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2009 REPORT OF THE COMMITTEE ON INFECTIOUS DISEASES

Errata

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Page 355: In Table 3.22, last column, under “Unknown or Not Tested,” the second bullet *should be changed from* **If inadequate, no treatment to If adequate, no treatment.** ([See page 3 for revised text.](#))

Page 494: Under Epidemiology, the 5th sentence *should be changed from* **Human-to-human spread has not been documented.** *to* **Human-to-human spread has been documented vertically from mother to neonate, horizontally from colonized humans, and by contaminated blood products.** ([See page 4 for revised text.](#))

Page 566: In Table 3.61, in the May row, under “29 Weeks, 0 Days Through 31 Weeks, 6 Days of Gestation and <6Months of Age at Start of Season,” the maximum number of doses *should be changed from* **0^d** *to* **5.** ([See page 5 for revised text.](#))

Page 645: In Table 3.75, under “Clinical Status,” the text for (a)(iv) *should be changed from* **maternal evidence of reinfection or relapse (less than fourfold decrease in titers)** *to* **maternal evidence of reinfection or relapse (fourfold or greater increase in titers).** ([See page 6 for revised text.](#))

Pages 745–746: In Table 4.1, the following changes should be made:

- In the first column, the footnote ^e notation next to **Carbapenems** and **Metronidazole** should be *removed*.
- In the first column, the footnote ^e notation next to **Ampicillin** should be *changed to* a footnote ^d notation.
- In the footnotes, footnote ^e should be *deleted* from table, removing the text reading: **Safety in infants and children has not been established. Meropenem is preferred if a carbapenem is to be used in newborn infants.** ([See page 7 and 8 for revised text.](#))

Pages 784–810: The *Medical Letter* has informed the American Academy of Pediatrics of the following important pediatric dosage corrections in *The Medical Letter* table reprinted in the *Red Book*. In Table 4.9, the following changes should be made:

- **Page 789:** Under **CYCLOSPORIASIS** (*Cyclospora cayetanensis*), the pediatric dosage for **trimethoprim/sulfamethoxazole** should be changed from **TMP 5 mg/kg/SMX 25 mg/kg/d PO in 2 doses × 7–10d** to **TMP 10 mg/kg/SMX 50 mg/kg/d PO in 2 doses × 7–10d**. ([See page 9 for revised text.](#))
- **Page 793:** Under **GIARDIASIS** (*Giardia duodenalis*), the pediatric dosage for **quinacrine** should be changed from **2 mg/kg/d PO in 3 doses × 5d (max 300 mg/d)** to **6 mg/kg/d PO in 3 doses × 5d (max 300 mg/d)**. ([See page 10 for revised text.](#))
- **Page 794:** Under **ISOSPORIASIS** (*Isospora belli*), the pediatric dosage for **trimethoprim/sulfamethoxazole** should be changed from **TMP 5 mg/kg/d/SMX 25 mg/kg/d PO in 2 doses × 10d** to **TMP 10 mg/kg/d/SMX 50 mg/kg/d PO in 2 doses × 10d**. ([See page 11 for revised text.](#))
- **Page 798:** Under **MALARIA, Treatment of**, the pediatric dosage for **tetracycline** should be changed from **6.25 mg/kg/d in 4 doses × 7d** to **25 mg/kg/d in 4 doses × 7d**. ([See page 12 for revised text.](#))

Table 3.22. Recommendations for Hepatitis B Prophylaxis After Percutaneous Exposure to Blood That Contains or Might Contain HBsAg^a

Exposed Person	Treatment When Source Is		
	HBsAg Positive	HBsAg Negative	Unknown or Not Tested
Unimmunized	Administer HBIG ^b (1 dose) and initiate hepatitis B vaccine series	Initiate hepatitis B vaccine series	Initiate hepatitis B vaccine series
Previously immunized			
Known responder	No treatment	No treatment	No treatment
Known nonresponder	HBIG (1 dose) and initiate reimmunization ^c or HBIG (2 doses)	No treatment	If known high-risk source, treat as if source were HBsAg positive
Response unknown	Test exposed person for anti-HBs ^d and administer vaccine booster dose ^e	No treatment	Test exposed person for anti-HBs ^d <ul style="list-style-type: none"> • If inadequate, vaccine booster dose^e • If adequate, no treatment

HBsAg indicates hepatitis B surface antigen; HBIG, Hepatitis B Immune Globulin; anti-HBs, antibody to HBsAg.

