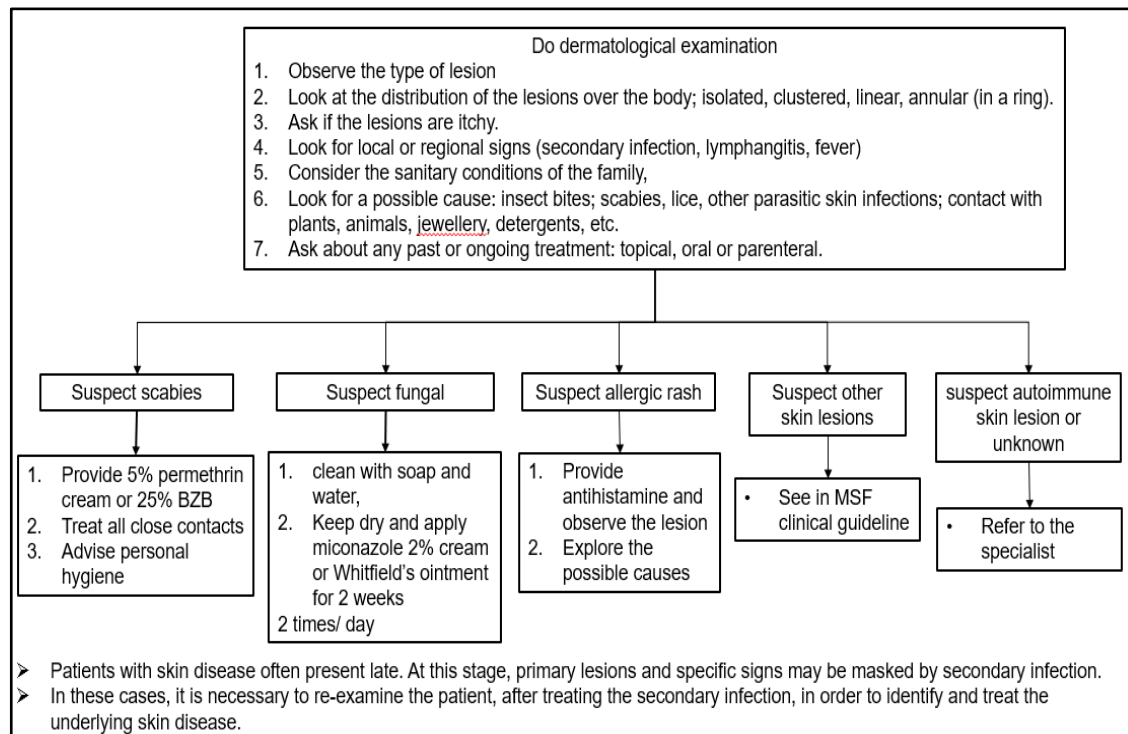
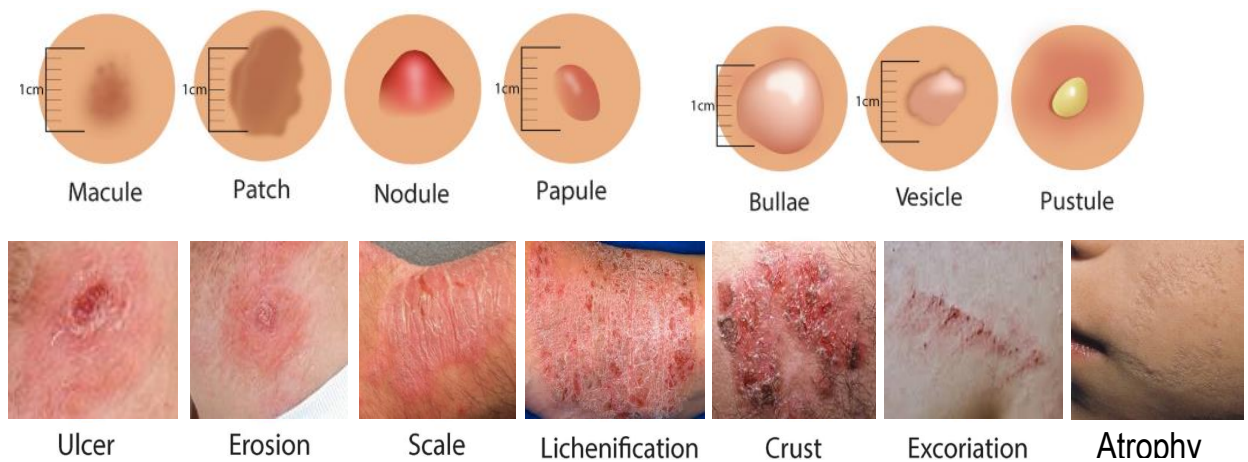


Management of skin lesions



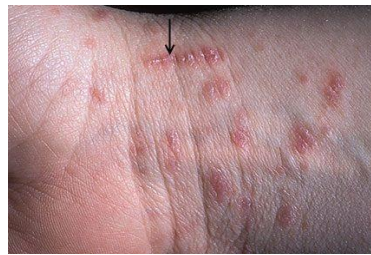
Type of lesions

- **Macule:** flat, non-palpable lesion, different in colour than the surrounding skin
- **Papule:** small (< 1 cm) slightly elevated, circumscribed, solid lesion
- **Vesicle** (< 1 cm), **bulla** (> 1 cm): clear fluid-filled blisters
- **Pustule:** vesicle containing pus
- **Nodule:** firm, elevated palpable lesion (> 1 cm) that extend into the dermis or subcutaneous tissue
- **Ulcer:** loss of the epidermis and at least part of the dermis that leaves a scar
- **Erosion:** loss of the epidermis that heals without leaving a scar
- **Scale:** flake of epidermis that detaches from the skin surface like psoriasis or dry skin
- **Lichenification:** thickening of the skin with accentuation of normal skin



