

# Tropical Diseases

My desire is to help you become familiar with some of the most common tropical diseases encountered on the AO mission trips. This is based on many years' experience in Brazil's Amazon area. Most of the photos were taken on actual mission trips.

We are not trying to make a manual of tropical medicine or tropical diseases; rather, our interest as an organization is that you can have an overview of some diseases that can be found, since they are common in the daily clinics of the villagers.

We try to summarize much of the information and leave only that which can help us and awaken interest in expanding knowledge to be a blessing to many who are unable to receive good treatment. This project is not complete. We will continue to work on it to help every health professional who comes to serve among the Amazon River.

We hope this short presentation can help you and we would love your participation as we continue to add to this project.

Please send photos or suggestions to [steve@amazonoutreach.org](mailto:steve@amazonoutreach.org)

*Thank you, Dr. Pablo*





# Medical Treatment

We do not have all the drugs on the boat that we would want for treatment, but we will have almost everything we need for a range of diseases, most common in the jungle.

## Antibiotics

We have a 1st, 2nd, or 3rd option. It will be marked like this... 1\*, 2\*, 3\*

### Oral:

1\* Medicine XX mg orally every 12 hours.

2\* Medicine XX mg every 6 hours for 7 days.

3\* Medicine XX mg orally 2 times a day

### Skin:

#### Medicine in Cream

Apply a small amount 2 times a day in the affected area.





# Dermatology

## Scabies

### Portuguese: Sarna/Curuba

It is an Ectoparasitic infestation caused by *Sarcoptes Scabiei* var. *hominis*. This microscopic mite burrows into the skin and lays eggs, triggering an immune response in the host that causes intense itching and rash.

#### **Medical treatment:**

##### **Benzyl Benzoate Soap.**

The affected part must be carefully washed with soap, producing a foam that must remain on the skin until it dries. The maximum daily use limit is one application per day.

##### **Benzyl Benzoate Emulsion**

Shake the bottle and dilute the medicine in another container in a proportion:

For children: 1 part of the product to 3 parts of water

For adults: 1 part of the product to 1 part of water, mixing well.

The maximum daily use limit is one application per day.





## Cutaneous Larva Migrans

### Portuguese: Bicho Geografico. Michacao

The parasite involved is *Ancylostoma braziliense* (dogs, cats and felines)

The clinical presentation of this entity in the form of pruritic and serpiginous lesions that advance along one end is characteristic and allows for an easy diagnosis.

#### **Medical treatment:**

The most accepted drugs for treatment are:

##### **Albendazole**

Administered in a single dose of 400 mg/day

##### **Ivermectin**

Administered in a single dose of 200 µg/kg body weight. (12 mg. single dose)

##### **Tialbendazol cream**

Local application of 10% or 15% thiabendazole in an occlusive dressing for three days.



