouth. Avoid contact with eyes.

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

- ▶ Dispose of ivermectin carefully; it can be very toxic to fish, turtles, and other wildlife.
- ▶ Do not flush this medication down the toilet or wash it down the sink. If a community drug "take-back" program is available, use this option. If there is no take-back program, mix the drug with coffee grounds or cat litter (to make it undesirable to children and animals and unrecognizable to people who might go through your trash), place the mixture in a sealable plastic bag to keep it from leaking out, and throw the bag out with the regular trash.
- ▶ Do not save leftover medication for future use or give it to others to use.

**What other information is important for this medication?**

- ▶ Using the large animal injectable products orally (ie, by mouth) in small animals is not recommended. They are very concentrated and can be easily overdosed.
- ▶ Use of this drug may not be allowed in certain animal competitions. Check rules and regulations before entering your animal in a competition while this medication is being administered.

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

# Ivermectin with Pyrantel Pamoate (Dogs)

(eye-ver-mek-tin with pi-ran-tel pam-oh-ate)

**Category:** Antiparasitic

**Other Names for this Medication:** Heartgard® Plus, Heartshield Plus®, Iverhart Plus®, Tri-Heart Plus®, Pettrust Plus®

**Common Dosage Forms: Veterinary: Dogs:** Chewable Oral tablets: Ivermectin/Pyrantel: 68 mcg/57 mg, 136 mcg/114 mg, & 272 mcg/227 mg. **Human:** None.

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

- ▶ Antiparasitic combination used in dogs to prevent heartworm infection and for the treatment and control of roundworms and hookworms.
- ▶ Can be added to a small amount of food. It is best if the dog chews the tablet before swallowing. If your dog normally swallows treats whole (without chewing), the tablet may be broken into pieces and the pieces fed to the dog.
- ▶ Overdoses can be serious; keep flavored, chewable tablets out of reach of children and animals.
- ▶ Usually well tolerated. If you notice neurologic signs such as coma, weakness, clumsiness, dilated (ie, big) pupils, trembling, excessive salivation (ie, drooling), or the dog pressing its head against the wall, contact your veterinarian immediately.
- ▶ Dispose of unused product carefully; it can be quite toxic to fish and wildlife.

## How is this medication useful?

Ivermectin with pyrantel pamoate is used in dogs to prevent heartworm disease and for the treatment and control of roundworms and hookworms.

The FDA (U.S. Food & Drug Administration) has approved this drug for use in dogs. The FDA allows veterinarians to prescribe and use products containing this drug combination 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.

- ▶ Other drugs can interact with this drug combination, so be sure to tell your veterinarian and pharmacist what medications (including vitamins, supplements, or herbal therapies) you give your animal, including the amount and time you give each.
- ▶ Tell your veterinarian about any conditions or diseases your pet may have now or may have 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. Ivermectin with pyrantel is thought to be safe to use during pregnancy.
- ▶ Tell your veterinarian and pharmacist about any medication side effects (including allergic reactions, lack of appetite, diarrhea, itching, hair loss) your animal 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 dogs that:

- ▶ Are allergic to pyrantel, ivermectin or other avermectin drugs (eg, selamectin, moxidectin).

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

- ▶ In puppies less than 6 weeks of age.
- ▶ Dogs must be tested for heartworm infection before being given ivermectin-containing products. Dogs infected with heartworms are at risk for having a serious adverse reaction (caused by the rapid die off of immature heartworms) following drug administration.

If your dog matches any of these, talk to your veterinarian about the possible risks of using the medication versus the benefits that it might have.

## What are the side effects of this medication?

When used as directed on the label, side effects are rare.

### Reported side effects that usually are not serious include:

- ▶ Vomiting, diarrhea.

You don't have to be overly concerned if you see either of these unless they are severe, persistent, or worsen. Contact your veterinarian if this happens.

### Side effects that may be serious or indicate a serious problem:

- ▶ Central nervous system toxicity (especially in those breeds that have the *ABCB1-1Δ [MDR1]* mutation). Toxic signs can include: coma, weakness, clumsiness, blindness, dilated (big) pupils, trembling, excessive drooling or foaming, or the animal pressing its head against the wall.
- ▶ Blindness or enlarged pupils can occur when doses are high, especially in susceptible breeds of dogs.

If you see any of these, contact your veterinarian immediately.

