

SCHEDULING STATUS:

S4

PROPRIETARY NAME AND DOSAGE FORM:

Bio-Metronidazole 200 (Tablets)

Bio-Metronidazole 400 (Tablets)

COMPOSITION:

Each Bio-Metronidazole 200 tablet contains 200 mg metronidazole

Each Bio-Metronidazole 400 tablet contains 400 mg metronidazole

Excipients: Colloidal silicon dioxide, lactose, magnesium stearate, maize starch, pregelatinised starch, povidone.

Bio-Metronidazole 200 tablet contains 200 mg lactose per tablet.

Bio-Metronidazole 400 tablet contains 150 mg lactose per tablet.

CONTAINS SUGAR

PHARMACOLOGICAL CLASSIFICATION:

A 20.2.6 Medicines against protozoa

PHARMACOLOGICAL ACTION:**Pharmacodynamic properties**Metronidazole is active *in vitro* against a wide variety of anaerobic protozoal parasites and anaerobic bacteria. It has antiprotozoal activity against *Trichomonas vaginalis* and other protozoa, including *Entamoeba histolytica* and *Giardia lamblia*.Metronidazole has bactericidal activity against obligate anaerobic bacteria (Gram positive and negative) and bacilli or cocci. It does not affect the acidophilic flora of the vagina. It is not effective against aerobic, facultative anaerobic bacteria as well as *Candida* species.**Pharmacokinetic properties**

Metronidazole is completely absorbed after oral administration. The half-life of metronidazole in plasma is about 8 hours with less than 20 % of metronidazole bound to plasma proteins.

After an oral dose over 75 % of metronidazole is eliminated in the urine largely as metabolites; about 10 % is recovered as unchanged metronidazole. The liver is the main site of metabolism. Metronidazole crosses the blood - brain barrier.

INDICATIONS:

Indicated in the treatment of:

- Urogenital trichomoniasis
- Non-specific vaginitis
- All forms of amoebiasis
- Acute ulcerative gingivitis (Vincent's angina)
- Giardiasis
- Acute pericoronitis

Treatment of infections in which anaerobic bacteria have been identified or are suspected as pathogens, particularly *Bacteroides fragilis* and other species of bacteroides and including other species for which metronidazole is bactericidal, such as fusobacteria, clostridia, eubacteria and anaerobic streptococci.

Bio-Metronidazole has been used successfully for anaerobic infections in the following conditions: pelvic inflammatory disease and postoperative wound infections.

Combined therapy is often indicated as there are usually mixed infections.

Prevention of post-operative infections due to anaerobic bacteria, particularly species of bacteroides and anaerobic streptococci. Given alone before or after gynaecological surgery or appendectomy; or given together with appropriate antibacterial agents before or after colonic surgery.

Treatment of *Helicobacter pylori*-associated gastritis and duodenal ulcer. Bio-Metronidazole is used in combination with other appropriate therapy.**CONTRAINDICATIONS:**

The use of Bio-Metronidazole should be avoided during pregnancy and breastfeeding (see PREGNANCY AND LACTATION), and in patients with blood dyscrasias or central nervous system diseases.

Contraindicated in patients hypersensitive to metronidazole, other imidazoles or any of the excipients.

WARNINGS AND SPECIAL PRECAUTIONS:

When given in conjunction with alcohol, Bio-Metronidazole may provoke a disulfiram-like reaction (see INTERACTIONS).

Pseudomembranous colitis has been reported following the use of Bio-Metronidazole.

Special Precautions

Transient falls in blood pressure have been reported with the use of Bio-Metronidazole. It may therefore be advisable to lower the dosage of antihypertensive medicine which may be given concurrently with Bio-Metronidazole.

When repeat courses are required, leukocyte counts should be performed before, during and after each course of treatment. In patients with blood dyscrasias or with active or chronic disease of the central and peripheral nervous system Bio-Metronidazole should be used with great care.

All patients receiving treatment with Bio-Metronidazole for more than 10 days should be closely monitored and treatment should be discontinued if signs of peripheral neuropathy or central nervous system toxicity develop.

In patients with severe liver disease the dose of Bio-Metronidazole should be reduced.