## Tinea Capitis

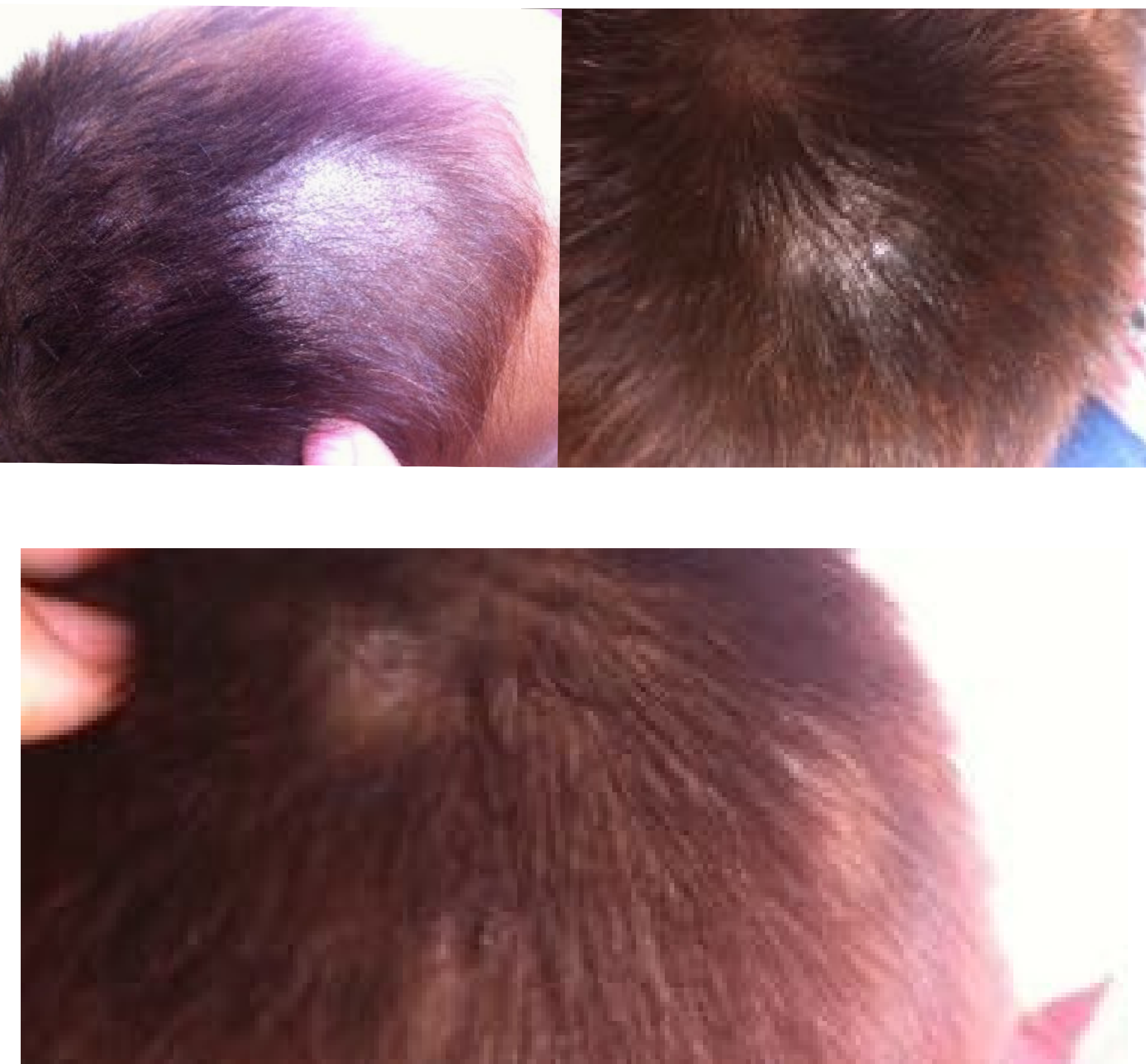
Tinea Capitis is a fungal infection that affects a child's scalp and hair. The symptoms include swollen, red patches, dry, scaly rashes, itchiness, and hair loss. The fungi called dermatophytes (*Microsporum* and *Trichophyton*) cause the tinea capitis infection.

Medical treatment: Treatment for a tinea capitis involves using an oral antifungal medication. Our Option in the boat is:

### **Adult Fluconazole**

150 mg. 1 single (weekly) oral dose of 150 mg.

Treatment is 4 or 6 weeks.







## Pityriasis or Tinea Versicolor

### Portuguese: Pano Branco

Tinea versicolor is a common fungal infection of the skin.

The fungus affects the normal pigmentation of the skin, resulting in the formation of small discolored spots. These spots can be lighter or darker in color than the skin around them, and most frequently affect the trunk and shoulders but can appear in the face. Tinea versicolor often recurs, especially in hot, humid climates. These skin funguses are usually very common in all the Amazon rivers.

#### **Medical treatment:**

Antifungal creams or lotions can help treat this disease. However, even after successful treatment, skin color may remain uneven for several weeks or months.

#### **Cetoconazole Cream**

Apply a small amount 2 times a day as needed.

Miconazole Cream

Apply small amount 2 times a day as needed.





# Sporotrichosis



Sporotrichosis is the most common deep mycosis worldwide. *Sporothrix schenckii* is a complex of at least six species: *S. albinos*, *S. brasiliensis*, *S. mexicana*, *S. globosa*, and *S. schenckii sensu stricto*.

The disease is endemic in rural areas and among professionals in contact with plants, such as farmers, forest guards, gardeners, florists, etc. Zoonotic transmission can be from insect bites, handling of fish, and bites (from cats, dogs, rats, reptiles, horses, etc.). The possibility of transmission between people from infected wounds is unknown.

3 cutaneous clinical forms: lymphocutaneous, Simple, and disseminated cutaneous, and Extracutaneous (systemic forms).