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

Overdoses of this drug combination can be serious and cause vomiting, diarrhea, stumbling, lethargy (ie, tiredness, lack of energy), rapid heartbeat, excessive drooling, dilation of pupils, coma, and seizures. If you witness or suspect an overdose, contact your veterinarian or an animal poison control center for further advice. Animal poison control centers that are open 24 hours a day include: **Pet Poison HELPLINE** (855-764-7661) and **ASPCA Animal Poison Control Center** (888-426-4435); a consultation fee is charged for these services.

**How should this medication be given?**

For this medication to work, give it exactly as your veterinarian has prescribed. It's a good idea to always check the prescription label to be sure you are giving the drug correctly.

- ▶ Remove only 1 chewable tablet at a time from the foil-backed blister card. Return the card with the remaining chewable tablets to its box to protect the product from light.
- ▶ It is best if the dog chews the tablet before swallowing. If your dog normally swallows treats whole (without chewing), the tablet may be broken into pieces and the pieces fed to the dog.
- ▶ Be sure your dog eats the complete dose. Watch your dog for a few minutes after dosing to be sure that part of the dose is not rejected or spit out. If it is suspected that any of the dose has not been eaten, redosing is recommended.
- ▶ If you have difficulty getting your animal to take the medicine, contact your veterinarian or pharmacist for tips to help with dosing and to reduce the stress of medication time.
- ▶ This medication can be given for various lengths of time. Be sure you understand how long your veterinarian wants you to continue giving this medication. Prescription refills may be necessary before the therapy will be complete. Before stopping this medication, talk to your veterinarian, as there may be important reasons to continue its use.

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

If you miss a dose, give it when you remember and then wait the amount of time between doses recommended by your veterinarian before giving another dose. Do not double up or give extra doses.

When using ivermectin for heartworm prevention: If more than 8 weeks have passed without giving this medication, start giving the drug as soon as you remember. After that, continue giving the medication monthly, but make sure to have your animal tested for heartworm infection 6 months later, as your dog may have become infected during the time the medication was not given.

**How should I store this medication?**

- ▶ Store this medication in the original prescription container or an approved dosage-reminder container (ie, pill minder) at room temperature and protected from light.
- ▶ Keep away from children and other animals, especially the chewable or flavored forms of the drug.

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

There are no specific precautions required when handling small animal products of this medication unless you are allergic to it. Wash your hands after handling any medication.

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

- ▶ Dispose of ivermectin with pyrantel carefully as it can be toxic to fish, turtles, and other wildlife.
- ▶ Do not flush this medication down the toilet or wash it down the sink. If a community drug "take-back" program is available, use this option. If there is no take-back program, mix the drug with coffee grounds or cat litter (to make it undesirable to children and animals and unrecognizable to people who might go through your trash), place the mixture in a sealable plastic bag to keep it from leaking out, and throw the bag out with the regular trash.
- ▶ Do not save leftover medication for future use or give it to others to use.

**What other information is important for this medication?**

- ▶ Use of this drug may not be allowed in certain animal competitions. Check rules and regulations before entering your animal in a competition while this medication is being administered.

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

# Ivermectin with Pyrantel Pamoate and Praziquantel (Dogs)

(eye-ver-mek-tin with pi-ran-tel pam-oh-ate and pra-zi-kwon-tel)

**Category:** Antiparasitic

**Other Names for this Medication:** Iverhart Max®, QuadriGuard®

**Common Dosage Forms: Veterinary: Dogs:** Chewable Oral Tablets: Ivermectin/Pyrantel/Praziquantel: 34 mcg/28.5 mg/28.5 mg, 68 mcg/57 mg/57 mg, 136 mcg/114 mg/114 mg, & 272 mcg/228 mg/228 mg.

**Human:** None.



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

- ▶ Antiparasitic combination that is used in dogs to prevent heartworm disease and for the treatment and control of roundworms, hookworms, and tapeworms.
- ▶ Can be offered to the dog by hand or added to a small amount of dog food. It is best if the dog chews the tablet before swallowing. If your dog normally swallows treats whole (without chewing), you can break the tablet into pieces and feed the pieces to the dog.
- ▶ Overdoses can be serious; keep chewable and flavored tablets out of reach of children and animals.
- ▶ Usually well tolerated. If you see any signs of central nervous system toxicity (see adverse effects section below), contact your veterinarian immediately.
- ▶ Dispose of unused product carefully; it is toxic to fish and wildlife.

## How is this medication useful?

The drug combination of ivermectin, pyrantel pamoate, and praziquantel is used in dogs to prevent heartworm disease and for the treatment and control of roundworms, hookworms, and tapeworms. The FDA (U.S. Food & Drug Administration) has approved this drug for use in dogs. The FDA allows veterinarians to prescribe and use 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.