As plasma levels of busulfan may be increased significantly by the co-administration with Bio-Metronidazole, it may lead to severe busulfan toxicity and even death (refer to INTERACTIONS).

Due to the anti-treponemal activity of Bio-Metronidazole it may mask the immunological response seen in untreated early syphilis and contacts of syphilis treated with Bio-Metronidazole should probably be screened for an additional 4 to 8 weeks.

Effects on the ability to drive and use machines:

Bio-Metronidazole may cause confusion, dizziness, hallucinations, convulsions or transient visual disorders and patients should be warned regarding this and advised not to drive or operate machinery if these symptoms occur.

Lactose

Bio-Metronidazole contains small amount of lactose. Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take this medicine.

INTERACTIONS:

Bio-Metronidazole enhances the anti-coagulant effect of warfarin.

Bio-Metronidazole used concomitantly with alcohol may provoke a disulfiram-like reaction in some individuals. This reaction has occurred following the use of pharmaceutical preparations formulated with alcohol, including injections, as well as after consuming alcohol. The concomitant use of Bio-Metronidazole and disulfiram has been associated with acute psychoses or confusion.

Bio-Metronidazole may impair the clearance of phenytoin, lithium and fluorouracil.

Phenytoin might accelerate the metabolism of Bio-Metronidazole.

Phenobarbitone administered concomitantly with Bio-Metronidazole causes decreased plasma concentrations of Bio-Metronidazole and thus leading to a reduction in the effectiveness of Bio-Metronidazole.

Cimetidine may increase plasma concentrations of Bio-Metronidazole and might increase the risk of neurological side effects.

The risk of elevation of serum levels of cyclosporine might be increased by Bio-Metronidazole.

The co-administration with busulfan may increase plasma levels of busulfan so significantly that it might lead to severe busulfan toxicity and death (refer to WARNINGS AND SPECIAL PRECAUTIONS).

PREGNANCY AND LACTATION:

The safety of Bio-Metronidazole has not been established in pregnancy and lactation.

DOSAGE AND DIRECTIONS FOR USE:

Administration

Tablets should be swallowed without chewing, with adequate water, preferably during or after meals.

	DURATION OF DOSAGE IN DAYS	ADULTS	CHILDREN 7 TO 10 YEARS
UROGENITAL TRICHOMONIASIS Where re-infection is likely, in adults the consort should receive a similar course of treatment concurrently.	1	2 g as a single dose	
	7	200 mg three times daily or 400 mg twice daily	100 mg three times daily
	2	800 mg in the morning and 1,2 g in the evening	
NON-SPECIFIC VAGINITIS	7	400 mg twice daily	7
	OR 1	2 g as a single dose	OR 1
AMOEBIASIS a) Invasive intestinal disease in susceptible subjects.	5	800 mg three times daily	400 mg three times daily
AMOEBIASIS b) Intestinal disease in less susceptible subjects and "chronic amoebic hepatitis".	5 to 10	400 mg three times daily	200 mg three times daily
AMOEBIASIS c) Amoebic liver abscess, also other forms extra-intestinal amoebiasis	5	400 mg three times daily	200 mg three times daily
AMOEBIASIS d) Symptomless cyst passers	5 to 10	400 to 800 mg three times daily	200 to 400 mg three times daily
GIARDIASIS A second course of treatment may be necessary for some patients two weeks after the end of the first course.			
ACUTE ULCERATIVE GINGIVITIS	3	200 mg three times daily	100 mg three times daily
ACUTE PERICORONITIS	3 to 7	200 mg three times daily	

Anaerobic Infections*a) Treatment:*

Bio-Metronidazole may be given alone or concurrently with other bacteriologically appropriate antibacterial agents. They should be given for 7 days or longer depending on clinical and bacteriological assessments of the patient's condition.

Adults: Initially, 800 mg followed by 400 mg by mouth every 8 hours.*Children:* 7,5 mg/kg body mass by mouth every 8 hours.*b) Prevention:**Adults:* Administered in doses similar to those used for the treatment of established infection. 400 mg may be given every 8 hours in the 24 hours before surgery followed postoperatively by intravenous or rectal administration until oral therapy is possible.*Children:* as for treatment (a).*Treatment of Helicobacter pylori-associated gastritis and duodenal ulcer:*

Bio-Metronidazole 200 mg – 5 times a day for 14 days in combination with other appropriate therapy.

