SKIN DISEASES

INTRODUCTION:

A good number of patients with skin diseases approach general practitioner for skin lesions, most commonly skin infections. They can be treated effectively if diagnosed correctly.

Here are some hints for diagnosis:

Did it start suddenly (over one or two days or even over one or two hours)?

If yes, think of urticaria – may start over minutes; presents with many weals that often change shape over hours; is always itchy: and often associated with insect bite or allergy. Rarely there maybe an associated difficulty in breathing. If this develops it is an emergency

If not, think of herpes simplex – vesicular lesions start over a few hours. Often occurs as part of fever and some other serious infection. Often around or in mouth, on face, or in eyes.

If the same type of vesicular lesions are in one or more lines and they are very painful think of Herpes Zoster.

Have skin lesions been there long time - over a few weeks?

If yes, the possibilities are:

Impetigo: Presents with pustules and crusts and scratch marks. This is usually a bacterial infection.

Scabies: Presents with many scratch marks and few small papules especially between fingers or toes and genitalia. This usually comes along with secondary bacterial infection.

Ring worm (not due to a worm but due to fungus):

Tinea cruris: There is a large plaque with scaling towards the edges and it is very itchy. Ringworm can also present as distorted nails, wet reddish lesions between toes, or area of loss of hair and itching over scalp (tinea capitis). Skin scrapings for microscopy show plenty of small hyphae that confirm diagnosis.

Pityriasis (tinea versicolor): if there are large macules which are of lighter colour than surrounding skin - this is a type of fungal infection - but it does not itch and there is no loss of sensation.

Leprosy: If there are large macules of lighter colour, which on pricking with a pin does not feel pain or the pain is less than elsewhere.

Leg ulcers: If over the leg or foot or ankle there is an ulcer that does not heal, think of chronic leg ulcers.

Eczema: If there are large macules and small papules in the lower limb or elsewhere that is full of weeping vesicles, with lot of itching and scaling of skin; then consider eczema. This may also present with impetigo.

Psoriasis: extensive plaques covered by loosely adherent silvery scales

BACTERIAL SKIN INFECTION

Superficial bacterial infection of the skin caused by pus producing organisms is called pyoderma. Common infective organisms are *Staphylococcus aureus* and *streptococci*.

Advise for proper hygiene and nutrition. Advise for removal of dirt. Crusts and necrotic debris by washing with non-medicated soap and water and drainage of pus. Majority of purulent lesions of skin structures do not need systemic antibiotic therapy.

A. ***Mild and localized superficial infection***

PHC	CHC	DH
Give topical therapy with following, which should be applied locally twice a day as a thin film after thoroughly washing the affected sites with soap and water for 7-10 days.	Give topical therapy with following, which should be applied locally twice a day as a thin film after thoroughly washing the affected sites with soap and water for 7-10 days.	Give topical therapy with following, which should be applied locally twice a day as a thin film after thoroughly washing the affected sites with soap and water for 7-10 days.
Cream Framycetin sulphate 1% in base.	Cream Framycetin sulphate 1% in base.	Cream Framycetin sulphate 1% in base.
Cream sodium fusidate base 2%.		

B. Multiple site superficial pyoderma, invasive varieties and secondary pyoderma

PHC	CHC	DH
Tab. Cotrimoxazole (sulphamethoxazole and trimethoprim) (960 mg) 12 hourly for 5-7 days. Cap. Cloxacillin 250-500 mg 6 hourly for 5-7 days. There should be follow up with CBC test. **In children:** 6 mg/kg/day of Trimethoprim in 2 divided doses for 5-7 days.	Cap. Cloxacillin 250-500 mg 6 hourly for 5-7 days. **In children:** 50-100 mg/kg in 4 divided doses for 5-7 days.	
If not responding with above mentioned treatment, refer to higher level.	Cap. Cephalexin 500 mg orally 6 hourlly for 5-7 days. **In children:** 30-50 mg/kg in 4 divided doses for 5-7 days.	

C. Impetigo

PHC	CHC	DH
	Cap. Cloxacillin 250-500 mg 6 hourly for 5-7 days. **In children:** 50-100 mg/kg in 4 divided doses for 5-7 days.	If no response within 48 to 96 hours, refer to tertiary level.
	Cap. Cephalexin 500 mg orally 6 hourly for 5-7 days. **In children:** 30-50 mg/kg in 4 divided doses for 5-7 days.	
	Tab. Erythromycin stearate 250-500 mg every 6 hour for 7 days. **In children:** Syr. Erythromycin 30-50 mg/kg/day	

CELLULITIS AND ERYSIPELAS

Streptococcal infection or the subcutaneous tissues, resulting from contamination of minor wounds.

Regimen A- no or low fever

PHC	CHC	DH
	Cap. Cloxacillin 500 mg 6 hourly for 7 days. **In children:** 50-100 mg/kg/ day 6 hourly.	
	Cap. Cephalexin 500 mg 6 hourly for 7 days. **In children:** 25 mg/kg per day orally in 3 divided doses.	

Regime B- high grade fever and symptoms of endotoxic shock

PHC	CHC	DH
	Inj. Amoxycillin plus Clavulanic acid 1.2 gm IV bd for 7-10 days. **In children:** Amoxycillin 6.7 mg/kg plus Clavulanic acid 1.7 mg/kg 3 times a day for 7-10 days.	
	Once improved, patients may be switched to oral equivalent dosages.	