^aCenters for Disease Control and Prevention. Updated US Public Health Service guidelines for the management of occupational exposures to HBV, HCV, and HIV and recommendations for postexposure prophylaxis. *MMWR Recomm Rep* 2001;50(RR-11):1–52.

^bDose of HBIG, 0.06 mL/kg, intramuscularly.

^cThe option of giving 1 dose of HBIG (0.06 mL/kg) and reinitiating the vaccine series is preferred for nonresponders who have not completed a second 3-dose vaccine series. For people who previously completed a second vaccine series but failed to respond, 2 doses of HBIG (0.06 mL/kg) are preferred, 1 dose as soon as possible after exposure and the second 1 month later.

^dAdequate anti-HBs is ≥ 10 mIU/mL.

^eThe person should be evaluated for antibody response after the vaccine booster dose. For people who receive HBIG, anti-HBs testing should be performed when passively acquired antibody from HBIG no longer is detectable (eg, 4–6 months); for people who did not receive HBIG, anti-HBs testing should be performed 1 to 2 months after the vaccine booster dose. If anti-HBs is inadequate (less than 10 mIU/mL) after the vaccine booster dose, 2 additional doses should be administered to complete a 3-dose reimmunization series.

EPIDEMIOLOGY: *Pasteurella* species are found in the oral flora of 70% to 90% of cats, 25% to 50% of dogs, and many other animals. Transmission can occur from the bite or scratch of a cat or dog or, less commonly, from another animal. Respiratory tract spread from animals to humans also occurs. In a significant proportion of cases, no animal exposure can be identified. **Human-to-human spread has been documented vertically from mother to neonate, horizontally from colonized humans, and by contaminated blood products.**

Table 3.61. Maximum Number of Palivizumab Doses for RSV Prophylaxis of Preterm Infants Without Chronic Lung Disease, on the Basis of Birth Date, Gestational Age, and Presence of Risk Factors (Shown for Geographic Areas Beginning Prophylaxis on November 1)^a

Month of Birth	Maximum No. of Doses for Season Beginning November 1		
	≤28 Weeks, 6 Days of Gestation and <12 Months of Age at Start of Season	29 Weeks, 0 Days Through 31 Weeks, 6 Days of Gestation and <6 Months of Age at Start of Season	32 Weeks, 0 Days Through 34 Weeks, 6 Days of Gestation and With Risk Factor ^b
November 1– March 31 of previous RSV season	5 ^c	0 ^d	0 ^c
April	5	0 ^d	0 ^c
May	5	5	0 ^c
June	5	5	0 ^c
July	5	5	0 ^c
August	5	5	1 ^f
September	5	5	2 ^f
October	5	5	3 ^f
November	5	5	3 ^f
December	4	4	3 ^f
January	3	3	3 ^f
February	2	2	2 ^f
March	1	1	1 ^f

^aIf infant is discharged from the hospital during RSV season, fewer doses may be required.

^bFor risk factors, see p 565–566.

^cSome of these infants may have received 1 or more doses of palivizumab in the previous RSV season if discharged from the hospital during that season; if so, they still qualify for up to 5 doses during their second RSV season.

^dZero doses because infant will be older than 6 months of age at start of RSV season.

^eZero doses because infant will be older than 90 days of age at start of RSV season.

^fOn the basis of the age of patients at the time of discharge from the hospital, fewer doses may be required, because these infants will receive 1 dose every 30 days until the infant is 90 days of age.