SIDE EFFECTS:**Gastrointestinal disorders***Frequent:* Gastrointestinal discomfort, anorexia, nausea and unpleasant taste; vomiting and headache may accompany the nausea. Diarrhoea, dry mouth, coated tongue, oral mucositis and stomatitis may also occur.*Less frequent:* Antibiotic-associated colitis, pancreatitis, pseudomembranous colitis associated with the use of Bio-Metronidazole.**Nervous system disorders***Frequent:* Vertigo (dizziness or lightheadedness)*Less frequent:* Peripheral neuropathy (numbness, tingling, pain, or weakness in hands or feet) has been reported with high doses or in patients on prolonged treatment; seizures – usually with high doses. Reports of encephalopathy (e.g. confusion) and subacute cerebellar syndrome (e.g. ataxia dysarthria, gait impairment, nystagmus and tremor), which may resolve with discontinuation of Bio-Metronidazole.*Frequency unknown:* Psychotic disorders including confusion, irritability and hallucinations. Weakness, drowsiness, insomnia, and changes in mood or mental state such as depression or confusion.**Blood and lymphatic system disorders***Less frequent:* Temporary moderate leucopenia, thrombocytopenia, agranulocytosis, neutropenia.**Skin and subcutaneous tissue disorders***Less frequent:* Pruritus, skin rash, fever, angioedema, flushing, urticaria, anaphylaxis. Pustular eruptions may occur. Mild erythematous eruptions with fleeting joint pains resembling serum sickness.**Musculoskeletal, connective tissue and bone disorders***Frequency unknown:* Myalgia and arthralgia.**Eye disorders***Frequency unknown:* Transient vision disorders such as diplopia and myopia.**Respiratory, thoracic and mediastinal disorders***Frequency unknown:* Nasal congestion.**Hepato-biliary disorders***Less frequent:* Raised liver enzyme values, reversible abnormal liver function and cholestatic hepatitis.**Renal and urinary disorders***Less frequent:* Urethral discomfort, and darkening of the urine**KNOWN SYMPTOMS OF OVERDOSAGE AND PARTICULARS OF ITS TREATMENT:**

Refer to SIDE EFFECTS. Treatment is symptomatic and supportive, but early gastric lavage is recommended.

IDENTIFICATION:

Bio-Metronidazole 200:

A white biconvex tablet, indented MZL 200 and a breakline on one side.

Bio-Metronidazole 400:

A white biconvex tablet, indented MZL 400 and a breakline on one side.

PRESENTATION:

Bio-Metronidazole 200:

Securitainers with 250 tablets or Patient Ready Pack (LDPE Bag) with 21, 28 tablets.

7 tablets per blister strip and 1, 2, or 3 blisters per outer carton.

Bio-Metronidazole 400:

Securitainers with 21, 100 and 500 tablets or Patient Ready Pack (LDPE Bag) with 5, 14, 21 tablets.

7 tablets per blister strip and 1, 2 or 3 blisters per outer carton.

HDPE Container with cap, containing 100 and 500 tablets.

STORAGE INSTRUCTIONS:

Store at or below 25 °C and protect from light.

Do not remove the blisters from the outer carton until required for use.

KEEP OUT OF REACH OF CHILDREN

REGISTRATION NUMBER:

BIO-METRONIDAZOLE 200: V/20.2.6/370

BIO-METRONIDAZOLE 400: V/20.2.6/371

NAME AND BUSINESS ADDRESS OF THE HOLDER OF THE CERTIFICATE OF REGISTRATION:

Biotech Laboratories (Pty) Ltd
 Ground Floor, Block K West, Central Park
 400 16th Road, Randjespark, Midrand, 1685
 South Africa

DATE OF PUBLICATION OF THE PACKAGE INSERT:

Date of Registration: 30 November 1988

Date of latest revision of the text as approved by Council: 02 March 2012

Date of notification with regard to amended Reg. 9 and 10: 02 February 2015

Bio-Metronidazole 400	
Namibia: Reg. No.: 11/20.2.6/0184	NS2

