|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name Of Drug** | **Mechanism of Action** | **Parasite it affects** | **Dose** | **Contraindications and Side effects** | **Route of Administration** | **Other Information** |
| Thiabendazole | Binds to nematode tubulin (specifically β-tubulin). Binding to β-tubulin prevents dimerization with α-tubulin and the polymerization of tubulin oligomers into microtubules which are essential structural units of many organelles and processes such as protein assembly, energy metabolism and mitosis. Inhibits fumarate reductase. Reduced ATP production leads to cell death also inhibits glucose uptake hence glycogen depletion and cell death. | Ruminants:  Most G.I nematodes including Haemonchus spp., Trichostrongylus spp., Bunostomum spp., Oesphagostomum spp. and Strongyloides spp.  Horses:  Most large Strongyles, Cyathostomes, Mature Oxyuris equi, small pinworms (Probstmayria vivipara), Trichostrongylus axei  Canine:  Low doses for control of hookworms, ascarids and whipworms | 2 grams per 100 pounds of  body weight | EPA toxicity class III - slightly toxic  Should not be used in animals with known hypersensitivity or [allergy](javascript:%20void(0);) to the drug.  Should be avoided in pregnant animals | Oral | Has good antifungal properties |
| Cambendazole | Horses:  20 mg/kg | Not for use in horses intended for food  Do not administer to pregnant mares during first 3 months | Oral |  |
| Fenbendazole | Dogs: ascarids (Toxocara canis, T. leonina), Hookworms (Ancylostoma caninum, Uncinaria stenocephala), whipworms (Trichuris vulpis), and tapeworms (Taenia pisiformis). | Dogs:  Ascarids, hookworms, whipworms, and tapeworms:  -50 mg/kg PO for 3 consecutive days  Capillaria plica:  50 mg/kg once daily for 3 days; repeat a single 50 mg/kg dose 3 weeks later  Capillaria aerophilia:  25 - 50 mg/kg q12h for 10-14 days  Filaroides hirthi:  50 mg/kg PO once daily for 14 days. Symptoms may worsen during therapy, presumably  due to a reaction when the worm dies  Taenia spp. Tapeworms:  50 mg/kg PO for 3 days.  Paragonimus kellicoti:  50 - 100 mg/kg PO divided twice daily for 10-14 days  Trichuris Colitis: Typhlitis:  50 mg/kg PO once daily for 3 consecutive days; repeat in 2-3 weeks and again in 2 months  Crenosoma vulpis:  50 mg/kg PO once daily for 3 days  Giardia:  50 mg/kg PO once daily for 3 days  Eucoleus boehmi:  50 mg/kg PO once daily for 10-14 days; improvement may only be temporary  Cats:  Ascarids, hookworms, Strongyloides, and tapeworms:  50 mg/kg PO for 5 days.  lungworms (Aelurostrongylus abstrusus):  20 mg/kg PO once daily for 5 days; repeat after 5 days.  lungworms (Capillaria aerophilia):  50 mg/kg PO for 10 days.  Capillaria feliscati:  25 mg/kg bid PO for 3-10 days.  Paragonimus kellicoti:  50 mg/kg PO daily for 10 days.  Cattle:  Haemonchus contortus, Ostertagia ostertagi, Trichostrongylus axei,  Bunostomum phlebotomum, Nematodirus helvetianus, Cooperia spp., Trichostrongylus colubriformis,  Oesophagostomum radiatum, and Dictyocaulus vivaparus:  -5 mg/kg PO  Horses:  -5 mg/kg PO; 10 mg/kg once daily for 5 days to treat S. vulgaris in foals.  -5 mg/kg PO; 10 mg/kg for ascarids  -For treatment of migrating large strongyles: 50 mg/kg PO for 3 consecutive days, or 10  mg/kg for 5 consecutive days  Swine:  -5 mg/kg PO; 3 mg/kg in feed for 3 days; 10 mg/kg for ascarids  -For whipworms in potbellied pigs: 9 mg/kg PO for days  Sheep and goat:  5 mg/kg in feed for 3 days  Birds:  Ascaris:  10 - 50 mg/kg PO once; repeat in 10 days. Do not use during molt  flukes or microfilaria:  10 - 50 mg/kg PO once daily for 3 days. |  | Oral |  |
