

Ectoparasitic Infestations (Pubic Lice, Scabies)

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ECTOPARASITIC INFESTATIONS (PUBIC LICE, SCABIES)

PUBIC LICE

Etiology/Epidemiology

- Caused by *Phthirus pubis* (crab louse).
- Humans are the only reservoir.
- Shorter life span off host (24 hours) than head lice (several days).
- Usually present in pubic hair, but may also be found in chest, armpits, eyelashes or facial hair.
- Transmission occurs through intimate sexual and non-sexual contact.¹

Prevention and Control

- Patients presenting with concerns about sexually transmitted infections (STIs) and/or prevention of pregnancy should be provided with instructions and encouragement about the consistent practice of safer-sex.
- At the time of diagnosis, review and monitor prevention practices.
- Identify barriers to prevention practices and the means to overcome them.
- See *Primary Care and Sexually Transmitted Infections* chapter.

Manifestations²

- Itching, scratching, erythema, skin irritation and inflammation, all as a reaction to the louse bite.
- Small blue spots can appear where the louse has bitten.
- Extensive infestation can be associated with mild fever and malaise.
- Scratching can lead to a secondary bacterial skin infection.

Diagnosis

- Based on history and index of suspicion.
- Careful examination for adult lice and eggs (nits). Look for an area of scabs with nits in the hair; scabs may be adult lice. Nits attach to hair and are not loose and flaky.

Specimen collection and laboratory diagnosis

- If necessary, submit nits or scabs in a container for microscopic examination.

Management

- Clothes, bedding and fomites: washing in hot water (50°C) or dry cleaning kills all stages of lice. Alternatively, place in plastic bags for 1 week.
- Vacuum mattresses.
- Sexual partner(s) within the last month should be treated.
- May re-treat after 1 week if no clinical improvement. Pruritus may be controlled with antihistamines such as hydroxyzine or diphenhydramine, as well as mild topical corticosteroids.²

Treatment

- Wash the affected area and apply pediculocide formulation (cream, lotion or shampoo) according to package instructions.
- **Permethrin 1% cream** [A-I]
- OR
- **0.33% pyrethrin-piperonyl butoxide shampoo** [A-I]
- OR
- **lindane 1% shampoo** [A-I].^{2,3}
- May repeat in 3 -7 days.

Special Considerations

- **Pediculosis of the eyelashes should not be treated with permethrin, pyrethrin or lindane.**² Recommended treatment: occlusive ophthalmic ointment to the eyelid margins bid for 10 days.
- **Gamma benzene hexachloride (lindane) can cause neurotoxicity. Instructions for use must be carefully followed to minimize risk of toxicity.**³ **Contraindicated in children <2 years of age, in pregnancy, in lactating women or in patients with extensive dermatitis.**
- Permethrin cream has efficacy similar to lindane 1%, with less toxicity and cure rates greater than 80%.³
- Pruritus may persist for several days or weeks after treatment.
- In patients with excoriated or damaged skin, consider dose modification to compensate for increased absorption of topical agents.

(See below for *Consideration for Other STIs, Reporting and Partner Notification, and Follow-up.*)

SCABIES

Etiology/Epidemiology

- Caused by *Sarcoptes scabiei*.
- Incubation period is 3 weeks, but reinfestation provokes immediate symptoms (1 to 3 days).¹
- Transmission:
 - Often non-sexual, through close person-to-person contact (e.g., in families and institutions).⁴
 - May be via shared personal articles (clothes, bedding).
 - Sexual transmission does occur; usually need more than brief contact.

Prevention

- Patients presenting with concerns about STIs and/or prevention of pregnancy should be provided with instructions and encouragement about the consistent practice of safe-sex.
- At the time of diagnosis, review and monitor prevention practices.
- Identify barriers to prevention practices and the means to overcome them.
- See *Primary Care and Sexually Transmitted Infections* chapter.

Manifestations

- Intense nocturnal itching.
- Burrows under the skin.
- Lesions affecting hands (finger webs, sides of digits), flexor surfaces of the wrists, axillae, waist, nipple areola, periumbilical area and male genitalia.⁵
- Papules or nodules, which result from itching, often affect the genital area.
- Pyoderma of the penis.
- HIV-infected patients may present atypically with crusted or “exaggerated” scabies called Norwegian scabies.⁶

Diagnosis

- Based on history, index of suspicion and examination.
- Diagnosis is often difficult and therefore delayed.

Specimen collection and laboratory diagnosis

- If necessary, take a skin scraping of a burrow to remove the mite or ova for microscopic examination.¹
- Burrow ink test: apply fountain pen ink or a washable marker to outside of burrow, wipe skin (with alcohol). Burrows will retain the ink and may be visualized.²

Management

- Clothes, bedding and fomites: washing in hot water (50°C) or dry cleaning kills all stages of the organism. Alternatively, place in plastic bags for 3 days to 1 week.¹
- Vacuum mattresses.
- All household contacts and recent sexual partner(s) in the last month should be treated.
- Pruritus may persist for several weeks. Pruritus may be controlled with antihistamines and mild topical corticosteroids.

Treatment

- **Permethrin 5% cream [A-I].**^{2,3,7}

– Apply to the body from the neck down; leave for 8 to 14 hours; shower and wear clean clothes.

OR

- **Gamma benzene hexachloride (lindane) 1% cream or lotion [A-I].**^{2,3,7,8}

– Apply to the body from the neck down; leave for 8 hours; shower and wear clean clothes.

– More potential for toxicity than permethrin.

– **Contraindicated in children <2 years of age, in pregnancy, in lactating women or in patients with extensive dermatitis.**

• Alternatives:

– **Crotamiton 10% cream [A-I]** (less effective than permethrin or lindane).^{7,9}

This product is available through the Health Canada Special Drug Access Program.

• Apply nightly for two nights and wash off thoroughly 24 hours after last application.

OR

– **Sulphur 5% in petroleum [A-I]** (less effective than permethrin or lindane).^{7,9}

• Apply nightly for three nights and wash off thoroughly 24 hours after last application.

Special Considerations

- In pregnancy, permethrin is the only agent that should be used.²
- Gamma benzene hexachloride (lindane) can cause neurotoxicity. Instructions for use must be carefully followed to minimize risk of toxicity.³
Contraindicated in children <2 years of age, in pregnancy, in lactating women or in patients with extensive dermatitis.
- In patients with excoriated or damaged skin, consider dose modification to compensate for increased absorption of topical agents.

Consideration for Other STIs

- See *Primary Care and Sexually Transmitted Infections* chapter.
- Obtain a specimen for the diagnosis of *Chlamydia trachomatis* and *Neisseria gonorrhoeae*.
- Obtain a blood sample for serologic testing of syphilis (see *Syphilis* chapter).
- HIV counselling and testing are recommended (see *Human Immunodeficiency Virus Infections* chapter).
- Immunization against hepatitis B is recommended, unless already immune (see *Hepatitis B Virus Infections* chapter).

Reporting and Partner Notification

- Pubic lice and scabies are not reportable to local public health authorities.
- Partner notification of ectoparasitic infestations is not required.

Follow-up

- Follow up only if clinically necessary.