

3.12 PHARMACEUTICALS

PURPOSE

To provide for the initial treatment of parasitic infections and other defined conditions, particularly infectious diseases and conditions affecting refugees that might require urgent attention

BACKGROUND

Treatment for certain acute conditions that are diagnosed during the health assessment can be reimbursed by RHAP. In general, these are parasitic infections or conditions that require prompt treatment. Incorporating medications into RHAP facilitates the process of providing pre-filled prescriptions. Additional defined medications can be pre-filled as well. For those RHAP patients with Medicaid cards, pharmacies have the option of billing Medicaid directly and there are no restrictions on formulary.

Urgent medical needs that cannot be addressed during health assessment should be managed outside of the health assessment context. Similarly, non-urgent conditions may be treated later in the context of primary or specialist care.

A full listing of pharmaceuticals that will be reimbursed by our program are listed in this section.

PROGRAM REQUIREMENTS

Pharmaceutical coverage allows treatment of common parasitic infections, additional acute conditions diagnosed clinically, and iron deficiency.

Clinicians must document the specific indications for treatment in the patient's medical record. Substitution of pharmaceuticals must also follow RHAP guidelines and be documented in the record.

Treatment of Parasites

Clinical sites are required to obtain and provide anti-parasitic medication to RHAP patients to treat pathologic intestinal parasites. Prescribe through a pharmacy affiliated with your program to ensure that the patient is not billed for anti-parasitic medications. It is recommended that single dose medications be taken at the RHAP clinic visit whenever possible. Presumptive treatment is also covered through RHAP. See Section 3.6 on Parasites for detailed information.

The following list summarizes the anti-parasitic medications covered by RHAP:

Albendazole/Albenza
Iodoquinol/Yodoxin
Ivermectin/Stromectol
Mebendazole/Vermox
Metronidazole/Flagyl
Nitazoxanide/Alinia
Paromomycin/Humatin
Praziquantel/Biltricide
Thiabendazole/Mintezol
Anti-Malarials

Notes on Treatment of Parasites:

- Treatment for acute malaria can be covered if the clinician opts to treat malaria on an outpatient basis.
- Presumptive treatment of malaria can also be covered.
- Patients with *Ascaris* as well as another parasite should always be treated for *Ascaris* first due to the risk of migration of the worm.
- Albendazole is only available as a film-coated tablet and may not be suitable for use in young children.
- Paromomycin is not absorbed and may be useful for treatment of amebiasis and giardiasis during pregnancy.
- Clinicians may consider empiric treatment of refugees with negative O & P tests in the following situations:
 1. Multiple family members with similar intestinal parasites. For example, if two family members have trichuriasis, the clinician may consider treating the patient with mebendazole or albendazole.
 2. A patient (from a country with endemic parasitoses) with a high-risk medical condition which predisposes to complications from parasitoses. For example, a patient with asthma or rheumatic disease who may be likely to be placed on steroids, or a patient with HIV infection. In these instances, the clinician should consider empiric treatment with albendazole, 400 mg bid for 3 days.
- For treatment of malaria, please refer to Section 3.6.

RECOMMENDED AND REIMBURSED DRUGS FOR MAJOR PARASITES*

Parasite	Drug (generic/trade) In Order of Preference:	Adult Dosage	Pediatric Dosage
Ascaris	Mebendazole/Vermox	500 mg once or 100mg bid x 3d.	Same
	Albendazole/Albenza	400 mg once	Same
Clonorchis	Praziquantel/Biltricide	25 mg/kg q 6° x 3 doses	Same
	Albendazole/Albenza	10 mg/kg x 7 days	Same
E. histolytica ¹	Paromomycin/Humatin	25-35 mg/kg/day ÷ tid x 7 days	Same
	Iodoquinol	650 mg tid x 20 days	30-40 mg/kg/day ÷ tid x 20 days (max. 2 gm)
Giardia	Metronidazole/Flagyl	250 mg tid x 5 days	15 mg/kg/day ÷ tid x 5 d.
	Nitazoxanide/Alinia	Ages 12 years and older: 500 mg bid x 3 days	1-3 yrs: 100 mg bid x 3 d. 4-11 yrs: 200 mg bid x 3 d.
Hookworm	Mebendazole/Vermox	500 mg once or 100mg bid x 3d.	Same
	Albendazole/Albenza	400 mg once	Same
Hymenolepis	Praziquantel/Biltricide	25 mg/kg x 1 dose	Same
Lice	Permethrin 1% cream rinse/ Nix	Apply x 1; repeat after 2 wks prn	Same
Scabies	Permethrin 5% lotion/ Elimate	Apply qhs and rinse in AM once	Same
Schistosoma	Praziquantel/Biltricide	20 mg/kg bid-tid x 1 day ²	Same
Strongyloides	Ivermectin/Stromectol ³	200 µg/kg/day x 1-2 days	Same
	Thiabendazole/Mintezol	25 mg/kg bid x 7 days	
Tape worms ⁴	Praziquantel/Biltricide	5-10 mg/kg x 1 dose	Same
Toxocara canis	Albendazole/Albenza	400 mg bid x 5 days	Same
	Mebendazole/Vermox	100-200 mg bid x 5 days	Same
Trichuris	Mebendazole/Vermox	500mg once or 100mg bid x 3d.	Same
	Albendazole/Albenza	400 mg once ⁵	Same