Table 3.75. Recommended Management of Neonates (1 Month of Age or Younger) Born to Mothers With Reactive Serologic Tests for Syphilis

Clinical Status	Evaluation (in Addition to Physical Examination and Quantitative Nontreponemal Testing)	Antimicrobial Therapy ^a
Proven or highly probable disease ^b	CSF analysis for VDRL, cell count, and protein CBC and platelet count Other tests as clinically indicated (eg, long-bone radiography, liver function tests, ophthalmologic examination)	Aqueous crystalline penicillin G, 100 000–150 000 U/kg/day, administered as 50 000 U/kg/dose, IV, every 12 h during the first 7 days of age and every 8 h thereafter for a total of 10 days OR Penicillin G procaine, ^c 50 000 U/kg/day, IM, in a single dose for 10 days
Normal physical examination and serum quantitative nontreponemal titer the same or less than fourfold the maternal titer:		
(a) (i) Mother was not treated or inadequately treated or has no documented treatment; (ii) mother was treated with erythromycin or other nonpenicillin regimen; (iii) mother received treatment 4 wk or less before delivery; (iv) maternal evidence of reinfection or relapse (fourfold or greater increase in titers)	CSF analysis for VDRL, cell count, and protein ^d CBC and platelet count ^d Long-bone radiography ^d	Aqueous crystalline penicillin G, IV, for 10 days ^d OR Penicillin G procaine, ^c 50 000 U/kg, IM, in a single dose for 10 days ^d OR Penicillin G benzathine, ^c 50 000 U/kg, IM, in a single dose ^d
(b) (i) Adequate maternal therapy given more than 4 wk before delivery; (ii) mother has no evidence of reinfection or relapse	None	Clinical, serologic follow-up, and penicillin G benzathine, 50 000 U/kg, IM, in a single dose ^e
(c) Adequate therapy before pregnancy and mother's nontreponemal serologic titer remained low and stable during pregnancy and at delivery	None	None ^f

Table 4.1 Antibacterial Drugs for Newborn Infants: Dose^a (mg/kg or U/kg) and Frequency of Administration

Drug	Route	Infants 0–4 wk of Age					
		Infants <1200 g of Age		Infants <1 wk of Age		Infants ≥1 wk of Age	
		BW <1200 g	BW 1200–2000 g	BW >2000 g	BW 1200–2000 g	BW >2000 g	BW >2000 g
Aminoglycosides^{b,c}							
Amikacin	IV, IM	7.5 every 18–24 h	7.5 every 12 h	7.5–10 every 12 h	7.5–10 every 8 or 12 h	10 every 8 h	
Gentamicin	IV, IM	2.5 every 18–24 h	2.5 every 12 h	2.5 every 12 h	2.5 every 8 or 12 h	2.5 every 8 h	
Neomycin	PO only	...	25 every 6 h	25 every 6 h	25 every 6 h	25 every 6 h	
Tobramycin	IV, IM	2.5 every 18–24 h	2.5 every 12 h	2.5 every 12 h	2.5 every 8 or 12 h	2.5 every 8 h	
Antistaphylococcal penicillins^d							
Methicillin	IV, IM	25 every 12 h	25–50 every 12 h	25–50 every 8 h	25–50 every 8 h	25–50 every 6 h	
Nafcillin	IV, IM	25 every 12 h	25 every 12 h	25 every 8 h	25 every 8 h	25–35 every 6 h	
Oxacillin	IV, IM	25 every 12 h	25–50 every 12 h	25–50 every 8 h	25–50 every 8 h	25–50 every 6 h	
Monobactam							
Aztreonam	IV, IM	30 every 12 h	30 every 12 h	30 every 8 h	30 every 8 h	30 every 6 h	
Carbapenems							
Imipenem/cilastatin	IV	25 every 12 h	25 every 12 h	25 every 12 h	25 every 8 h	25 every 8 h	
Cephalosporins							
Cefotaxime	IV, IM	50 every 12 h	50 every 12 h	50 every 8 or 12 h	50 every 8 h	50 every 6 or 8 h	
Ceftazidime	IV, IM	50 every 12 h	50 every 12 h	50 every 8 or 12 h	50 every 8 h	50 every 8 h	
Ceftriaxone ^e	IV, IM	50 every 24 h	50 every 24 h	50 every 24 h	50 every 24 h	50–75 every 24 h	