If localized cellulitis

PHC	CHC	DH
	Cap. Amoxicillin 500 mg orally 6 hourly. **In children:** 50 mg/kg/day in 3 divided doses.	
	Cap. Cephalexin 500 mg orally 8 hourly. **In children:** 50 mg/kg/day in 3-4 divided doses.	

In patient hypersensitive to penicillin (or beta lactam), other class of antibiotic as per sensitivity of the organism may be used.

Cutaneous Tuberculosis

Cutaneous tuberculosis affects skin and/or mucosa with or without underlying systemic involvement.

Tuberculosis verruca cutis	Lupus Vulgaris	Scrofuloderma
Initial papule with violaceous halo. Evolves to hyperkeratotic, warty, firm plaque. Border often irregular. Lesions are usually single, but multiple lesions occur. Most commonly on dorsolateral hands and fingers.lower extremities, knees. No lymphadenopathy.	Initial papule ill defined and soft and evolves into well-defined, irregular plaque. Surface is initially smooth or slightly scaly but may become hyperkeratotic. Ulcerative forms present as punched-out, often serpiginous ulcers surrounded by soft, brownish infiltrate. Scarring is prominent, and, characteristically, new brownish infiltrates occur within atrophic scars.	Initially Firm subcutaneous nodule becomes doughy irregular, deep-seated node or plaque liquefies and perforates to form Ulcers and irregular sinuses, discharge pus or caseous material. Edges are undermined, inverted, fluctuating infiltrates and bridging scars. parotidal, submandibular, and supraclavicular regions are commonly involved

The drug regimen should ideally be a daily treatment regime in TB; however, it should be conform to national TB management guidelines. Treatment given in two phases:

1. Initial phase - 2 EHRZ/2SHRZ
2. Continuation phase – 4 RH.

Leprosy

Caused by *Mycobacteriumleprae*. Spread is by respiratory droplet and close personal contact.

Leprosy

Cord like thickening of nerves with or without pain and tenderness: esp. behind the ear, around elbow, wrist, knee and ankle joints

Numbness or tingling of hands or feet or loss of sensation: (temperature, touch, pain) esp. in tips of fingers and sole of the foot and over skin lesions

Disabilities and deformities of hands, feet and eyes

Claw hands or claw feet

Foot drop, wrist drop

How to diagnose leprosy

1. Check for sensations over skin lesions and over hands and feet

2. Palpate for peripheral or feeding nerve thickening

3. Slit skin smear if facility available

The three Cardinal Signs of Leprosy:
1. Hypo-pigmented or reddish skin lesion(s) with definite sensory deficit
2. A thickened or enlarged peripheral nerve with loss of sensation and/or weakness of the muscles supplied by that nerve
3. The presence of Acid-fast bacilli in slit skin smears or histopathology
Presence of any one out of three cardinal signs is essential to diagnose Leprosy

Pauci bacillary (PB)

1-5 skin lesions

No nerve or only one nerve with or without 1or 5 lesions

Slit skin smear negative

Multi bacillary (MB)

6 and above skin lesions

More than one nerve irrespective of number of skin lesions

Slit skin smear positive

Blister pack (adult MB)

Supervised treatment on day 1. Following is a 28-day cycle which has to be repeated 12 times.

Day 1. Rifampicin (R): 600 mg, Clofazimine (C): 300 mg, and Dapsone (D): 100 mg. Domiciliary treatment for 2-28 days: C: 50 mg, D: 100 mg.

Dosage (children< 10 years or adult <30 kg)

Day 1. Supervised R: 300 mg, C: 100 mg, D:25 mg.

Day 2-28 domiciliary: C: 50 mg twice a week D: 25 mg daily.

Duration: Patient has to take a total of 12 blister packs within 18 months.

Blister pack (adult PB)

Following is a 28-day cycle, which has to be repeated 6 times.

Monthly treatment

Day 1 (Supervised), R: 600 mg D: 100 mg.

Daily treatment: Day 2-28: D: 100 mg.

Dosage (Children<10 years or adult <30 kg)

Day 1. (Supervised) R: 300 mg D: 25 mg.

Day 2-28. D: 25 mg.

Duration: 6 blister packs within 9 months

Adult (single dose therapy) for single skin lesion

Rifampicin: 600 mg, Ofloxacin: 400 mg T

Child (single dose therapy): Rifampicin: 300 mg, Ofloxacin: 200 mg T

	< 30 kg	**30-45 kg**	**> 45 kg**
PB	Rif 300 mg po/mth	Rif 450 mg po/mth	Rif 600 mg po/mth
	Dapsone 25 mg/d	Dopsone 50 mg/d	Dapsone 100 mg/d
MB	Rif 300 mg po/mth	Rif 450 mg po/mth	Rif 600 mg po/mth
	Clofazimine 100 mg	Clofazimine 150 mg po/	Clofazimine 300 mg po/mth + 50 mg/d
	Po/mth + mg twice a	mth + 50 mg alternate day,	Dapsone 100 mg/d
	Week Dapsone 25 mg/d	Dapsone 50 mg/d	

If the treatment is interrupted for less than three months at a stretch, the regimen should be recommenced where it was left off to complete the full course. The patient should be reviewed in detail for persisting disease at the end of therapy.

