

HOM Skin Disease Guide

Skin problems are one of the most frequent medical problems in Haiti. Skin problems generally fall into one of the following categories: 1) those associated with fever, usually a rash or secondary bacterial infection (cellulitis, lymphangitis, bacteremia, toxin-mediated) and 2) those not associated with fever. Most skin problems are minor and not accompanied by fever. Diagnosis of skin problems is based on the following:

- Pattern recognition of the lesions: papular, macular, nodular, linear, or ulcerated
- Location of the lesions: exposed versus unexposed skin surfaces
- Exposure history: freshwater, ocean, insects, animals, or human contact
- Associated symptoms: fever, pain, pruritus

While most skin problems occur in all ethnic groups, some occur more often in dark or black skin. Many skin diseases may also appear differently on dark or black skin - the characteristics and distribution of the rash on the body can be very useful in diagnosis

GUIDE TO RASH: DIFFERENTIAL DIAGNOSIS

"ITCHY"	HYPOPIGMENTION	PLAQUES/CRUSTS	NODULES	MACULOPAPULAR
Contact dermatitis	Leishmaniasis	Eschar	Cutaneous myiasis	Cutaneous larva migrans
Cutaneous larva migrans	Leprosy	Fungal infections	Erythema nodosum	Cutaneous myiasis
Eczema	Pityriasis alba	Impetigo	Gout	Lice/flea/insect bites
Pinta	Tinea versicolor	Kaposi's sarcoma	Kaposi's sarcoma	Lichen planus
Scabies	Vitiligo	Leprosy	Leprosy	Measles
Tinea corporis		Pinta	Pyomyositis	Rubella
Tungiasis		Psoriasis	TB abscess	Scabies
Varicella				Typhoid rose spots
				Typhus
				Varicella
NON "ITCHY"	PETECHIAE	VESICLES	URTICARIA	PUSTULES
Erysipelas	Dengue	Herpes Simplex	Drugs	Bacterial infection
Leprosy	DIC	Herpes Zoster	Gnathostomiasis	Irritant folliculitis
Measles	Hemorrhagic Fevers	Papular urticaria	Schistosomiasis	Psoriasis
Rubella	Meningococcaemia	Vasculitis	Strongyloidiasis	
Tinea Versicolor	Typhus	Varicella		
Zinc Deficiency				
Leprosy				

Clinical tips:

- When infections appear as rashes, the most common culprits are fungal or bacterial infections
- Bacterial skin infections occur more frequently after bites and wounds, particularly when good hygiene cannot be maintained. Organisms responsible are usually *Staphylococcus aureus* or *Streptococcus pyogenes*
- Widely distributed rashes affecting large portions of the skin are usually either viral or allergic

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CHICKENPOX (Varicella)

Varicella is most common in children aged 3-6 years. Symptoms tend to be milder in younger ages and risk of complications increase proportionately to the age of the patient. The usual incubation period is 10-21 days. The patient is contagious from 1-2 days before the appearance of rash until the lesions crust over, usually 5-6 days after the rash first appears.

Signs and Symptoms

- multiple blisters on your face, chest and back, and spreading downwards
- typically have lesions in multiple stages; red macules -> papular -> vesicular -> pustular -> crusted
- vesicles can be hemorrhagic
- fever up to 39.5 C for 3-6 days
- pneumonitis
- Encephalitis
- tachypnea
- RUQ pain/tenderness w/ or w/o jaundice



Treatment

Supportive: Benadryl for pruritis, Tylenol for fever and pain. *DO NOT use aspirin this can cause Reyes Syndrome*
For pneumonitis/encephalitis or other severe complications:

Acyclovir: Adult: 600-800mg p.o. 5x/d for 5 d

Peds: 80mg/kg/d p.o. divided qid for 5 d

CUTANEOUS LARVAMIGRANS (Hookworm)