Ordinary Scabies

- Itching, worse at night, very suggestive of scabies if close contacts have the same symptom
- Typical skin lesions:
- Scabies burrows (common): fine wavy lines (5 -15 mm); often in the interdigital spaces of the hand and flexor aspect of the wrist, but may be present on the areolae, buttocks, elbows, axillae. The back and the face are spared. Burrows may be associated with vesicles.
- Scabies nodules (less common): reddish-brown nodules (2 - 20 mm), on the genitals in men, persisting after effective treatment (they are not necessarily indicative of active infection)
- Secondary skin lesions: scratch mark, crusts from scratching, or super-infection (impetigo)



Scabies burrows and vesicles



Treatment of ordinary scabies:

1. Topical treatment:

- 5% permethrin cream (preferred)
in children ≥ 2 months of age
 - one application, with a contact time of 8 hours, then rinse thoroughly.
 - Repeat the application after 7 days.
- 25% benzyl benzoate (BZB); alternative



Scabies nodules

	Children < 2 years	Children 2 to 12 years	Children > 12 years and adults	Pregnant women
Dilution	1 part 25% BZB lotion + 3 parts water	1 part 25% BZB lotion + 1 part water	Use undiluted 25% lotion	Use undiluted 25% lotion
Contact time	• 6 hours for < 6 months of age • 12 hours for 6 months – 2 years of age, then rinse thoroughly	24 hours then rinse thoroughly	24 hours then rinse thoroughly	12 hours then rinse thoroughly
Number of applications	One application	Two successive applications (apply for 24 hours apart, then a rinse and dry, apply again for 24 hours)		One application

- applied over the entire body (including the scalp, post-auricular areas, umbilicus, palms and soles),
- avoiding mucous membranes and face, and the breasts in breastfeeding women.
- The recommended contact time should not be shortened or exceeded;
- In children under 2 years, the hands must be wrapped to prevent accidental ingestion of the product and contact with eyes.
- Topical scabicides should not be applied to broken or inflamed skin.
- Treat secondary bacterial infection (if present) 24 to 48 hours before use of topical scabicides with cloxacillin PO for 7 days

Treatment effectiveness is judged on clinical grounds.

- Itching may persist for 1 to 3 weeks after elimination of the parasite. Persistent itching may be due to another condition, initially masked by scabies.
- Persistence of typical burrows beyond 4 weeks should lead to suspicion of treatment failure or insufficient treatment, e.g. the scalp was not included or washing hands during the treatment period, or missing to treat contacts and environment).
 - In these cases, patient and contacts should be retreated.

2. Oral treatment: Ivermectin PO (200 micrograms/kg single dose)

- more practical than topical treatment (e.g. in the case of an epidemic or for treating contacts)
- can be started right away in the case of secondary infection.
- A single dose may be sufficient; a second dose 7 days later reduces the risk of treatment failure.
- Ivermectin is not recommended for children < 15 kg or pregnant women (safety not established).

Weight	15 to 24 kg	25 to 35 kg	36 to 50 kg	51 to 65 kg
Ivermectin 3 mg tab	1 tab	2 tabs	3 tabs	4 tabs

In all cases:

- Close contacts of the patient are treated simultaneously, even in the absence of symptoms.
- Clothing and bedding (including that of contacts) are changed after each treatment.
- washed at $\geq 60^{\circ}\text{C}$ then dried in the sun, or exposed to sunlight for 72 hours, or
- sealed in a plastic bag for 72 hours

Crusted (Norwegian) Scabies

- Thick, scaly, erythematous plaques,
- generalized or localized, resembling psoriasis, with or without itching (50% of cases).
- Delay in diagnosis may lead to a scabies epidemic.



Treatment of Crusted (Norwegian) Scabies

- simultaneous administration of oral ivermectin and topical scabicide at regular intervals, e.g. every week for 2 to 3 weeks or more, according to severity and clinical response.
- Crusts should be softened (salicylic acid ointment) and removed before applying local treatment (otherwise, local treatment is ineffective).
- As exfoliated skin scales may spread the parasite, the patient should be isolated during the treatment, staff should use protection (gloves, gowns and hand washing after contact), and environment (bedding, floors and surfaces) should be decontaminated.

Fungal skin infection

- Erythema of the perianal area with peripheral desquamation and sometimes pustules.
- Secondary infection may develop.



Name	Tropical treatment	Oral treatment
Scalp ringworm (Tinea capitis)	Shave hair short around the lesions. Miconazole 2% cream: 2 times daily for 2 weeks or longer	Itraconazole PO (if local treatment fails)
Ringworm of the body (Tinea corporis)	Treatment of secondary bacterial infection first if present. (cloxacillin PO for 7 days)	Adult: 200 mg OD for 2 to 4 weeks
Folds		Children: 3 to 5 mg/kg OD for 4 – 6 weeks
Tinea pedis (athlete's foot) Tinea cruris		Remarks: Reserve oral antifungals for extensive lesions

- Must be kept clean (ordinary soap and water) and dry.
- Avoid humidity, wearing loose clothes

Other skin lesions