**Symptoms:** Starts as a small, painless red, purple, or pink bump on the skin. Over time, more bumps may begin to appear and grow. Eventually, they may start to produce pus, become open sores, and spread from the site of infection.

The predominance of males is believed to be due to greater exposure rather than greater predisposition. Traumatic inoculation is why the extremities (mainly upper) and exposed parts are most frequently affected. The symptoms are similar in children, but facial involvement is much more common.

## **Treatment:**

**Itraconazole** is the first-line medication to treat this infection. We do not have this at the boat Pharmacy.

**Fluconazole** is a second-line treatment for sporotrichosis.

For Cutaneous Sporotrichosis: **Fluconazole** 150 mg once a week for 2 months ( 8 pills)

**For pulmonar and systemic infection we need to send them to the main hospital in the area for a specific treatment.**



## Tinea Curtis/Jock Itch

### Portuguese: Coceira Nas Partes

This is a fungal infection of the skin of the genitals, inner thighs and buttocks. Jock itch causes an itchy rash and red patches that are often ring-shaped.

#### **Medical treatment:**

Treatment consists of keeping the groin area clean and dry and applying antifungal.

#### **Cetoconazole Cream**

Miconazole 2% Cream

In cases of immunodeficiency, treat with

**Fluconazole orally.**





## Eczema-Atopic Dermatitis

Eczema is an umbrella term that describes several Common skin conditions:

Atopic dermatitis, Contact dermatitis, Nummular eczema, (Pic 2) Seborrheic dermatitis, and others.

Signs: Eczema can cause darker brown, purple, or gray patches in darker-skinned villagers. After a flare-up, the affected skin may look darker, with hyperpigmentation. Pics 1, 2, 3, 4 or lighter (hypopigmentation), Pic 5, in the area.

Symptoms: Itching and burning lesions that ooze fluid or have scabs. The affected areas may be swollen, warm, itchy, dry, or scaly. Medical treatment: Eczema can be treated with a topical corticosteroid, oral corticosteroids, or antihistamines for a short period.





# Contact Dermatitis

## Portuguese: Assadura



Contact dermatitis is an itchy rash caused by direct contact with or an allergic reaction to a substance. The rash is not contagious, but it can be very bothersome. Many substances can cause this reaction, such as cosmetics, fragrances, jewelry, and plants found in the Jungle. Picture 1

Diaper dermatitis (diaper rash) is a skin problem caused by prolonged exposure of the skin to moisture, friction with the diaper material, and contact with chemicals in urine and stool. Your skin may look red, raw, irritated, or burning. Picture 3

Drug dermatitis: They are manifestation on the skin, mucous membranes, or annexes, except the skin, produced by drugs administered by any route. They belong to contact dermatitis. Picture 2

Differential diagnoses:

It should be performed with other forms of eczema (nummular, seborrheic) and with other entities such as erysipelas, impetigo, etc.

### Medical treatment:

**Oral corticosteroids or antihistamines**, when they appear all over the body.

Drug dermatitis- These skin lesions can be treated with a **topical corticosteroid**.

Contact dermatitis -**Óxido de Zinc 25%-> Pasta d'agua cream or paste** ( Diaper Dermatitis)



# Bacterial Pyodermatitis

Pyodermatitis is a cutaneous infection with pyogenic (pus-forming) bacteria. Although the term pyoderma means “pus in the skin,” the pus may not always be visible to the eye. All Superficial bacterial infections are common skin diseases. The manifestations are variable and have a broad spectrum of differential diagnoses.





## Bacterial Cellulitis

Infectious cellulitis occurs when bacteria enter the skin through a crack or break. One of the most common causes of cellulite is streptococcus, or streptococcus, group A.

**Medical treatment:** The drugs we have in the boat for treatment are:

Oral: 1\* **Cefalexin** 500 mg. 1 every 6 hours for 7 days.

2\* **Sulfamethoxazole/Trimethoprim** 800/160 mg to 1600/320 mg orally 2 times a day.

3\* **Doxycycline** 100 mg orally every 12 hours

Skin: **Triple Antibiotic Cream.** Apply a small amount 2 times a day in the affected area.





## Impetigo

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Impetigo is a bacterial skin infection most common in young children. A topical ointment is recommended for only a few sores, and oral antibiotics can be used when there are more sores.

**Medical treatment:** The drugs we have on board for the child's treatment are:

Skin: **Triple Antibiotic Cream.** Apply a small amount 2 times a day in the affected area.

