

ANGIOSTRONGYLIASIS (*Angiostrongylus cantonensis*, *Angiostrongylus costaricensis*)

Drug of choice: *A. cantonensis* causes predominantly neurotropic disease. *A. costaricensis* causes gastrointestinal disease. Most patients infected with either species have a self-limited course and recover completely. Analgesics, corticosteroids and careful removal of CSF at frequent intervals can relieve symptoms from increased intracranial pressure.¹ Treatment of *A. cantonensis* is controversial and varies across endemic areas. No antihelminthic drug is proven to be effective and some patients have worsened with therapy.² **Mebendazole** and a corticosteroid, however, appear to shorten the course of infection.³ **Albendazole** has also relieved symptoms of angiostrongyliasis.⁴

1. V Lo Re III and SJ Gluckman, Am J Med 2003; 114:217.
2. TJ Slom et al, N Engl J Med 2002; 346:668.
3. H-C Tsai et al, Am J Med 2001; 111:109; V Chotmongkol et al, Am J Trop Med Hyg 2006; 74:1122.
4. XG Chen et al, Emerg Infect Dis 2005; 11:1645.

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MANUFACTURERS OF DRUGS USED TO TREAT PARASITIC INFECTIONS

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| albendazole – <i>Albenza</i> (GlaxoSmithKline) | levamisole – <i>Ergamisol</i> (Janssen) |
| <i>Albenza</i> (GlaxoSmithKline) – albendazole | lumefantrine/artemether – <i>Coartem</i> , <i>Riamet</i> (Novartis) |
| <i>Alinia</i> (Roemark) – nitazoxanide | <i>Malarone</i> (GlaxoSmithKline) – atovaquone/proguanil |
| <i>AmBisome</i> (Gilead) – amphotericin B, liposomal amphotericin B – <i>Fungizone</i> (Apothecon), others | malathion – <i>Ovide</i> (Medicis) |
| amphotericin B, liposomal – <i>AmBisome</i> (Gilead) | mebendazole – <i>Vermox</i> (McNeil), others |
| <i>Ancobon</i> (Valeant) – flucytosine | mefloquine – <i>Lariam</i> (Roche) |
| § <i>Antiminth</i> (Pfizer) – pyrantel pamoate | § meglumine antimonate – <i>Glucantime</i> (Aventis, France) |
| • <i>Aralen</i> (Sanofi) – chloroquine HCl and chloroquine phosphate | † melarsoprol – <i>Mel-B</i> |
| § artemether – <i>Artenam</i> (Arenco, Belgium) | † <i>Mel-B</i> – melarsoprol |
| § artemether/lumefantrine – <i>Coartem</i> , <i>Riamet</i> (Novartis) | <i>Mepron</i> (GlaxoSmithKline) – atovaquone |
| § <i>Artenam</i> (Arenco, Belgium) – artemether | metronidazole – <i>Flagyl</i> (Pfizer), others |
| § artesunate – (Guilin No. 1 Factory, People's Republic of China) | § miconazole – <i>Monistat i.v.</i> |
| atovaquone – <i>Mepron</i> (GlaxoSmithKline) | § miltefosine – <i>Impavido</i> (Zentaris, Germany) |
| atovaquone/proguanil – <i>Malarone</i> (GlaxoSmithKline) | § <i>Monistat i.v.</i> – miconazole |
| azithromycin – <i>Zithromax</i> (Pfizer), others | <i>NebuPent</i> (Fujisawa) – pentamidine isethionate |
| • <i>Bactrim</i> (Roche) – TMP/Sulfa | § niclosamide – <i>Yomesan</i> (Bayer, Germany) |
| § benznidazole – <i>Rochagan</i> (Brazil) | † nifurtimox – <i>Lampit</i> (Bayer, Germany) |
| • <i>Biaxin</i> (Abbott) – clarithromycin | nitazoxanide – <i>Alinia</i> (Roemark) |
| § <i>Biltricide</i> (Bayer) – praziquantel | <i>Nix</i> (GlaxoSmithKline) – permethrin |
| † bithionol – <i>Bitin</i> (Tanabe, Japan) | • <i>Nizoral</i> (Janssen) – ketoconazole |
| † <i>Bitin</i> (Tanabe, Japan) – bithionol | § ornidazole – <i>Tiberal</i> (Roche, France) |
| § <i>Brolene</i> (Aventis, Canada) – propamidine isethionate | <i>Ornidyl</i> (Aventis) – eflornithine (Difluoromethylornithine, DFMO) |
| chloroquine HCl and chloroquine phosphate – <i>Aralen</i> (Sanofi), others | <i>Ovide</i> (Medicis) – malathion |
| clarithromycin – <i>Biaxin</i> (Abbott), others | § oxamniquine – <i>Vansil</i> (Pfizer) |
| • <i>Cleocin</i> (Pfizer) – clindamycin | § <i>Paludrine</i> (AstraZeneca, United Kingdom) – proguanil |
| clindamycin – <i>Cleocin</i> (Pfizer), others | paromomycin – <i>Humatin</i> (Monarch); <i>Leshcutan</i> (Teva, Israel; topical formulation not available in US) |
| <i>Coartem</i> (Novartis) – artemether/lumefantrine | <i>Pentam 300</i> (Fujisawa) – pentamidine isethionate |
| crotamiton – <i>Eurax</i> (Westwood-Squibb) | pentamidine isethionate – <i>Pentam 300</i> (Fujisawa), <i>NebuPent</i> (Fujisawa) |
| dapsone – (Jacobus) | † <i>Pentostam</i> (GlaxoSmithKline, United Kingdom) – sodium stibogluconate |
| § <i>Daraprim</i> (GlaxoSmithKline) – pyrimethamine USP | permethrin – <i>Nix</i> (GlaxoSmithKline), <i>Elimite</i> (Allergan) |
| † diethylcarbamazine citrate (DEC) – <i>Hetrazan</i> | § praziquantel – <i>Biltricide</i> (Bayer) |
| • <i>Diflucan</i> (Pfizer) – fluconazole | primaquine phosphate USP |
| § diloxanide furoate – <i>Furamide</i> (Boots, United Kingdom) | § proguanil – <i>Paludrine</i> (AstraZeneca, United Kingdom) |
| doxycycline – <i>Vibramycin</i> (Pfizer), others | proguanil/atovaquone – <i>Malarone</i> (GlaxoSmithKline) |
| eflornithine (Difluoromethylornithine, DFMO) – <i>Ornidyl</i> (Aventis) | § propamidine isethionate – <i>Brolene</i> (Aventis, Canada) |
| § <i>Egaten</i> (Novartis) – triclabendazole | § pyrantel pamoate – <i>Antiminth</i> (Pfizer) |
| <i>Elimite</i> (Allergan) – permethrin | pyrethrins and piperonyl butoxide – <i>RID</i> (Pfizer), others |
| <i>Ergamisol</i> (Janssen) – levamisole | § pyrimethamine USP – <i>Daraprim</i> (GlaxoSmithKline) |
| <i>Eurax</i> (Westwood-Squibb) – crotamiton | <i>Qualaquin</i> – quinine sulfate (Mutual Pharmaceutical Co/AR Scientific) |
| • <i>Flagyl</i> (Pfizer) – metronidazole | quinacrine |
| § <i>Flisint</i> (Sanofi-Aventis, France) – fumagillin | * quinidine gluconate (Eli Lilly) |
| fluconazole – <i>Diflucan</i> (Pfizer), others | § quinine dihydrochloride |
| flucytosine – <i>Ancobon</i> (Valeant) | quinine sulfate – <i>Qualaquin</i> (Mutual Pharmaceutical Co/AR Scientific) |
| § fumagillin – <i>Flisint</i> (Sanofi-Aventis, France) | <i>Riamet</i> (Novartis) – artemether/lumefantrine |
| • <i>Fungizone</i> (Apothecon) – amphotericin | • <i>RID</i> (Pfizer) – pyrethrins and piperonyl butoxide |
| § <i>Furamide</i> (Boots, United Kingdom) – diloxanide furoate | • <i>Rifadin</i> (Aventis) – rifampin |
| § furazolidone – <i>Furozone</i> (Roberts) | rifampin – <i>Rifadin</i> (Aventis), others |
| § <i>Furozone</i> (Roberts) – furazolidone | § <i>Rochagan</i> (Brazil) – benznidazole |
| † <i>Germanin</i> (Bayer, Germany) – suramin sodium | * <i>Rovamycine</i> (Aventis) – spiramycin |
| § <i>Glucantime</i> (Aventis, France) – meglumine antimonate | † sodium stibogluconate – <i>Pentostam</i> (GlaxoSmithKline, United Kingdom) |
| † <i>Hetrazan</i> – diethylcarbamazine citrate (DEC) | * spiramycin – <i>Rovamycine</i> (Aventis) |
| <i>Humatin</i> (Monarch) – paromomycin | • <i>Sporanox</i> (Janssen-Ortho) – itraconazole |
| § <i>Impavido</i> (Zentaris, Germany) – miltefosine | <i>Stromectol</i> (Merck) – ivermectin |
| iodoquinol – <i>Yodoxin</i> (Glenwood), others | sulfadiazine – (Eon) |
| itraconazole – <i>Sporanox</i> (Janssen-Ortho), others | † suramin sodium – <i>Germanin</i> (Bayer, Germany) |
| ivermectin – <i>Stromectol</i> (Merck) | § <i>Tiberal</i> (Roche, France) – ornidazole |
| ketoconazole – <i>Nizoral</i> (Janssen), others | |
| † <i>Lampit</i> (Bayer, Germany) – nifurtimox | |
| <i>Lariam</i> (Roche) – mefloquine | |
| § <i>Leshcutan</i> (Teva, Israel) – topical paromomycin | |