Deformity: refer to higher center

Recent onset deformity: rest to limb with splint, start Tablet prednisolone 1mg/kg body weight and refer to higher center

Leprosy reactions

Type 1 reaction	**Type 2 reaction (Erythema nodosum leprosum)**
Skin lesions suddenly becomes reddish, swollen, warm,painful/ tender but the rest of the skin is normal, "fresh" lesions may be noticed Nerves close to skin may be enlarged, tender and painful (neuritis) with loss of nerve function (loss of sensation and muscle weakness) and may appear suddenly/rapidly Weakness of eyelid muscles leading to incomplete closure may occur (nerve involved)	Red, painful, tender, cutaneous/ subcutaneous nodules appear (not associated with Leprosy patches) appear commonly on face, extensor surfaces of arms and legs Nerves may be affected General condition is poor, with prominent fever and general malaise Internal eye disease (iritis, irido-cyclitis) occurs, lepromatous nodules are seen. Other organs may be affected

If there is no response with treatment or suspected case of leprosy, patient should be referred to

Management of complication (acute or subacute inflammation)

Reversal reaction or type 1 reaction and erythema nodosum leprosum or type 2 reaction

If the reaction is mild (no nerve involvement): Bed rest and paracetamol. If there is nerve involvement or suspected neuritis or signs of nerve damage- refer to a tertiary care hospital.Tab. Prednisolone 40-60 mg once a day and gradually reduced weekly or fortnightly and eventually stopped (12 week course).

Continue treatment with multidrug therapy (MDT) without interruption along with anti-reaction treatment.

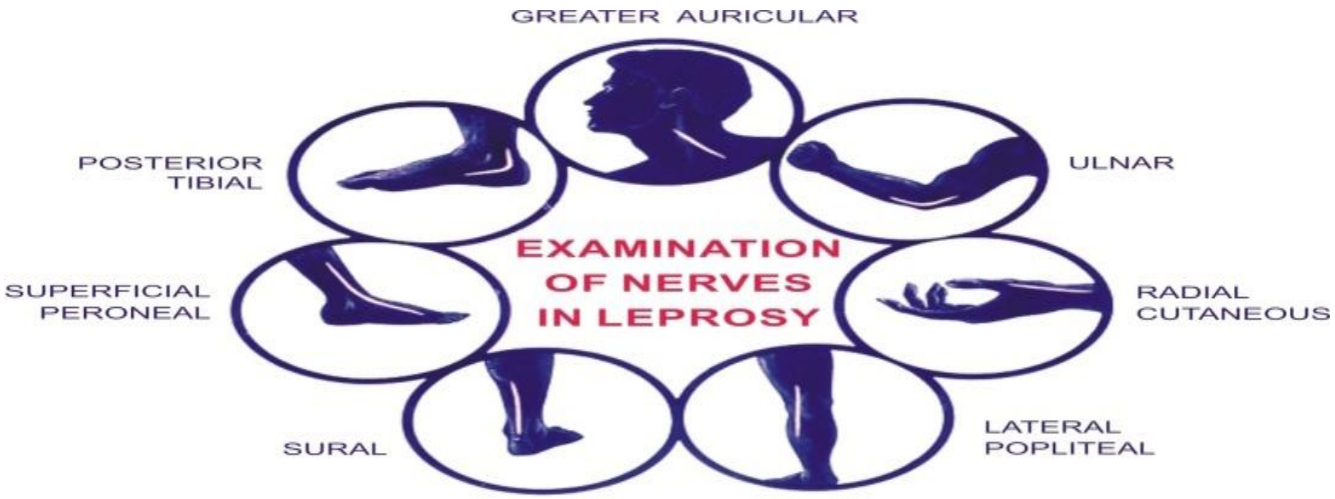


Fig. 6. Examination of nerves in leprosy

Start MDT, or continue MDT as earlier

Counseling to relieve stress

Treatment of inter-current infections and infestations

Analgesic, anti-inflammatory drugs (NSAIDS) (Mild reactions)

Bed rest

Rest to affected nerve using splint

Refer to higher center in case of severe reaction

VIRAL SKIN INFECTIONS

1. **Measles:**

- Fever , Malaise
- Cough/ Cold/ Conjunctivitis
- On the fourth febrile day, rash- Red macules and papules.
- Appear on forehead at hairline, behind ears spread centrifugally and inferiorly to involve the face, trunk extremities, palms/soles, reaching the feet by third day.
- Initial discrete lesions may become confluent, especially on face, neck, and shoulders.

- Lesions gradually fade in order of appearance, with subsequent residual yellow-tan stain or faint desquamation.
- Rash resolves in 4–6 days.
- *Oropharynx*/Koplik spots: Pathognomonic. Appear before exanthem.
- Cluster of tiny bluish-white spots on red background, appearing on or after second day of febrile illness, on buccal mucosa opposite premolar teeth.
- Self-limited infection in most patients.
- Complications more common in malnourished children, the unimmunized, and those with congenital immunodeficiency and leukemia.
- Vitamin A for 2 days in children
- Symptomatic analgesic and oral antibiotics if there is secondary infection.
- Prophylactic immunization.

2. **Chicken Pox**

Varicella - incubation period is about 14 days. Reactivation of disease results in Herpes Zoster or Shingles.