*The Medical Letter on Drugs and Therapeutics. August 2004 On-line edition:1-12.

MALARIA TREATMENT

The Centers for Disease Control offer 24-hour consultation at 770-488-7788 during weekday business hours and by page at 770-488-7100 after hours and on weekends and holidays. Treatment guidelines are available at:

http://www.cdc.gov/malaria/diagnosis_treatment/tx_clinicians.htm

¹ Asymptomatic carriage only. Obtain consultation for symptomatic case treatment.

² TID dosing for *S. Japonicum* and *mekongi*.

³ Ivermectin not FDA approved for use in disseminated strongyloidiasis.

⁴ *Dipyllobothrium latum*, *Taenia saginata/solium*, and *Dipylidium* only. Consult reference for others.

⁵ In heavy infection, may need to treat with 400 mg bid x 3 days.

Section 3: CLINICAL PROGRAM**FORMULATIONS:**

- Albendazole/Albenza: 200 mg film-coated tablets
- Iodoquinol/Yodoxin: 210 and 650 mg tablets
- Ivermectin/Stromectol: 3 mg unscored and 6 mg scored tablets
- Mebendazole/Vermox: 100 mg chewable tablets
- Metronidazole/Flagyl: 250 & 500 mg tablets, 100 mg/5cc suspension (specially prepared)
- Nitazoxanide/Alinia: 500 mg tablets; 100 mg/5cc suspension
- Paromomycin/Humatin: 250 mg capsules
- Permethrin/Elimite/Nix: 5% cream (60gm) /1% cream rinse (59cc)
- Praziquantel/Biltricide: 600 mg triscored tablets, 150 mg/section
- Thiabendazole/Mintezol: 500 mg chewable tablets, 500mg/5cc suspension

MAJOR SIDE EFFECTS*:

Drug	Common	Rare
Albendazole	Abd. pain, reversible alopecia, transaminase elevation, <i>Ascaris</i> migration	Leukopenia, rash, renal toxicity
Iodoquinol	Rash, acne, goiter, nausea, anal pruritus, diarrhea, cramps	Optic neuritis/atrophy, loss of vision, peripheral neuropathy, iodine sensitivity
Ivermectin	Mazzotti-type reaction in onchocerciasis: fever, pruritus, lymphadenopathy, HA, arthralgia	Hypotension, edema, tachycardia, possible ophtho changes
Mebendazole	diarrhea, abd. pain, <i>Ascaris</i> migration	leukopenia, alopecia, hepatotoxicity, agranulocytosis, hypospermia
Metronidazole	nausea, dry mouth, metallic taste, headache, GI disturbance, insomnia, vertigo, tinnitus, weakness, stomatitis, dark urine, disulfirim-like rxn., paresthesia, rash, urethritis	seizures, encephalopathy, pseudomemb.colitis, ataxia, leukopenia, pancreatitis, periph. Neuropathy
Nitazoxanide	Abdominal pain, diarrhea, headache, nausea	
Paromomycin	GI disturbance, eighth nerve toxicity, nephrotoxicity if IV, vertigo, pancreatitis (No rare SE's listed).	
Permethrin	Burning, stinging, numbness, increased pruritus, edema, erythema, rash (No rare SE's listed).	
Praziquantel	malaise, headache, dizziness, sedation, GI upset, fever, sweating, nausea, eosinophilia, fatigue	Pruritus, rash
Thiabendazole	Nausea, vomiting, vertigo, headache, drowsiness, pruritus, leukopenia, crystalluria, rash, hallucinations and psych. rxns, visual/olfactory disturbance, e. multiforme	Shock, tinnitus, intrahepatic cholestasis, seizures, angioneurotic edema, Stevens-Johnson Syndrome

**This table is not meant to be a definitive list of side effects and contraindications. Clinicians are responsible for familiarizing themselves with prescribed anti-parasitic drugs.*

Section 3: CLINICAL PROGRAM

Treatment of Other Conditions

In addition to anti-parasitic medications, RHAP also covers pharmaceuticals for the treatment of acute conditions.