Table 4.1 Antibacterial Drugs for Newborn Infants: Dose^a (mg/kg or U/kg) and Frequency of Administration, continued

Drug	Route	Infants 0–4 wk of Age			Infants <1 wk of Age		Infants ≥1 wk of Age		
		BW <1200 g		BW 1200–2000 g		BW >2000 g		BW >2000 g	
		Dose	Freq	Dose	Freq	Dose	Freq	Dose	Freq
Clindamycin	IV, IM, PO	5 every 12 h	5 every 12 h	5 every 8 h	5 every 8 h	5 every 8 h	5 every 8 h	5–7.5 every 6 h	
Erythromycin	PO	10 every 12 h	10 every 12 h	10 every 12 h	10 every 12 h	10 every 8 h	10 every 8 h	10 every 8 h	
Metronidazole	IV, PO	7.5 every 24–48 h	7.5 every 24 h	7.5 every 12 h	7.5 every 12 h	7.5 every 12 h	7.5 every 12 h	15 every 12 h	
Oxazolidinone									
Linezolid	IV	10 every 8–12 h ^f	10 every 8–12 h ^f	10 every 8–12 h	10 every 8–12 h	10 every 8 h	10 every 8 h	10 every 8 h	
Penicillins									
Ampicillin^d	IV, IM	25–50 every 12 h	25–50 every 12 h	25–50 every 12 h	25–50 every 8 h	25–50 every 8 h	25–50 every 8 h	25–50 every 6 h	
Penicillin G, ^d aqueous	IV, IM	25 000–50 000 U every 12 h	25 000–50 000 U every 12 h	25 000–50 000 U every 12 h	25 000–50 000 U every 8 h	25 000–50 000 U every 8 h	25 000–50 000 U every 8 h	25 000–50 000 U every 6 h	
Penicillin G procaine	IM	...	50 000 U every 24 h	50 000 U every 24 h	50 000 U every 24 h	50 000 U every 24 h	50 000 U every 24 h	50 000 U every 24 h	
Ticarcillin^g	IV, IM	75 every 12 h	75 every 12 h	75 every 12 h	75 every 8 h	75 every 8 h	75 every 8 h	100 every 8 h	
Vancomycin^b	IV	15 every 24 h	10–15 every 12–18 h	10–15 every 12–18 h	10–15 every 8–12 h	10–15 every 8–12 h	10–15 every 8–12 h	10–15 every 6–8 h	

BW indicates birth weight; IV, intravenous; IM, intramuscular; PO, oral.

^aUnless otherwise listed, dosages are given as mg/kg.

^bOptimal dosage should be based on determination of serum concentrations, especially in low birth weight (less than 1500 g) infants. In very low birth weight infants (less than 1200 g), dosing every 18 to 24 hours may be appropriate in the first week of life.

^cDosages for aminoglycosides may differ from dosages recommended by the manufacturer in the package insert.

^dFor meningitis, the larger dosage is recommended. Some experts recommend even larger dosages for group B streptococcal meningitis.

^eDrug should not be administered to neonates with hyperbilirubinemia, especially infants born preterm. Neonates should not receive ceftriaxone intravenously while receiving calcium in any form (including hyperalimentation).

^fDosing every 12 hours is recommended for infants less than 34 weeks' gestation and less than 1 week of age.

^gSame dosage for ticarcillin and clavulanate potassium.