3. **Herpes Zoster (Shingles):**

This is another viral infection of the skin caused by the Varicella Zoster Virus

- Neuritic pain or paresthesia for 2–3 weeks (84% of cases) in the involved dermatome.
- Reddish swollen base with superimposed clear vesicles, sometimes hemorrhagic.
- Papules (24 h) → vesicles-bullae (48 h) → pustules (96 h) → crusts (7–10 days).
- New lesions continue to appear for up to 1 week.

PHC	CHC	DH
Pharmacological supportive therapy 1.Tab. Ibuprofen 300 mg 3/day **children:** 10 mg/kg/day. 2.Tab. Pheniramine 25 mg 2 / day **children:** 0.5 mg/kg/day every 8 hours.	**Pharmacological definitive therapy** When patient reports within 24-72 hours or has disseminated lesions Tab. Acyclovir 500 mg times a day Inj. Acyclovir 10 mg/kg IV	Refer in case of hearing defect and facial palsy, immunocompromised patient (HIV/AIDS and patient with chronic debilitated disease), involvement of ophthalmic division

4. **Herpes Simplex Virus Infection :**

Caused by HSV-1, HSV-2. Most transmission occurs when persons shed virus but lack lesions, usually skin-skin, skin-mucosa, mucosa-skin contact.

Incubation Period 2- to 20-day (average 6). Many primary HSV infection are asymptomatic.

- The patient should avoid contact until the entire lesion gets crusted.
- Herpes simplex 2 is transmitted via sexual route, so patient should take proper precautions
- Clean the lesions with chlorhexidine - 4 to 6 times a day.
- If pus or spreading surrounding redness develops treat as suggested for impetigo.
- If it affects the eye acyclovir drops -better prescribed by eye specialist.

Identify and avoid precipitating factors like sun exposure, febrile illness and alcohol intake.

PHC	CHC	DH
	Specific therapy in herpes labialis A. Mild case is self-limiting (5-7 days) and no specific is required. B. Moderate to severe case. Tab. Acyclovir 200 mg 5 / day for 7 days. **Prophylaxis** Tab. Acyclovir 400 mg 2 times a day Or 200 mg 3 times a day for 6 months to 1 year and continue supportive therapy.	**Prophylaxis** Recurrent episodes more than 6 per year, refer to a specialist

5. Human Papilloma virus: Cutaneous Infections (Warts)

▪ Discrete benign epithelial hyperplasia. Skin-to-skin contact transmission. Genital wart is sexually transmitted.

- Avoid contact with the infected patients. Transmission occurs via contact with breach in the skin and mucous membrane.
- Education on safe sex in case of genital warts.

PHC	CHC	DH
	For genital warts (to be given by the treating physicians) Podophyllin 20-25% in Tr. Benzoic Co. applied locally (after covering the surrounding normal skin with vaseline) weekly. Wash affected area after 1-2 hours.	1.Electrocautery - Verruca plana 2.Electrocautery/cryosurgery - Verruca vulgaris & Plantar warts

6. Molluscum contagiosum

A common pox virus infection of early childhood, transmitted by contact.

In adults, infection can be transmitted sexually.

Incubation period varies from 14 days to 6 months.

Individual lesion is shiny, pearly white, hemispherical papule with central umbilication.

Central core contains a cheesy material.

- Avoid any kind of direct contact with the infected persons.
- Avoid swimming pools, communal baths and contact sports.
- Partner education for prevention of this disease.

Adult patient with genital molluscum or extensive molluscum should be screened for STD and immunosuppression.

FUNGAL INFECTIONS/RINGWORM

1. Tinea versicolor and pityriasis captis (dandruff)

- Tinea versicolor - superficial, scaly, hypo-or hyperpigmented, irregular macules, on the trunk and proximal extremities
- Pityriasis capitis (dandruff) - diffuse itchy lesions over the scalp with hair loss
- Avoid oil application
- Frequent head wash and wash comb after each head wash.

PHC	CHC	DH
1.Fluconazole 2% lotion in shampoo base 3 times per week. 2. **In facial lesion (Tinea versicolor),** Topical Miconazole 2% cream apply twice daily for several weeks or Topical Clotrimazole 1% cream. 3. Tab. Fluconazole 400 mg as a single dose (can be combined with topical therapy for faster relief). Tab. Fluconazole 150 mg weekly for 4-6 weeks may be given to prevent early relapse.		

2. Pityriasis alba (patchy hypochromia) in children

PHC	CHC	DH
1. The topical preparations (emollients) should be applied at night and washed off in the morning. The treatment is maintained for 4-6 weeks.		

2. Hydrocortisone – 17 butyrate ointments P or cream 0.1% apply thin layer of cream on the affected skin twice daily until symptoms resolve.		

3. Ring worm (tinea cruris, capitis, ungum)

- ❖ Reddish macules, spread into arciform or annular lesions, margin active, red, vesicular and scaly, while centre shows scaling & discoloration.
- ❖ Hairy skin; scalp or beard shows patchy hair loss and skin shows broken stumps, erythema,
- ❖ Nail infection manifests with nails becoming brittle, friable, thickened and later eaten up.