- ▶ Other medications can interact with this drug combination, so be sure to tell your veterinarian and pharmacist what medications (including vitamins, supplements, or herbal therapies) you give your animal, including the amount and time you give each.
- ▶ Tell your veterinarian about any conditions or diseases your pet may have now or may have 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. Ivermectin with pyrantel is considered safe to use during pregnancy; however, the safe use of the combination product that also contains praziquantel has not been evaluated.
- ▶ 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 dogs that are allergic to pyrantel, praziquantel, ivermectin, or other avermectin drugs.

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

- ▶ In dogs under 8 weeks old.
- ▶ In sick, weak, frail, or underweight dogs, and dogs weighing less than 10 lb.
- ▶ In animals that have not first tested negative for heartworm infection. When ivermectin is given to animals with immature heartworms, a severe reaction can occur.

In any of these cases, talk to your veterinarian about the possible risks versus benefits of the medication.

## What are the side effects of this medication?

When the drug is used as directed, side effects are uncommon.

**Reported side effects, which are usually not serious, include:**

- ▶ Vomiting, diarrhea, decreased appetite, licking lips, and belching (burping).
- ▶ Tiredness, lack of energy, limpness, salivation (drooling), and shaking.

You do not have to be overly concerned if you see any of these unless they are severe, are persistent, or worsen. Contact your veterinarian if this happens.

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

Overdoses of ivermectin containing products can be very serious, especially in dog breeds that may have the *ABCB1-1Δ (MDR-1)* genetic mutation. Signs of toxicity can include: coma, seizures, weakness, clumsiness, dilated (big) pupils, trembling, excessive salivation/drooling/foaming, lethargy (tiredness, lack of energy), dog pressing its head against the wall, and blindness. If you witness or suspect an overdose, contact your veterinarian or an animal poison control center for further advice. Animal poison control centers that are open 24 hours a day include: **Pet Poison HELPLINE** (855-764-7661) and **ASPCA Animal Poison Control Center** (888-426-4435); a consultation fee is charged for these services.

### How should this medication be given?

For this medication to work, give it exactly as your veterinarian has prescribed. It's a good idea to always check the prescription label to be sure you are giving the drug correctly.

- ▶ Remove only one chewable tablet at a time from the foil-backed blister card. Return the card with the remaining chewable tablets to its box to protect the product from light.
- ▶ Because most dogs like to eat these tablets, they can be offered by hand or be added to a small amount of dog food. It is best if the dog chews the tablet before swallowing. If your dog normally swallows treats whole (without chewing), you can break the tablet into pieces and feed the pieces to the dog.
- ▶ Be sure your dog eats the complete dose. Watch your dog for a few minutes after dosing to be sure that part of the dose is not rejected or spit out. If it is suspected that any of the dose has not been eaten, giving another dose is recommended.
- ▶ If you have difficulty getting your animal to take the medicine, contact your veterinarian or pharmacist for tips to help with dosing and to reduce the stress of medication time.
- ▶ This medication is given on a monthly basis. Be sure you understand how long your veterinarian wants you to continue giving this medication (eg, year round or specific months). Prescription refills may be necessary before the therapy will be complete. Before stopping this medication, talk to your veterinarian, as there may be important reasons to continue its use.

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

If you miss a dose, give it when you remember and then wait the amount of time between doses recommended by your veterinarian before giving another dose. Do not double up or give extra doses. When using this drug combination for heartworm prevention: If more than 8 weeks in a row have passed without giving the medication, start giving it as soon as you remember and then give every 30 days. If this occurs, it is recommend to have your animal tested for heartworm infection 6 months later to ensure the break in treatment did not cause your animal to become infected.

### How should I store this medication?

- ▶ Store this medication in the original prescription container or an approved dosage reminder container (ie, pill minder) at room temperature and protected from light.
- ▶ Keep away from children and other animals, especially the chewable or flavored forms of the drug.

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

There are no specific precautions required when handling this medication unless you are allergic to it. Wash your hands after handling any medication.

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

- ▶ Dispose of ivermectin with pyrantel and praziquantel carefully as it is toxic to fish, turtles, and other wildlife.
- ▶ Do not flush this medication down the toilet or wash it down the sink. If a community drug "take-back" program is available, use this option. If there is no take-back program, mix the drug with coffee grounds or cat litter (to make it undesirable to children and animals and unrecognizable to people who might go through your trash), place the mixture in a sealable plastic bag to keep it from leaking out, and throw the bag out with the regular trash.
- ▶ Do not save leftover medication for future use or give it to others to use.