(continued)

<i>Tindamax</i> (Mission) – tinidazole	• <i>Vermox</i> (McNeil) – mebendazole
tinidazole – <i>Tindamax</i> (Mission)	• <i>Vibramycin</i> (Pfizer) – doxycycline
TMP/Sulfa – <i>Bactrim</i> (Roche), others	• <i>Yodoxin</i> (Glenwood) – iodoquinol
§ triclabendazole – <i>Egaten</i> (Novartis)	§ <i>Yomesan</i> (Bayer, Germany) – niclosamide
§ <i>Vansil</i> (Pfizer) – oxamniquine	• <i>Zithromax</i> (Pfizer) – azithromycin

* Available in the US only from the manufacturer.

§ Not available commercially. It may be obtained through compounding pharmacies such as Panorama Compounding Pharmacy, 6744 Balboa Blvd, Van Nuys, CA 91406 (800-247-9767) or Medical Center Pharmacy, New Haven, CT (203-688-6816). Other compounding pharmacies may be found through the National Association of Compounding Pharmacies (800-687-7850) or the Professional Compounding Centers of America (800-331-2498, www.pccarx.com).

† Available from the CDC Drug Service, Centers for Disease Control and Prevention, Atlanta, Georgia 30333; 404-639-3670 (evenings, weekends, or holidays: 770-488-7100).

• Also available generically.

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