Table 4.9. Drugs for Parasitic Infections, continued

Infection	Drug	Adult dosage	Pediatric dosage
CUTANEOUS LARVA MIGRANS (creeping eruption, dog and cat hookworm)			
Drug of choice: ²⁵	Albendazole ^{7,12}	400 mg PO daily × 3d	400 mg PO daily × 3d
OR	Ivermectin ^{7,16}	200 mcg/kg PO daily × 1–2d	200 mcg/kg PO daily × 1–2d
CYCLOSPORIASIS (<i>Cyclospora cayentanensis</i>)			
Drug of choice: ²⁶	Trimethoprim/ sulfamethoxazole ⁷	TMP 160 mg/SMX 800 mg (1 DS tab) PO bid × 7–10d	TMP 10 mg/kg/SMX 50 mg/kg/d PO in 2 doses × 7–10d
CYSTICERCOSIS , see TAPEWORM infection			
DIENTAMOEBIA fragilis infection ²⁷			
Drug of choice:	Iodoquinol ²⁷	650 mg PO tid × 20d	30–40 mg/kg/d (max. 2g) PO in 3 doses × 20d
OR	Paromomycin ³⁷	25–35 mg/kg/d PO in 3 doses × 7d	25–35 mg/kg/d PO in 3 doses × 7d
OR	Tetracycline ^{7,21}	500 mg PO qid × 10d	40 mg/kg/d (max. 2g) PO in 4 doses × 10d
OR	Metronidazole ⁷	500–750 mg PO tid × 10d	35–50 mg/kg/d PO in 3 doses × 10d
Diphyllobothrium latum , see TAPEWORM infection			
DRACUNCULUS medinensis (guinea worm) infection			
Drug of choice:			See footnote 28
Echinococcus , see TAPEWORM infection			
Entamoeba histolytica , see AMEBIASIS			

*Availability problems. See table on page 814.

25. G Albanese et al, Int J Dermatol 2001; 40:67; D Malvy et al, J Travel Med 2006; 13:244.

26. HIV-infected patients may need higher dosage and long-term maintenance. Successful use of nitazoxanide (see also footnote 5) has been reported in one patient with sulfa allergy (SM Zimmer et al, Clin Infect Dis 2007; 44:466).

27. A Norberg et al, Clin Microbiol Infect 2003; 9:65; O Vandenberg et al, Int J Infect Dis 2006; 10:255.

28. No drug is curative against *Dracunculus*. A program for monitoring local sources of drinking water to eliminate transmission has dramatically decreased the number of cases worldwide (M Barry, N Engl J Med 2007; 356:25). The treatment of choice is slow extraction of worm combined with wound care and pain management (C Greenaway, CMAJ 2004; 170:495).

Table 4.9. Drugs for Parasitic Infections, continued

Infection	Drug	Adult dosage	Pediatric dosage
GIARDIASIS (<i>Giardia duodenalis</i>)			
Drug of choice:	Metronidazole ⁷	250 mg PO tid × 5–7d	15 mg/kg/d PO in 3 doses × 5–7d
OR	Timidazole ⁶	2 g PO once	50 mg/kg PO once (max. 2 g)
OR	Nitazoxanide ⁵	500 mg PO bid × 3d	1–3yrs: 100 mg PO q12h × 3d 4–11yrs: 200 mg PO q12h × 3d >12yrs: 500 mg PO q12h × 3d
Alternative: ⁴³	Paromomycin ^{3,7,44}	25–35 mg/kg/d PO in 3 doses × 5–10d	25–35 mg/kg/d PO in 3 doses × 5–10d
OR	Furazolidone ⁸	100 mg PO qid × 7–10d	6 mg/kg/d PO in 4 doses × 7–10d
OR	Quinacrine ^{4,45*}	100 mg PO tid × 5d	6 mg/kg/d PO in 3 doses × 5d (max 300 mg/d)
GNATHOSTOMIASIS (<i>Gnathostoma spinigerum</i>) ⁴⁶			
Treatment of choice:	Albendazole ^{7,12}	400 mg PO bid × 21d	400 mg PO bid × 21d
OR	Ivermectin ^{7,16}	200 mcg/kg/d PO × 2d	200 mcg/kg/d PO × 2d
Either	± Surgical removal		
GONGYLOMIASIS (<i>Gongylonema sp.</i>) ⁴⁷			
Treatment of choice:	Surgical removal		
OR	Albendazole ^{7,12}	400 mg/d PO × 3d	400 mg/d PO × 3d

* Availability problems. See table on page 814.