| Albendazole | Ostertagia ostertagi, Haemonchus spp., Trichostrongylus spp., Nematodius spp., Cooperia spp.,  Bunostomum phlebotomum, Oesphagostomum spp., Dictacaulus spp., Fasciola hepatica (adults),  and Moniezia spp, Capillaria aerophilia:, Filaroides hirthi and Paragonimus kellicoti | Dogs:  Filaroides hirthi:  -50 mg/kg q12h PO for 5 days; repeat in 21 days. Symptoms may suddenly worsen during therapy, presumably due to a reaction to worm death  -25 mg/kg PO q12h for 5 days; may repeat in 2 weeks  Filaroides osleri  -9.5 mg/kg for 55 days or 25 mg/kg PO bid for 5 days. Repeat therapy in 2 weeks.  Capillaria plica:  50 mg/kg q12h for 10-14 days. May cause anorexia  Paragonimus kellicotti:  50 mg/kg PO per day for 21 days.  Giardia:  25 mg/kg PO q12h for 4 doses  Cats:  Paragonimus kellicotti:  50 mg/kg PO per day for 21 days  Giardia:  25 mg/kg PO bid for 5 days  Cattle:  -susceptible parasites:  10 mg/kg PO  -7.5 mg/kg PO; 15 mg/kg PO for adult liver flukes  -For gastrointestinal cestodes: 10 mg/kg PO  Swine:  5 - 10 mg/kg PO.  Sheep and goat:  -7.5 mg/kg PO; 15 mg/kg PO for adult liver flukes. | Albendazole is only approved for beef and non-lactating dairy cattle, not lactating  Albendazole has been associated with teratogenic and  embryotoxic effects in rats, rabbits and sheep when given early in pregnancy  Dogs treated at 50 mg/kg twice daily may develop anorexia.  Cats may exhibit symptoms of mild lethargy, depression, anorexia, and resistance to taking the  medication when Albendazole is used to treat Paragonimus  Doses of 300 mg/kg (30X recommended) and 200 mg/kg have caused death in cattle and sheep, respectively. Doses of 45 mg/kg (4.5X) those recommended did not cause any adverse effects in cattle tested. Cats receiving 100 mg/kg/day for 14-21 days showed signs of  weight loss, neutropenia and mental dullness | Oral | Insoluble in water and soluble in alcohol.  Albendazole suspension should be stored at room temperature(  15-30¡C); avoid freezing. Shake well before using. |
| \*Clorsulon | Clorsulon inhibits the glycolytic enzymes 3-phosphoglycerate kinase and phosphoglyceromutase, thereby blocking the Emden-Myerhof glycolytic pathway.  The fluke is deprived of its main metabolic energy source and dies. | Immature and adult forms of Fasciola hepatica (Liver fluke) in cattle. | Cattle:  Fasciola hepatica  -7 mg/kg PO; deposit suspension over the back of the tongue.  Sheep:  Fasciola hepatica  -7 mg/kg PO. | No milk withdrawal time has been determined, and the drug is labeled not to be used in female dairy cattle of breeding age.  Clorsulon is considered to be safe to use in pregnant or breeding animals. | Oral | May be used for beef ad lactating dairy cattle  Albendazole and Clorsulon (Curatrem®) are available for treatment of liver flukes.  Ivermectin and Clorsulon (Ivomec-F® or Ivomec Plus®) used for simultaneous treatment of Fasciola and nematodes in cattle  Unless otherwise instructed by the manufacturer, clorsulon should be stored at room temperature (15-30¡C). |