### What other information is important for this medication?

- ▶ Use of this drug may not be allowed in certain animal competitions. Check rules and regulations before entering your animal in a competition while this medication is being administered.

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

# Praziquantel and Ivermectin (Horses)

(pra-zi-kwon-tel & eye-ver-mek-tin)

**Category:** Antiparasitic

**Other Names for this Medication:** Equimax®, Zimecterin Gold®

**Common Dosage Forms: Veterinary:** Oral Paste (in syringes): ivermectin 1.87%/praziquantel 14.03% (Equimax®); ivermectin 1.55%/praziquantel 7.75% (Zimecterin® Gold). **Human:** None.

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

- ▶ Combination oral paste to treat gastrointestinal parasites, including tapeworms.
- ▶ Usually well tolerated but loose stools are possible after treatment.

## How is this medication useful?

Praziquantel with ivermectin combination paste is used in horses to treat a variety of parasites, including roundworms, bots, and tapeworms.

The FDA (U.S. Food & Drug Administration) has approved this drug for use in horses or ponies that are 4 weeks of age and older. The FDA does allow veterinarians to prescribe and use 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 combination will work in your animal. Be sure to discuss the following with your veterinarian so together you can make the best treatment decisions.

- ▶ Other drugs that can affect the way this drug works, so be sure to tell your veterinarian and pharmacist what medications (including vitamins, supplements, or herbal therapies) you give your animal, including the amount and time you give each.
- ▶ Tell your veterinarian about any conditions or diseases your animal 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 animal 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 horses:

- ▶ That are allergic to either drug.
- ▶ That will be used for human consumption.
- ▶ That are less than 4 weeks old.

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

## What are the side effects of this medication?

### Side effects that usually are not serious include:

- ▶ Loose stools.

You don't have to be overly concerned if you see this effect unless it is severe, worsens, or continues to be a problem. Contact your veterinarian if this happens.

### Side effects that may be serious or indicate a serious problem:

- ▶ Swelling and itching reactions after treatment, especially in horses with heavy infections of neck threadworm (*Onchocerca* spp microfilariae). If you see this, contact your veterinarian immediately.

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

If you witness or suspect an overdose, contact your veterinarian or an animal poison control center for further advice. Animal poison control centers that are open 24 hours a day include: **Pet Poison HELPLINE** (855-764-7661) and **ASPCA Animal Poison Control Center** (888-426-4435); a consultation fee is charged for these services.

## How should this medication be given?

For this medication to work, give it exactly as your veterinarian has prescribed. It's a good idea to always check the prescription label to be sure you are giving the drug correctly.

- ▶ There are at least two separate equine oral paste products that contain different concentrations of each active ingredient. Follow the specific directions for your selected product.
- ▶ While holding plunger, turn the knurled ring on the plunger a quarter turn to the left, and slide it so that the side nearest to the barrel is at the prescribed weight marking.
- ▶ Lock the ring in place by making a 1/4 turn to the right.
- ▶ Make sure the horse's mouth contains no feed.
- ▶ Remove the cover from the tip of the syringe.
- ▶ Insert the syringe tip into the horse's mouth at the space between the teeth.
- ▶ Depress the plunger as far as it will go, depositing paste on the back of the tongue.
- ▶ Immediately raise the horse's head for a few seconds after dosing.
- ▶ If you have difficulty getting your horse to take the medicine, contact your veterinarian or pharmacist for tips to help with dosing and reducing the stress of medication time.

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

If you miss a dose, give it when you remember and then wait the amount of time between doses recommended by your veterinarian before giving another dose. Do not double-up or give extra doses.

**How should I store this medication?**

- ▶ Store this medication in the original container at room temperature and protected from light.
- ▶ Keep away from children and other animals.

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

There are no specific precautions required when handling this medication unless you are allergic to it. Wash your hands after handling any medication.

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

- ▶ Do not flush this medication down the toilet or wash it down the sink. If a community drug "take-back" program is available, use this option. If there is no take-back program, mix the drug with coffee grounds or cat litter (to make it undesirable to children and animals and unrecognizable to people who might go through your trash), place the mixture in a sealable plastic bag to keep it from leaking out, and throw the bag out with the regular trash.
- ▶ Do not save left over medication for future use or give it to others to use.

**What other information is important for this medication?**

- ▶ For most animals, the dead worms are digested; however, if your animal had many tapeworms, some may be seen in the feces.
- ▶ Use of this drug may not be allowed in certain animal competitions. Check rules and regulations before entering your animal in a competition while this medication is being administered.

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