Oral:

1\* **Cefalexin** 250 mg/5ml every 6 hours for 7 days.

2\* **Sulfametoxazol** 200mg + Trimetoprima 40mg/5ml orally 2 times a day.





## Boil (Furuncles) or Skin Abscess Portuguese: Abseso, Nacida O Tumor

A boil is a painful, pus-filled bump that forms under the skin when bacteria infect and cause inflammation of one or more hair follicles.

The doctor will make a small cut in the abscess so that the pus it contains can drain out. The cut is left open so it can drain well and heal independently.

### Medical treatment:

The drugs we have on board for treatment are:

Oral: 1\* **Cefalexin** 500 mg. Every 6 hours for 7 days.

2\* **Sulfamethoxazole/trimethoprim** 800/160 mg to 1600/320 mg orally 2 times a day.

3\* **Doxycycline** 100 mg orally every 12 hours

Skin: **Triple Antibiotic Cream**. Apply a small amount 2 times a day in the affected area.



## Hidradenitis suppurative

### Portuguese: Nacida O Tumor

This chronic, scarring skin disease affects the apocrine glands, the sweat glands. It causes painful lumps and boils on the skin, especially in the armpit, groin, breast, and anus—one of the most common causes of: Staphylococcus Aureus, or streptococcus, group A.

**Medical treatment:** The drugs we have for treatment are:  
Skin: **Triple Antibiotic Cream.** Apply a small amount 2 times a day in the affected area.

Oral:

1\* **Doxycycline** 100 mg orally every 12 hours.

2\* **Cephalexin** 500 mg every 6 hours for 7 days.

3\* **Sulfamethoxazole/Trimethoprim** 800/160 mg to 1600/320 mg orally 2 times a day.





## Carbuncle/Anthrax



A carbuncle is a group of boils that form a connected area of infection, most commonly caused by *Staphylococcus aureus* or *Streptococcus pyogenes*.

Compared to single boils, anthrax causes a deeper and more severe infection and leaves a scar. It may have four or five heads, where pus forms in each. People with a carbuncle often feel unwell and may have fever and chills.

**Medical treatment:** The drugs we have for treatment are:

Oral: 1\* **Cefalexin** 500 mg every 6 hours for 7 days.

2\* **Sulfamethoxazole/trimethoprim** 800/160 mg to 1600/320 mg orally 2 times a day.

3\* **Doxycycline** 100 mg orally every 12 hours

Skin: **Triple Antibiotic Cream.** Apply a small amount 2 times a day in the affected area.