Drug Treatment

PHC	CHC	DH
Topical agents The topical antifungal agents include: Miconazole 2% cream **Tablets** Clotrimazole 1% cream/powder/lotion Tab Cetrizine 10 mg OD for 10-15 days Tab Fluconazole 150 mg OD for 4-6 weeks or if not responding then Tab Terbinafine 250 mg OD for 3-4 weeks Refer to higher centre if no response		

4. Candidiasis

4.1. Paronychial lesions

- ➢ Common in people who do wet work
- ➢ Commonly affects the posterior nail folds more than lateral folds
- ➢ Nail fold shows erythema, boggy swelling, and occasionally discharge of pus on pressing
- ➢ Nail may show ridging and become discoloured
- ➢ To keep the affected area dry and clean.
- ➢ To stop all wet work
- ➢ Use of cotton gloves

PHC	CHC	DH
• Clotrimazole (1%) lotion to nail folds b.i.d. for 4 to 6 weeks • Cap. Fluconazole 3-6 mg/kg (maximum 150 mg) orally once a week depending upon the area affected for 4-6 weeks.		

4.2. Intertriginous lesions

Occur over infra-mammary, axillary, groin, perianal or interdigital areas.

- Eliminate conditions leading to moisture and maceration
- Expose the areas for drying up of the lesions and wear loose cotton clothes
- If lesion is inflammatory, tepid water compresses 3 to 4 times a day help to cool and soothe

PHC	CHC	DH
Topical 1% clotrimazole or 2% miconazole nitrate lotion twice daily for 14 days.		

4.3. Thrush

Whitish plaques loosely attached to oral or vaginal mucosal membranes. On removal, the underlying mucosa is bright red and moist.

PHC	CHC	DH
Clotrimazole mouth paint 2 to 3 times/day for 2 weeks, if it persists (usually there is association with oesophageal candidiasis) Tab. Fluconazole (150 mg) one tablet stat. if recurs 1 Tab Fluconazole 150 mg for 7-10 days		

4.4. Vulvovaginitis:

To wear cotton underwear and avoid tight clothes.

PHC	CHC	DH
Clotrimazole vaginal tablet (100 mg) one tablet at bedtime for 7 days **Recurrent vulvovaginal candidiasis** Tab. Fluconazole (200 mg) one tablet as single dose.		

SCABIES

Caused by arthropod mite (*Sarcoptes scabiei*). Transmitted by close personal contact after an incubation of 3-4 weeks. Night time itching, excoriated papules, papulovesicles, burrows on interdigital clefts, wrist, axillary folds, breasts, periumbilical region, medial thigh and genitals.

Maintenance of adequate personal hygiene by daily bath with soap and water.

PHC	CHC	DH
For infants, neonates, children, pregnant and lactating mothers. Permethrin cream 5% to be applied generously, after bath, at bedtime, covering entire surface on the body below neck (except face). Minimum contact period 8-12 hours; single application is to be washed off next morning. *Tab. Cetirizine 10 mg at night for 10-15 days.* ***children:*** *0.3 mg/kg/day single dose* If secondary infection- antibiotics	After one week, if problematic itching persists, a topical anti- pruritic such as crotamiton either alone or in combination with hydrocortisone may be advised after ensuring adequacy of antiscabetic treatment.	**Specific therapy** **For children >5 years and adults.**Tab invermectin 200 mcg/kg as a single dose to be repeated after 2 weeks.

- Disinfestation of bedding and clothing by ordinary laundering and/or sun exposure
- In lactating mothers- before feeding, areola should be washed thoroughly with soap and water. After the feed, permethrin cream should be reapplied on breasts and hands.
- Itching will persist for a few days but usually resolves within 1-2 weeks.
- All family members and close physical contact symptomatic or not should be treated

URTICARIA

This is an allergic reaction of the skin. One needs to find out what the person was allergic to and remove it now and avoid it later. The lesion start over minutes. Many papules form that may change shape and size over hours. It is always itchy.

PHC	CHC	DH
Tab. Cetirizine 10 mg once daily. **In children:** 5 mg once daily. In severe cases, antihistaminics can be started intravenously and once controlled, patient in maintained on oral preparation. **Angioedema of the larynx is a medical**	Inj. Epinephrine in case of angioedema in 0.5-1.0 ml of 1:1000 IM.	Tab. Hydroxyzine 10-25 mg 3 times a day. Inj. Epinephrine in case of angioedema in 0.5-1.0 ml of 1:1000 IM.

emergency Inj. Hydrocortisone acetate 100 mg IV should be given immediately. Inj. Epinephrine in 0.5-1.0 ml of 1:1000 IM. Patients with severe airway obstruction may have to be intubated immediately.		

DRUG ERUPTIONS

- Due to injected, ingested, inhaled, instilled or applied drug.
- The chemical either can be a formulation or in processed foods or milk.
- Manifestation may be immediate (within one hour) accelerated (1-72 hours) late (>2 days)
- May be exanthematous, macular, urticarial, petechial, purpuric, bullous, erosions, exfoliative or erythematous plaques

PHC	CHC	DH
Tab. Chlorpheniramine (4 mg) one tablet t.i.d. Follow up with CBC, LFT, RFT Inj. Dexamethasone + Inj. Avil Tab. Prednisolone (20 mg) (up to 40-60 mg) / day in divided doses x 2 weeks. If severe, refer to higher center		

LICE INFESTATION

Infested clothing and bedding should be washed properly in hot water and dried in sunlight. Cloths should be ironed from inside special attention to seam line. In pubic lice infestation, sex partner should be treated as well, and search for other sexually transmitted infection (STI)

PHC	CHC	DH
1% Permethrin in surfactant rinse, single one hour application on the affected area. If persistent itching, Tab. Cetirizine 10 mg once daily at night for 7 days. C**hild:** (2-6 years): 5 mg	**1. Specific therapy** 1% Permethrin in surfactant rinse, single one hour application on the affected area.	**1. Specific therapy** 1% Permethrin in surfactant rinse, single one hour application on the affected area.