Signs and Symptoms

- tingling at the site of exposure within 30 minutes of penetration of larvae
- intense pruritus and nonspecific dermatitis
- serpiginous (snakelike), slightly elevated, erythematous tunnels that are 2- to 3-mm wide and track 3-4 cm from the penetration site.
- lesions on the distal lower extremities, including the dorsa of the feet and the interdigital spaces of the toes, but can also occur in the anogenital region, the buttocks, the hands, and the knees.
- nonspecific dermatitis
- vesicles with serous fluid
- secondary impetiginization
- systemic signs include peripheral eosinophilia (Loeffler syndrome) and migratory pulmonary infiltrates



Treatment

Albendazole

- Adult: 400 mg p.o. qd for 3 d or 200 mg PO bid for 5 d with meals
- Pediatric: <2 years: 200 mg/d p.o. for 3 d and repeat in 3 wk, if necessary >2 years: as adults

Mebendazole

- Adult: 200 mg p.o. bid for 4 d
- Pediatric: <2 years: Not established, >2 years: Administer as in adults

Ivermectin

- Adult: 12 mg or 200 mcg/kg p.o. once
- Pediatric: <5 years: 150 mcg/kg p.o. once >5 years: Administer as in adults

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DENGUE FEVER

Dengue Fever is spread by the bite of infected mosquitoes. Symptoms usually develop 4-7 days after exposure.

Signs and Symptoms

- abrupt onset of high fever, chills,
- muscle aches
- frontal headache (often accompanied by retro-orbital pain)
- restlessness/lethargy
- faint macular rash on the torso and arms that becomes evident on the 2nd to 4th day of illness
- petechial rash may be found in classical dengue, as well as dengue hemorrhagic fever



Treatment

Treatment is supportive and includes Tylenol for pain and fever, rest and rehydration. Avoid aspirin/NSAIDS (risk of bleeding) Dengue can be ruled out if fever lasts > 2 weeks.

<http://www.who.int/mediacentre/factsheets/fs117/en/index.html>

ECZEMA

Eczema is a chronic condition that flares and remits; it is characterized by intense itching. Although it occurs twice as frequently in black skin, getting the right diagnosis is difficult as the eczema rash can be harder to identify in black skin, and is often confused with psoriasis, or fungal infections.

Signs and Symptoms

- pruritus
- hypopigmentation or darkened patches of skin
- thickening of the skin (lichenification)
- appears more gray, ashy or crusty



Treatment

- topical hydrocortisone
- oral steroids
- Benadryl
- moisturizers



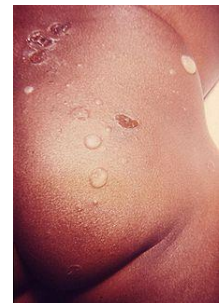
IMPETIGO

Signs and Symptoms

- red macule or papule progresses to a vesicle which ruptures easily to form an erosion, with characteristic honey-colored crusts
- pruritic Itching
- reddish raw-looking base when broken

Treatment

- anti-bacterial cream (Bacitracin)
- spontaneous resolution without scarring typically occurs in several weeks if the infection is left untreated
- antibiotics are recommended in severe cases (macrolides, cephalosporins, amoxicillin)



LEPROSY (Hansen's disease)

The majority of people exposed to patients with leprosy do not develop the disease because of their natural immunity. Leprosy has been classified according to the WHO system into:

1. Paucibacillary leprosy defined as fewer than five skin lesions with no bacilli on skin smear
2. Multibacillary leprosy defined as six or more skin lesions and may be skin-smear positive

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Signs and Symptoms

- most common initial presentation: A skin lesion
- sensory loss
- spares the face
- anhidrosis (absence of sweating)
- neuritic pain and palpable peripheral nerves
- nerve damage (most commonly affected nerves are ulnar, median, common peroneal, posterior tibial, radial cutaneous nerve of the wrist, facial, and posterior auricular)
- muscle atrophy and weakness
- foot drop
- claw hand and claw toes
- Lagophthalmos, nasal septal perforation, collapse of bridge of nose of eyebrows resulting in "leonine" faces



Diagnosis

A case of leprosy is diagnosed in a person who has one or more of the following cardinal signs and who has yet to complete a full course of treatment:

- hypopigmented or erythematous skin lesion(s) with definite loss or impairment of sensations
- involvement of the peripheral nerves, as demonstrated by thickening with sensory impairment
- skin smear positive for acid-fast bacilli

Treatment

Refer to leprosy hospital in Port Au Prince for treatment, can last up to 24 months depending on leprosy type.