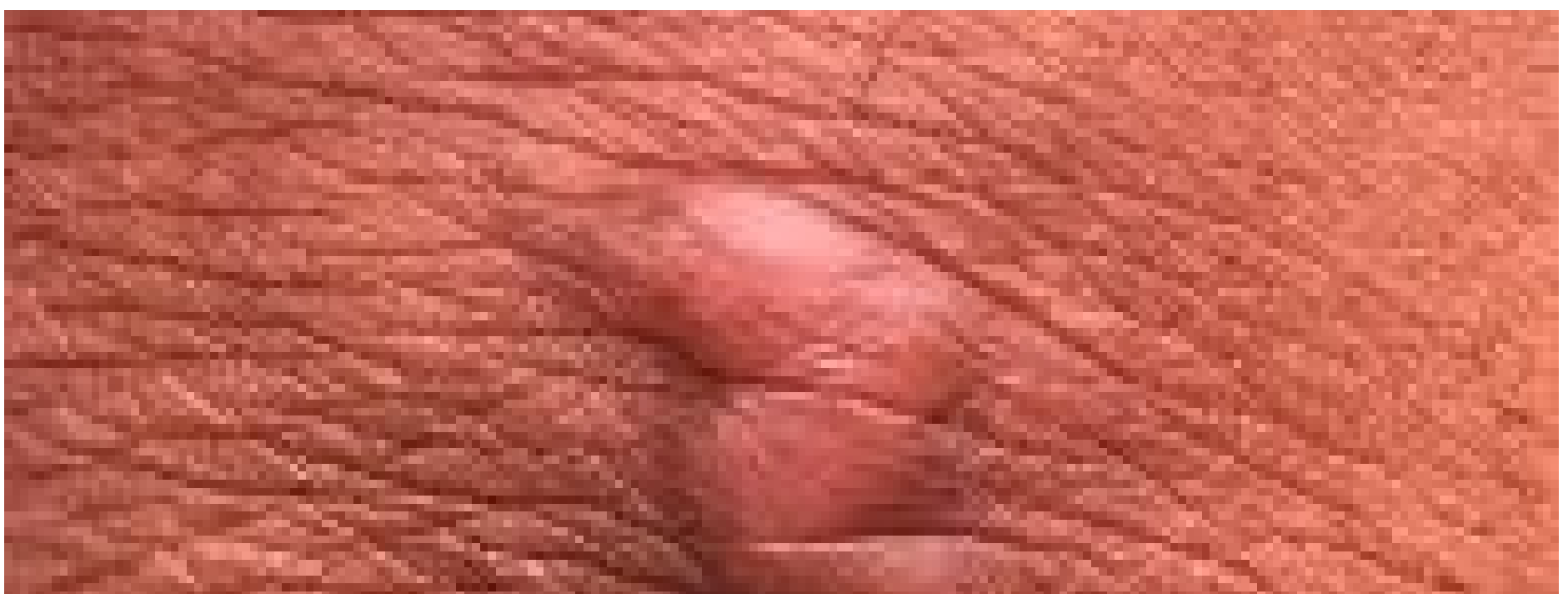


## Leprosy

### Portuguese: Hanseniase ou Lepra

Spots (white, reddish or brownish) in area(s) of the skin with altered thermal (to heat and cold) and/or painful (to pain) and/or tactile (to touch) sensitivity. Whitish spots with a slight decrease in sensitivity to heat, cold and pain.

We do not offer any treatment for leprosy, if it is discovered or you have strong suspicions, you must speak to our Brazilian doctor or trip leader, so that he can refer you to a health center for treatment. In Brazil, treatment is free of charge for everyone





## Herpes Zoster-Shingles

It is a painful rash, usually caused by an infection, that appears on either side of the face or body. The rash consists of blisters that generally only appear on the chest in 7 to 10 days and disappear in 2 to 4 weeks.

**Medical treatment:** The drugs we have for treatment are:

Oral: Anti-inflammatories: (as strong as possible)

1\* **Diclofenac** 75mg

2\* **Nimesulida** 100mg

3\* Skin: -**Acyclovir Ointment**: Apply in to the affected area(s), 4 to 6 times a day -Wet compresses





## Pee-bug / Paederus Portuguese: Potó

*Paederus brasiliensis* is a Coleoptera insect that, upon landing on the skin or being pressed against it, secretes a caustic substance called Paederin that produces slow-healing superficial burning ulcerations, accompanied in some cases by discomfort and fever.

### Medical treatment:

Cortisone cream: Apply a small amount 2 times a day until the symptoms disappear.

To prevent infections, apply **triple-antibiotic cream** 2 times a day.





## Chigger Portuguese: Mucuí

Chiggers are small mites that leave clusters of bites. You'll notice that chigger bites are small, red and typically quite itchy. They may look like tiny blisters or pimples or be more like hives. The mites tend to bite along the clothing line, where skin peeks out just above your socks or at the waistband of your leggings. Chiggers might also bite in between folds of skin where it's warmer.

May also develop a rash around the bites.

### Medical treatment:

**Dexamethasone 1mg/g.** Cream: Apply a small amount 2 times a day as needed.

**Hydrocortisone 1% Cream:** Apply a small amount 2 times a day as needed.

Prevention is the best treatment. Always teach the team to go to the villages with insect repellent on their feet and legs. Upon returning to the boat, they should wash their feet and legs with Lysol diluted in water.



# Enteroparasitosis or Intestinal Parasites

Enteroparasites (EP) are unicellular (protozoa) or multicellular (helminths) organisms, adapted to live normally in the lumen of the human digestive system.

Many EPs have little health impact. Others can be severe, causing malnutrition and death.

More common in children and teens, often with family distribution. Both the variety and prevalence of EP are influenced by geoclimatic factors. They can affect any social level, but the conditions associated with poverty (social, cultural, economic) exaggerate exponentially their potential for damage.

Risk factors:

Lack of drinking water and waste disposal excreta.

Inadequate hygiene (hand washing), contaminated shoes, water, food, etc. The transmission is mainly fecal and oral.

It is essential to teach each one about hygiene during our clinic time.