MYIASIS (MAGGOTS)

Myiasis is the infestation of body tissues of man and animals by the larvae of *Diptera* (two-winged flies).

Liquid paraffin and turpentine oil application is followed by gentle removal of the larva with the help of a forceps. Sometimes the punctum needs to be enlarged by cruciate incisions and a surgical referral as early as possible.

HEAT RASH

Miliaria is caused by obstruction of the sweat gland duct during hot humid summer seasons.

PHC	CHC	DH
1. Anhydrous lanolin or Calamine lotion locally Or Talc or any commercially available powders. 2. For relief of itching, Cetirizine 10 mg once daily at night		

- Frequent cool bath and aeration.
- To stay in cool environment to minimize the body's needed to sweat.
- No oil application over scalp and body.

PIMPLES / ACNE

Usually occurs in adolescents and young adults.

Washing/cleaning of face to keep skin non-sticky, dry and dirt free; shampooing

PHC	CHC	DH
Non-inflammatory acne. Retinoic acid cream/gel (0.025%; 0.05%)- at bedtime. Response is redness and scaling within 3-6 weeks. Treatment for 2-3 months. (**Caution:** Not to apply near/into eye/mouth; contraindicated in pregnancy and lactation) Cap. Doxycyclin in case of moderate to severe inflammatory acne 100-200 mg once daily for 4-12 weeks. The dosage can be reduced in accordance with the response and discontinued. Or Tab.Azithromycin 500 mg thrice daily for 6-8 weeks.	**Inflammatory acne.** **Mild cases.** . Benzoly peroxide gel 2.5%, 5% (safe in pregnancy) on clean skin at first once on alternate days then twice a day (or more) for 4-6 weeks. **Moderate to severe cases**	**Moderate to severe cases should be referred to a specialist preferably without treating with systemic antibiotics.**

	Tab.Azithromycin 500 mg thrice daily for 6-8 weeks.	

1. Topical therapy as above (o benefit if same drug is used topically as well as systemically).
2. Treatment may need to be continued for up to 6 months.

ALOPECIA AREATA

Non-scarring patchy loss of hair.

PHC	CHC	DH
	Topical agents may stimulate localized hair growth. Hydrocortisone acetate P ointments or cream 1% applied 1 to 4 times once a day as thin film; frequency of application is reduced when response is observed. Application is stopped as soon as lesion resolve.	

ECZEMA/DERMATITIS

Itching, redness, scaling and clustered papulovesicles, induced by wide range of factors

A definitive diagnosis of the type of eczema is mandatory, as different varieties of eczema require different management strategies. At primary health care level, the aim is to provide relief of symptoms and signs, appropriate to the stage of dermatitis and, subsequent referral to a tertiary care centre for diagnosis and appropriate management

1. Local treatment

Acute exudative eczema: Soak with dilute potassium permagnate solution (1:10,000) and 0.25% silver nitrate solution or 0.8% almunium subacetate solution.

In long-standing situation:

- Appropriate topical steroid **(Table)** in lotion/gel or cream base for 2-4 weeks.
- Lichenified lesions- topical steroid **(Table)** in ointment/emollient base for 2-4 weeks.
- If not responding from above, refer to higher centers.

Table: Preparations of local corticosteroids available in the market *

Group 1 (mild)	Hydrocortisone acetate 1%, Desonide 0.05%) Generally safe for chronic application. Safest amongst steroids for use on face, under occlusion/bandage, in neonates/ infants.
Group 2 (moderate potent)	(Clobetasone butyrate 0.05%, Mometasone furoate 0.1%, Fluticasone) propionate 0.01% betamethasone valerate 0.05%-0.1%) Hydrocortisone butyrate 0.1% - chronic dermatoses on extremities.

	Limited period only on face or intertriginous area under close supervision. Potential for local side effects with prolonged use.
Group3(potent)	(Betamethasone dipropionate 0.05%, Halcinonide 0.025%-0.1%) To be used on recalcitrant chronic dermatoses of adult only. Can cause systemic side effects.
Group 4 (super potent)	Clobetasole cream to be used for limited period of time (2 week at a time) as the risk of side effect is highest. Only when follow-up/supervision is good Use only in extremities and thickened skin lesions. Not to be used on face/flexures. Never in infants/neonates.

2. **Systemic treatment**

PHC	CHC	DH
Tab. Cetirizine 10 mg at bedtime till symptoms subsides. (Child- Syr. Cetirizine 0.3 mg/kg/day) or **Children:** Syr. Promethazine 1 mg/kg/day 3 times a day or once daily If there is no response with topical steroids and antihistamines, or in case of extensive eczema, refer to higher centers.	Tab. Prednisolone 0.25-0.5 mg/kg (maximum 40 mg) as a single oral dose given in the morning after breakfast for 7-10 days. This should be tapered and withdrawn as early as possible	

3. **Secondary bacterial infection: *S***hould be treated in the acute stage with systemic antibiotics (Tab Cefadranil 500mg BD).