MEASLES (Rubeola)

Measles is a highly contagious respiratory disease caused by a virus. Almost completely eradicated in the U.S., it is commonly seen in Haiti. Approx. 1 out of 10 children with measles also gets an ear infection, and 1 out of 20 gets pneumonia. Incubation period is 8-12 days from exposure to onset of symptoms.

Signs and Symptoms

Prodromal phase (2-4 days' duration):

- fever and malaise
- coryza
- conjunctivitis and conjunctival injection
- cough
- Koplik's spots (pathognomonic of measles - usually opposite the 2nd molars and characterized as bluish-white lesions on an erythematous base)



Exanthem phase:

- fever and malaise
- cough
- raised, red rash on that starts on the forehead and face, then spreads to the neck, trunk and and extremities, including the palms and soles
- during the healing phase, involved areas may desquamate except for the palms

The clinical case definition requires that all of the following be present:

- generalized rash lasting at least 3 days
- fever of at least 101°F (38°C)
- cough, coryza, or conjunctivitis



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Treatment

- Fluids, rest, and supportive care are the most appropriate treatment for most nonimmunocompromised patients
- Vitamin A can be used in children with evidence of poor nutrition, with severe measles, or who are at risk of complications. Vit. A 200,000 IU p.o. x 2 days is associated with a reduced risk of mortality rate.

PINTA

Pinta is a bacterial infection of the skin found in rural, poverty-stricken areas of South America, Mexico, and the Caribbean. More common in children and teens, it manifest in red to bluish-black colored spots and splotches, and discoloration of the skin.

Signs and Symptoms

- initial lesion starts as a papule that slowly enlarges to become a pruritic copper to grey to blue plaque
- dorsum of the foot and legs are the most common sites of lesions
- regional lymph nodes may enlarge.

Treatment

- Penicillin G benzathine (Bicillin LA)
Adult: 2.4 MU IM as single dose in 2 injection sites
Pediatric: 50,000 U/kg IM as single dose; not to exceed 2.4 million U
After penicillin therapy, lesions become noninfectious in 24 hours.
- Tetracycline (Achromycin, Sumycin)
Alternative for patients who are allergic to penicillin
Adult: 500 mg p.o. qid for 15 d
Pediatric: <8 years: not recommended >8 years: 25-50 mg/kg/d (10-20 mg/lb) p.o. qid
- Erythromycin (Erythrocin, E-Mycin, EES)
Indicated for the treatment of infections in patients who are allergic to penicillin or women who are pregnant. In children, age, weight, and severity of infection determine proper dosage. One half of the total daily dose may be taken q12h. For more severe infections, double the dose.
Adult: 500 mg p.o. qid for 15 d
Pediatric: 30-50 mg/kg/d (15-25 mg/lb/d) p.o. divided q6-8h



PITYRIASIS ALBA

Commonly affecting black children, this skin disorder is considered a mild form of eczema and usually responds well to topical therapy. Unlike vitiligo, the color change is temporary and disappears after treatment causes

Signs and Symptoms

- round, light patches with a fine, scaly texture
- most common sites are the face and arms
- light patches may turn red or burn in the sun

Treatment

- topical corticosteroid cream and moisturizers



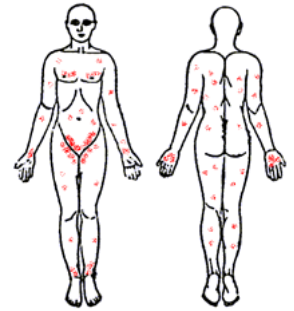
SCABIES

Transmitted by prolonged skin-to-skin contact. human source only. Passed among family members & sex partners. Complications: sores due to scratching. bacterial skin infection

