

CRYPTOSPORIDIOSIS (*Cryptosporidium*)

Drug	Adult dosage	Pediatric dosage
Non-HIV infected		
Drug of choice:	Nitazoxanide ¹	500 mg PO bid x 3d
		1-3yrs: 100 mg PO bid x 3d 4-11yrs: 200 mg PO bid x 3d >12yrs: 500 mg PO q12h x 3d
HIV infected		
Drug of choice:	No drug has proven efficacy against cryptosporidiosis in advanced AIDS. ² Treatment with HAART is the mainstay of therapy. Nitazoxanide , ³ paromomycin , ⁴ or a combination of paromomycin and azithromycin ⁵ may be tried to decrease diarrhea and recalcitrant malabsorption of antimicrobial drugs, which can occur with chronic cryptosporidiosis.	

1. Nitazoxanide may be effective against a variety of protozoan and helminth infections (DA Bobak, *Curr Infect Dis Rep* 2006; 8:91; E Diaz et al, *Am J Trop Med Hyg* 2003; 68:384). It was effective against mild to moderate amebiasis, 500 mg bid x 3d, in a recent study (JF Rossignol et al, *Trans R Soc Trop Med Hyg* 2007 Oct; 101:1025 E pub 2007 July 20). It is FDA-approved only for treatment of diarrhea caused by *Giardia* or *Cryptosporidium* (Med Lett Drugs Ther 2003; 45:29). Nitazoxanide is available in 500-mg tablets and an oral suspension; it should be taken with food.
2. I Abubakar et al, *Cochrane Database Syst Rev* 2007; 1:CD004932.
3. JF Rossignol, *Aliment Pharmacol Ther* 2006; 24:807.
4. P Maggi et al, *Clin Infect Dis* 2000; 33:1609.
5. NH Smith et al, *J Infect Dis* 1998; 178:900.

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MANUFACTURERS OF DRUGS USED TO TREAT PARASITIC INFECTIONS

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

(continued)

- Riamet* (Novartis) – artemether/lumefantrine
- *RID* (Pfizer) – pyrethrins and piperonyl butoxide
- *Rifadin* (Aventis) – rifampin
- rifampin – *Rifadin* (Aventis), others
- § *Rochagan* (Brazil) – benznidazole
- * *Rovamycine* (Aventis) – spiramycin
- † sodium stibogluconate – *Pentostam*
(GlaxoSmithKline, United Kingdom)
- * spiramycin – *Rovamycine* (Aventis)
- *Sporanox* (Janssen-Ortho) – itraconazole
- *Stromectol* (Merck) – ivermectin
- sulfadiazine – (Eon)
- † suramin sodium – *Germanin* (Bayer, Germany)
- § *Tiberal* (Roche, France) – ornidazole
- *Tindamax* (Mission) – tinidazole
- tinidazole – *Tindamax* (Mission)
- TMP/Sulfa – *Bactrim* (Roche), others
- § triclabendazole – *Egaten* (Novartis)
- § *Vansil* (Pfizer) – oxamniquine
- *Vermox* (McNeil) – mebendazole
- *Vibramycin* (Pfizer) – doxycycline
- *Yodoxin* (Glenwood) – iodoquinol
- § *Yomesan* (Bayer, Germany) – niclosamide
- *Zithromax* (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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