SEBORRHOEIC DERMATITIS

Chronic greasy scaling and erythema of scalp, naso-labial folds, retro-auricular folds, axillae or groins

PHC	CHC	DH
Miconazole cream (2%) apply locally b.i.d. for 3 weeks. If not responding then, topical steroid lotion - Betamethasone (0.05-.1%) once / twice		

daily x 1 weeks. If recurrent, Ketoconazole 2% lotion + Zinc pyrethion thrice daily		

❖ Review patient after 3 weeks

NUMMULAR DERMATITIS

Coin shapes, well-circumscribed plaques of eczema over dorsa of hands, forearms, legs or other.

PHC	CHC	DH
Tab. Chlorpheniramine (4 mg) one tablet t.i.d. for 5 days.	Betamethasone Dipropionate cream (0.05%) topically for 2 weeks with Fusidic acid if bacterial superinfection	Betamethasone Dipropionate cream (0.05%) topically for 2 weeks with Fusidic acid if bacterial superinfection. If not responding then Prednisolone 0.25-0.5 mg for 7-15 days followed by tapering.

ATOPIC DERMATITIS

Chronic pruritic dermatitis, over face, neck and flexures

PHC	CHC	DH
Liquid paraffin Syp. Cetrizine 2.5-5 mg/5 ml SOS + topical Hydrocortisone 1% lotion once daily for 10 days. Refer higher center if not responding.		

PSORIASIS

Erythematous, sharply marginated plaques covered by loose adherent, silvery scales, which on removal may show pinpoint bleeding.

Patient suffering from less than 10% body involvement may only be treated at a primary care level. If greater than 10% body involvement refer to specialist for initiation; and then continue at PHC

Avoid systemic corticosteroids.

PHC	CHC	DH
Salicylic acid (3%) in white Vaseline, a thin layer daily Cap. Vitamin A 50,000 to 1 lac units od x 3 weeks followed by one week break. Tab. Cetrizine 10 mg 3 times a day	Refer to a tertiary care centre, if patient shows no improvement in 6-8 weeks or develops pustular psoriasis, psoriatic arthropathy or erythroderma.	.

In scalp psoriasis, oil application used daily at night /Tar shampoo on alternate day to be used + liquid paraffin.		

LICHEN PLANUS

Lichen planus is a symptom complex of itching and self-limited eruptions in the glabrous skin, mucous membrane, hair and nails. The natural history is variable with usual course of 9-18 months.

PHC	CHC	DH
Tab. Cetrizine 10 mg 3 times a day Betamethasone is valuable Duration of the treatment is usually 3-6 months.	**Extensive lichen planus :** Tab. Prednisolone (0.25-0.5 mg/kg) maximum 40 mg daily as single dose in the morning for 6 weeks and thereafter gradually tapering over a period of another 6 weeks.	

Lichen planus is noninfections disease and noncancerous. It is neither inherited nor related tko nutrition and is self-limiting. Recurrences may occur.

VITILIGO

White patches of skin

To be treated at a tertiary care centre.

Must be continued for 6 to 18 months. Each patient responds differently to therapy

1. Depigmentation of the unaffected area, if greater than 90% area is already affected to get uniformity in colour.
2. Surgical therapies

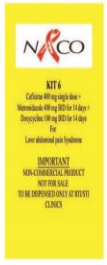
MELASMA (Dark Skin Patches)

Often in those taking oral contraceptives. Melasma of pregnancy usually resolve in few months after delivery - otherwise, spontaneous remission is rare.

Treatment

PHC	CHC	DH
Depigmenting agent hydroquinone 2-4% cream once daily topically + sun protection cream/calamine	Depigmenting agent hydroquinone 2-4% cream once daily topically + sun protection cream/calamine	

STI/RTI SYNDROMIC CASE MANAGEMENT

Urethral Discharge	Cervical Discharge	Painful Scrotal Swelling	Vaginal Discharge	Genital Ulcer-Non Herpetic		Genital Ulcer - Herpetic	Lower Abdominal Pain (LAP)	Inguinal Bubo (IB)
▪ Urethral Discharge (Pus or muco-purulent) ▪ Pain or burning while passing urine ▪ Increased frequency of urination ▪ Systemic symptoms like malaise, fever	▪ Nature and type of discharge (quantity, color and odor) ▪ Burning while passing urine, increased frequency ▪ Genital complaints by sexual partners ▪ Low backache *(Take menstrual history to rule out pregnancy)*	▪ Swelling and pain in the scrotal region ▪ Pain or burning while passing urine ▪ Systemic symptoms like malaise, fever ▪ History of urethral discharge	▪ Nature and type of discharge (quantity, color and odor) ▪ Burning while passing urine, increased frequency ▪ Genital complaints by sexual partners ▪ Low backache *(Take menstrual history to rule out pregnancy)*	▪ Genital ulcer, single or multiple, painful or painless ▪ Burning sensation in the genital area ▪ Enlarged lymph nodes		▪ Genital ulcer or vesicles, single or multiple, painful, recurrent ▪ Burning sensation in the genital area	▪ Lower Abdominal Pain ▪ Fever ▪ Vaginal Discharge ▪ Menstrual irregularities like heavy, irregular vaginal bleeding ▪ Dysmenorrhoea, dyspareunia, dysuria, tenesmus ▪ Lower backache ▪ Cervical motion tenderness	▪ Swelling in inguinal region which may be painful ▪ Preceding history of genital ulcer or discharge ▪ Systemic symptoms like malaise, fever etc
Tab. Azithromycin 1 gm OD Stat + Tab. Cefixime 400 mg OD Stat	Tab. Azithromycin 1 gm OD Stat + Tab. Cefixime 400 mg OD Stat	Tab. Azithromycin 1 gm OD Stat + Tab. Cefixime 400 mg OD Stat	Tab. Secnidazole 2 g OD Stat + Cap. Fluconazole 150 mg OD Stat	Inj. Benzathine penicillin (2.4 MU) - 1 vial Tab. Azithromycin (1 gm) - Single dose	**If allergic to Inj. Penicillin:** Doxycycline 100 MG (Bid for 15 days) Azithromycin 1GM (Single dose)	Tab. Acyclovir 400 mg TDS for 7 days	Tab. Cefixime 400 mg OD stat + Tab. Metronidazole 400 mg BD X 14 days + Doxycycline 100 mg BD X 14 days	Tab. Azithromycin 1 gm OD Stat + Tab. Doxycycline 100 mg BD for 21 days
KIT 1/Grey	KIT 1/Grey	KIT 1/Grey	KIT 2/Green	KIT 3/White	KIT 4/Blue	KIT 5/Red	Kit 6/Yellow	Kit 7/Black
								