43. Another alternative is albendazole 400 mg/d PO × 5d in adults and 10 mg/kg/d PO × 5d in children (K. Yereci et al, Clin Microbiol Infect 2004; 10:527; O Karabay et al, World J Gastroenterol 2004; 10:1215). Combination treatment with standard doses of metronidazole and quinacrine × 3wks has been effective for a small number of refractory infections (TE Nash et al, Clin Infect Dis 2001; 33:22). In one study, nitazoxanide was used successfully in high doses to treat a case of *Giardia* resistant to metronidazole and albendazole (P Abboud et al, Clin Infect Dis 2001; 32:1792).

44. Poorly absorbed; may be useful for treatment of giardiasis in pregnancy.

45. Quinacrine should be taken with liquids after a meal.

46. P Nontasut et al, Southeast Asian J Trop Med Pub Health 2005; 36:650; M de Gorgolas et al, J Travel Med 2003; 10:358. All patients should be treated with medication whether surgery is attempted or not.

47. ME Wilson et al, Clin Infect Dis 2001; 32:1378; G Molavi et al, J Helminth 2006; 80:425.

Table 4.9. Drugs for Parasitic Infections, continued

Infection	Drug	Adult dosage	Pediatric dosage
HOOKWORM infection (<i>Ancylostoma duodenale</i> , <i>Necator americanus</i>)			
Drug of choice:	Albendazole ^{7,12}	400 mg PO once	400 mg PO once
OR	Mebendazole	100 mg PO bid × 3d or 500 mg once	100 mg PO bid × 3d or 500 mg once
OR	Pyrantel pamoate ^{7,13*}	11 mg/kg (max. 1 g) PO × 3d	11 mg/kg (max. 1 g) PO × 3d
Hydatid cyst , see TAPEWORM infection			
Hymenolepis nana , see TAPEWORM infection			
ISOSPORIASIS (<i>Isospora belli</i>)			
Drug of choice: ⁴⁸	Trimethoprim-sulfamethoxazole ⁷	TMP 160 mg/SMX 800 mg (1 DS tab) PO bid × 10d	TMP 10 mg/kg/d/SMX 50 mg/kg/d PO in 2 doses × 10d
LEISHMANIA			
Visceral ^{49,50}			
Drug of choice:	Liposomal amphotericin B ⁵¹	3 mg/kg/d IV d 1–5, 14 and 21 ⁵²	3 mg/kg/d IV d 1–5, 14 and 21 ⁵²
OR	Sodium stibogluconate*	20 mg Sb/kg/d IV or IM × 28d	20 mg Sb/kg/d IV or IM × 28d
OR	Miltefosine ^{53*}	2.5 mg/kg/d PO (max 150 mg/d) × 28d	2.5 mg/kg/d PO (max 150 mg/d) × 28d

* Availability problems. See table on page 814.

48. Usually a self-limited illness in immunocompetent patients. Immunosuppressed patients may need higher doses, longer duration (TMP/SMX qid × 10d, followed by bid × 3wks) and long-term maintenance. In sulfonamide-sensitive patients, pyrimethamine 50–75 mg daily in divided doses (plus leucovorin 10–25 mg/d) has been effective.
49. To maximize effectiveness and minimize toxicity, the choice of drug, dosage, and duration of therapy should be individualized based on the region of disease acquisition, a likely infecting species, and host factors such as immune status (Bl. Herwaldt, Lancet 1999; 354:1191). Some of the listed drugs and regimens are effective only against certain *Leishmania* species/strains and only in certain areas of the world (J Arevalo et al, Clin Infect Dis 2007; 195:1846). Medical Letter consultants recommend consultation with physicians experienced in management of this disease.
50. Visceral infection is most commonly due to the Old World species *L. donovani* (kala-azar) and *L. infantum* and the New World species *L. chagasi*.
51. Liposomal amphotericin B (*AmBisome*) is the only lipid formulation of amphotericin B FDA-approved for treatment of visceral leishmaniasis, largely based on clinical trials in patients infected with *L. infantum* (A Meyerhoff, Clin Infect Dis 1999; 28:42). Two other amphotericin B lipid formulations, amphotericin B lipid complex (*Abelcet*) and amphotericin B cholesteryl sulfate (*Amphoter*) have been used, but are considered investigational for this condition and may not be as effective (C Bern et al, Clin Infect Dis 2006; 43:917).
52. The FDA-approved dosage regimen for immunocompromised patients (e.g., HIV infected) is 4 mg/kg/d IV on days 1–5, 10, 17, 24, 31 and 38. The relapse rate is high; maintenance therapy (secondary prevention) may be indicated, but there is no consensus as to dosage or duration.
53. Effective for both antimony-sensitive and -resistant *L. donovani* (Indian); miltefosine (*Imfavitole*) is manufactured in 10- or 50-mg capsules by Zentaris (Frankfurt, Germany at info@zentaris.com) and is available through consultation with the CDC. The drug is contraindicated in pregnancy; a negative pregnancy test before drug initiation and effective contraception during and for 2 months after treatment is recommended (H Murray et al, Lancet 2005; 366:1561). In a placebo-controlled trial in patients ≥12 years old, oral miltefosine 2.5 mg/kg/d × 28d was also effective for treatment of cutaneous leishmaniasis due to *L. (V.) panamensis* in Colombia, but not *L. (V.) braziliensis* or *L. mexicana* in Guatemala (J Soto et al, Clin Infect Dis 2004; 38:1266). “Motion sickness,” nausea, headache and increased creatinine are the most frequent adverse effects (J Soto and P Soto, Expert Rev Anti Infect Ther 2006; 4:177).