## Symptoms y Signs

- Abdominal pain. (especially after meals)
- Diarrhea
- Nausea or vomiting
- Gas or bloating
- Dysentery (loose stools containing blood and mucus)
- Rash or itching around the rectum or vulva
- Stomach pain or tenderness
- Feeling tired
- Weight loss
- Passing a worm in your stool
- Sleep bruxism. (squeezes teeth while sleeping)
- Constant restlessness
- lack of attention. (especially at school)



# Enteroparasitosis or Intestinal Parasites

## Elminthiasis



## Protozoa



## Medical Treatment Enteroparasitosis or Intestinal Parasites

### Elminthiasis:

**Albendazole 400mg** –Tablet (Adult)

**Albendazole 40mg/ml** (Children) Liquid  
Single dose.

**Ivermectin 6mg Tablet.** The recommended dosage of ivermectin for the treatment of parasites is approximately **200 mcg of Ivermectin per kg of body weight**

(15 to 24 Kg) 1/2 tablet

(25 to 35 Kg) 1 tablet

(36 to 50 Kg) 1 1/2 Tablet

(51 to 65 Kg) 2 Tablet

(66 to 79 Kg) 2 1/2 Tablet

(80 or more Kg) 200 mcg/kg

### Protozoa:

**Secnidazole 1000mg Tablet,** Single dose.

**Metronidazole** 40mg/ml Liquid

30 to 40 mg/kg/day divided into three doses for  
Children



# Vaginal Discharge

## Portuguese: Corrimento Vaginal

Vaginal discharge is a clear or whitish fluid that comes out of the vagina.

Discharge is normal, but changes in the amount, consistency, color, or smell could indicate an infection or other problem.

Examples:

**Texture:** Vaginal discharge that is chunky, foamy or accompanied by itching and changes in color may mean the patient have an infection.

**Color:** Dark yellow, brown, green, or grey discharge may indicate an infection or other issue.

Yellow, grey, or green discharge may suggest a bacterial or sexually transmitted infection (STI). Trichomoniasis (a unicellular parasite)

Brown or red: Brown or red discharge is usually related to irregular menstruation or pregnancy (implantation bleeding).

If they have brown or red-tinged discharge and it's not their period, it may indicate a problem.

Clear or white: Normal vaginal discharge is clear, white or off-white.

If your discharge is white, but seems thicker than usual or causes itching, it may be a Yeast infection.

**Smell:** If the patient notice a fishy or foul smell to your discharge and changes in texture or color accompany it, may have a vaginal infection.

**Amount:** Some people produce lots of vaginal discharge, while others produce less. Certain factors like pregnancy, using birth control pills or ovulation can affect how much vaginal discharge you have.

Sudden changes in the amount of vaginal discharge you produce could mean something is wrong.

## Vaginal Discharge

### Portuguese: Corrimento Vaginal

#### Medical treatment:

We have on the boat for treatment:

Fungal vaginal discharge: ( white discharge)

**Nystatin Vaginal Cream**, (Tube with 60 gr + 14 applicators) -1 applicator full of vaginal cream daily, preferably at bedtime, for 14 days.

Oral: **Fluconazole** 150mg (4 tablets) 1 single weekly oral dose of 150 mg. Treatment is generally 2 to 4 weeks.

Bacterial vaginal discharge: (yellow, grey or green discharge)

**Metronidazole** Vaginal Cream, (Tube with 55g + 10 applicators) -1 applicatorful of vaginal cream daily, preferably at bedtime, for 7 or 10 days. It can be STI("Not always"). Be careful what we say to patients; those around them can hear.

**Doxycycline** 100mg (15 tablets), one tablet every 12 hours for 7 days

Fungal and bacterial vaginal discharge:

(There are times that women do not know how to explain well, making the diagnosis difficult. For these occasions, we have this option for both)

**Metronidazole-Nystatin Vaginal Cream** (Tube with 50g + 10 applicators) 1 applicatorful of vaginal cream daily, preferably at bedtime, for 7 or 10 days.

Parasite vaginal discharge: (unicellular parasite) Trichomoniasis: STI. (sexually transmitted infection)

**Metronidazole 250mg (20 tablets)**, one tablet every 8 hours for 7 days.

**Secnidazole 1000mg.** (2 tablets) Single dose



# Tropical Diseases Manual

This project is not complete. We need your help, suggestion and input. Please get in touch with us at:

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