Treat all recent partners	Treat partners when symptomatic	Treat all recent partners	Treat partners when symptomatic	Treat all sexual partners for past 3 months		No partner treatment	Treat male partners with Kit 1	Treat all sexual partners for past 3 weeks

IMPORTANT CONSIDERATIONS FOR MANAGEMENT OF ALL STI/RTI

- Educate and counsel client and sexual partner/s regarding STI/RTI, safer sex practices and importance of taking complete treatment
- Treat partner/s
- Advise sexual abstinence or condom use during the course of treatment
- Provide condoms, educate about correct and consistent use
- Refer all patients to ICTC
- Follow up after 7 days for all STI, 3rd, 7th, and 14th day for LAP and 7th, 14th, and 21st day for IB
- If symptoms persist, assess whether it is due to re-infection and advise prompt referral
- Consider immunization against Hepatitis B

NACO
National AIDS Control Organisation
India's voice against AIDS

suraksha clinic

Definitions

Primary lesions

Alopecia — absence of hair from a normally hairy area.

Burrow — a small tunnel in the skin that houses a parasite, such as the scabies acarus.

comedo (pl. comedones) — a plug of keratin and sebum in a dilated pilosebaceous orifice.

Cyst — any closed cavity or sac (normal or abnormal) with an epithelial, endothelial or membranous lining and containing fluid or semisolid material.

Ecchymosis (bruise) — a macular area of haemorrhage more than 2 mm in diameter.

Erosion — a loss of epidermis, which heals without scarring. It commonly follows a blister.

Erythema — redness of the skin produced by vascular congestion or increased perfusion.

Haematoma — a localized tumour-like collection of blood.

Keratoderma — a horny thickening of the skin.

Macule — a circumscribed alteration in the colour of the skin.

Maculopapular — rash consisting of both macules and papules.

Milium — a tiny white cyst containing lamellated keratin.

Nodule — a solid mass in the skin -a visible elevation or palpable. More than 0.5 cm in diameter. May consist of fluid, other extracellular material (e.g. amyloid), inflammatory or neoplastic cells.

Papilloma — a nipple-like mass projecting from the surface of the skin.

Papule — a circumscribed palpable elevation, less than 0.5 cm in diameter.

petechia (pl. petechiae) — a punctate haemorrhagic spot, approximately 1–2 mm in diameter.

Plaque — an elevated area of skin, usually defined as 2 cm or more in diameter.

Poikiloderma — the association of cutaneous pigmentation, atrophy and telangiectasia.

Pustule — a visible accumulation of free pus.

Tumour — literally a swelling. Enlargement of the tissues by normal or pathological material, or cells that form a mass. It may be inflammatory or non-inflammatory, benign or malignant.

Vesicles and bullae — visible collection of fluid within or below epidermis. Less than 0.5 cm in diameter and often grouped. Bullae are over 0.5 cm

Wheal — a transient area of dermal or dermal and hypodermal oedema, white, compressible and usually evanescent. It is often surrounded by a red, axon-mediated flare.

Secondary lesions

Atrophy — loss of tissue from epidermis, dermis or subcutaneous tissues.

crusts (scabs) — crusts consist of dried serum and other exudates.

Erosion — a loss of epidermis, which heals without scarring. It commonly follows a blister.

Fissure — any linear gap or slit in the skin surface.

Fistula — abnormal passage from a deep structure to the skin or between two structures. Often lined with squamous epithelium.

Lichenification — thckening of the epidermis (and to some extent also of the dermis) in response to prolonged rubbing.

Scale — a flat plate or flake of stratum corneum.

Scar — replacement by fibrous tissue of another tissue that has been destroyed by injury or disease.

Sclerosis — diffuse or circumscribed induration of the subcutaneous tissues. It may also involve the dermis, when the overlying epidermis may be atrophic. It is characteristically seen in scleroderma

Sinus — a cavity or track with a blind ending.

Ulcer (of skin) — a loss of dermis and epidermis, often with loss of the underlying tissues.