Table 4.9. Drugs for Parasitic Infections, continued

Infection	Drug	Adult dosage	Pediatric dosage
MALARIA, Treatment of, continued	Quinine sulfate	650 mg q8h × 3 or 7d ⁷⁰	30 mg/kg/d in 3 doses × 3 or 7d ⁷⁰
	plus doxycycline ^{7,21,71}	100 mg bid × 7d	4 mg/kg/d in 2 doses × 7d
OR	or plus tetracycline ^{7,21}	250 mg qid × 7d	25 mg/kg/d in 4 doses × 7d
	or plus clindamycin ^{7,18,72}	20 mg/kg/d in 3 doses × 7d ⁷³	20 mg/kg/d in 3 doses × 7d
Alternative: ⁶⁷	Mefloquine ^{7,4,75}	750 mg followed 12 hrs later by 500 mg	15 mg/kg followed 12 hrs later by 10 mg/kg

*Availability problems. See table on page 814.

70. Available in the US in a 324-mg capsule; 2 capsules suffice for adult dosage. In Southeast Asia, relative resistance to quinine has increased and treatment should be continued for 7d. Quinine should be taken with or after meals to decrease gastrointestinal adverse effects.

71. Doxycycline should be taken with adequate water to avoid esophageal irritation. It can be taken with food to minimize gastrointestinal adverse effects.

72. For use in pregnancy and in children <8 yrs.

73. B Lell and PG Kremser, *Antimicrob Agents Chemother* 2002; 46:2315; M Ramharter et al, *Clin Infect Dis* 2005; 40:1777.

74. At this dosage, adverse effects include nausea, vomiting, diarrhea and dizziness. Disturbed sense of balance, toxic psychosis and seizures can also occur. Mefloquine should not be used for treatment of malaria in pregnancy unless there is no other treatment option because of increased risk for stillbirth (F Nosten et al, *Clin Infect Dis* 1999; 28:808). It should be avoided for treatment of malaria in persons with active depression or with a history of psychosis or seizures and should be used with caution in persons with any psychiatric illness. Mefloquine can be given to patients taking β -blockers if they do not have an underlying arrhythmia; it should not be used in patients with conduction abnormalities. Mefloquine should not be given together with quinine or quinidine, and caution is required in using quinine or quinidine to treat patients with malaria who have taken mefloquine for prophylaxis. Mefloquine should not be taken on an empty stomach; it should be taken with at least 8 oz of water.

75. *P. falciparum* with resistance to mefloquine is a significant problem in the malarious areas of Thailand and in areas of Myanmar and Cambodia that border on Thailand. It has also been reported on the borders between Myanmar and China, Laos and Myanmar; and in Southern Vietnam. In the US, a 250-mg tablet of mefloquine contains 228 mg mefloquine base. Outside the US, each 275-mg tablet contains 250 mg base.