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Signs and Symptoms

- primary lesions present as small papules with noticeable curvy or straight burrows located in skin folds, axillae, feet, thighs, elbows, genitalia, buttocks, breast areola and nipple, penis and scrotum, and interdigital web spaces. Spares the face.
- generalized, severe itching (esp at night) is most the common and earliest symptom
- pustules on the palms and soles of infants
- patient becomes better, then worse, after treatment with topical steroids
- rash is present in several members of the same family



Treatment:

Lindane or Permethrin (permethrin is drug of choice and can be used in all ages; lindane is approved only for age 2 and older)

- cream or lotion is applied to all skin surfaces below the neck and the face in children
- patients with relapsing scabies and the elderly should be treated from head (including the scalp) to toe. Reapply medicine to the hands if hands are washed.



SYPHILIS

Syphilis is transmitted during vaginal, anal, or oral sexual contact. Average time between infection and appearance of the first symptom is 21 days. Without treatment, the infected person can continue to have syphilis in their body even though there are no signs or symptoms. This latent stage can last for years and results in damage to the internal organs, including the brain, nerves, eyes, heart, liver, bones, and joints, this damage leads to death.

Signs and symptoms

Primary Stage

- single, firm, round, small, and painless sore on the genitals, anus, or mouth erodes to ulcerative crater with slightly elevated edges

Secondary Stage

- non-pruritic rough, red, or reddish brown spots on the trunk and extremities
- red papular lesions may appear on the palms and soles may become necrotic
- fever
- swollen nontender lymph glands
- sore throat
- patchy hair loss
- headaches
- weight loss
- muscle aches
- fatigue

Late and Latent Stages

- primary and secondary symptoms disappear
- fever
- jaundice
- anemia
- gradual blindness
- nighttime skeletal pain
- Cardiovascular syphilis usually involves the aorta & causes aneurysm formation
- Neurosyphilis manifests as an insidious but progressive loss of mental and physical function



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Treatment:

- Early latent: Penicillin G benzathine 2.4 MU IM once OR 2 g of azithromycin IM once
- Doxycycline 100 mg BID x 15 days (1st line agent for the PCN-allergic) OR
- 2 g of azithromycin IM once
- Late latent or unknown: Penicillin G benzathine 2.4 million units IM once a week for 3 weeks

TINEA CAPITITIS

Most forms of tinea capitis begin with one or several round patches of scale or alopecia. Most inflammatory lesions, even if untreated, tend to resolve spontaneously in a few months; the non-inflammatory infections are more chronic.

Signs and Symptoms

- patchy alopecia plus fine dry scale
- short stubs of broken hair or hairs broken off at surface
- swelling plus purulent discharge

Treatment:

- Griseofluvin (15 to 25 mg/kg/day) p.o. for 6 to 8 wk
- Terbinafine <20 kg: 62.5 mg qd , 20 to 40 kg: 125 mg qd >40 kg: 250mg qd for 2-4 wk
- Fluconazole (5 mg/kg/day or 8 mg/kg once weekly) 4 to 6 wk or 4 to 16 wk



TINEA CORPORIS (Ringworm)

Signs and Symptoms

- itchy, raised, red patches that may blister/ooze.
- redder on outside and normal skin tone in center (ring appearance)

Treatment

Anti-fungal creams (Clotrimazole, miconazole)



TINEA PEDIS (Athlete's foot)

Signs and Symptoms

- Itching, stinging, burning between toes and/or on soles of feet
- Excessive dryness, cracking/peeling skin
- Thick toenails that are crumbly, ragged, discolored or pulling away from nailbed

Treatment

Terbinafine (Lamisil), Clotrimazole (Lotrimin)