The following list summarizes the additional medications covered by RHAP:

- Amoxicillin
- Azithromycin
- Benzithine Penicillin G
- Ceftriaxone
- Clotrimazole
- Erythromycin ES
- Griseofulvin V (microsize)
- Neomycin/PolymixinB/Hydrocortisone
- Penicillin VK
- Permethrin 1%
- Permethrin 5%
- Trimethoprim-Sulfamethoxazole
- Iron, at treatment doses (any formulation)

Clinicians must adhere to the pharmaceutical guidelines listed. Dosing, if not delineated, is expected to be according to the standard regimen for the drug.

For drug substitutions, clinicians must seek prior approval from RIHP medical director; however, clinicians may substitute without RIHP authorization for refugee patients who have received their MassHealth cards. In this case, affiliated pharmacies must seek reimbursement for substituted drugs from MassHealth, not RIHP.

Diagnosis	Children	Adolescents/Adults
Iron Deficiency	<ul style="list-style-type: none"> • Elemental iron 4-6 mg/kg/day (any formulation) x 3 months 	<ul style="list-style-type: none"> • Elemental iron 65mg (= 325mg FeSO4) bid – tid x 3 months
Acute Otitis Media	<ul style="list-style-type: none"> • Amoxicillin 250mg/5cc suspension • Under 2 years: ~20 – 25 mg/kg dose po tid for 10 days • 2 years and over: 7 days • Use azithromycin if PCN allergy 	<ul style="list-style-type: none"> • Amoxicillin 500mg tabs • 5 - 7 day course • Use azithromycin if PCN allergy
Acute Otitis Externa	<ul style="list-style-type: none"> • Neomycin/Polymixin B/ Hydrocortisone otic suspension 	<ul style="list-style-type: none"> • Same

Section 3: CLINICAL PROGRAM

Diagnosis	Children	Adolescents/Adults
Streptococcal Pharyngitis	<ul style="list-style-type: none"> • Penicillin VK 250mg/5cc suspension • BID dosing preferred • 10 day course • Use erythromycin ES if PCN allergy 	<ul style="list-style-type: none"> • Penicillin VK 500mg tabs • BID dosing preferred • 10 day course • Use erythromycin ES if PCN allergy
Urinary Tract Infection	<ul style="list-style-type: none"> • TMP/SMX suspension • 7 – 10 day course • Use Amox. if sulfa allergy • May substitute other drug without RIHP approval only if indicated by bacterial sensitivities or allergies† 	<ul style="list-style-type: none"> • TMP/SMX 80/160mg tabs • 3 day course • Use Amox. if sulfa allergy • May substitute other drug without RIHP approval only if indicated by bacterial sensitivities or allergies†
Gonococcal urethritis/cervicitis	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Single dose ceftriaxone (125 mg IM)
Chlamydia urethritis/cervicitis	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Single dose azithromycin (1 gm po)
Syphilis	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Benzathine Penicillin G 2.4 million units IM once; MDPH recommends a second dose for Tx of early latent syphilis. In addition, a third dose should be considered for latent syphilis of unknown duration. Doses should be one week apart.
Tinea Corporis	<ul style="list-style-type: none"> • Clotrimazole cream 	<ul style="list-style-type: none"> • Clotrimazole cream
Tinea Capitis	<ul style="list-style-type: none"> • Griseofulvin V microsize 125mg/5cc suspension • 4 weeks course only (patient should f/u with PCP for refill covered by MassHealth) 	<ul style="list-style-type: none"> • Griseofulvin V ultramicrosize 125/250mg tabs • 4 weeks course only (patient should f/u with PCP for refill covered by MassHealth)
Lice	<ul style="list-style-type: none"> • Permethrin 1% cream rinse 	<ul style="list-style-type: none"> • Permethrin 1% cream rinse
Scabies	<ul style="list-style-type: none"> • Permethrin 5% lotion 	<ul style="list-style-type: none"> • Permethrin 5% lotion

†RIHP may request documentation of need for substitution.