Dealing with Common Skin Problems

By Benjamin Barankin, MD; and Lyn Guenther, MD, FRCPC

In this article:

- 1. Taking a history.
- 2. The exam.
- 3. Common lexicons.

Akin problems represent Dapproximately 15% to 20% of visits to primary-care providers, underlining the importance of a good foundation of knowledge about dermatology.^{1,2} The diagnosis of a dermatologic problem is based significantly on the history and the physical examination. The importance of understanding and appropriately using dermatologic terminology is important both for note-taking and for referring a patient to a dermatologist.

Taking a history

Focused history taking is imperative to explaining the nature of a skin lesion. There are key historical questions that should be asked

Table 1

Approach to Describing Skin Lesions (LES T. CABS)

Location and distribution	Symmetrical, asymmetical, sun-exposed flexural/extensor, acral (hands/feet)
E rythema	Erythematous or non-erythematous lesions and/or underlying skin
Surface Features	Smooth, scaly, warty, crusts
Туре	Macule, papule, cyst, vesicle, pustule, ulcer
Colour	Pink, red, purple, white, brown, blue, yellow
Arrangement	Single or multiple, discrete, unilateral, generalised, disseminated, grouped, annular, linear, serpiginous
Border and shape	Well or poorly defined, active edge, round, oval, irregular, pedunculated
Special sites/systemic	Scalp, mouth, nails, genitalia, systemic disease and constitutional symptoms

Table 2 Common Lexicons in Dermatology				
Description	Definition	Example		
Abscess	Accumulation of pus in the dermis or subcutaneous tissue.	Staphylococcus aureus infection.		
Annular (arrangement)	Arranged in a ring shape.	Granuloma annulare.		
Atrophy (type and surface feature)	Depressed surface due to a thinned epi- dermis and/or dermis and/or subcutis.	Lichen sclerosus et atrophicus, necro- biosis lipoidica diabeticorum, pro- longed potent steroid use.		
Bulla (type)	Blister > 1 cm.	Bullous pemphigoid.		
Burrow (type)	Linear "S" shaped papule 3 mm to 5 mm.	Scabies.		
Comedo (type)	Plugged (pilo) sebaceous follicle: 1. Closed or whitehead 2. Open or blackhead	Bullous pemphigoid.		
Crust (or scab) (surface feature)	Dried serum, pus or blood.	Impetigo, herpes simplex or zoster.		
Cyst (type)	Sac containing fluid, cells or cell prod- ucts (<i>e.g.</i> , keratin).	Epidermal cyst, pilar cyst, or mucous cyst.		
Ecchymosis ("bruise") (type)	Large confluent area of purpura.	Post-surgery or trauma.		
Erosion (surface feature)	Partial loss of epidermis. Heals without scarring.	Eczema, lichen simplex, pemphigus vulgaris.		
Erosion (surface feature)	Redness that blanches on pressure.	Sunburn, cellulitis, erysipelas, fifth disease, or erythroderma.		
Erythema	Local damage due to scratching; con- sists of linear or pinpoint erosions or crusts.	Any pruritic lesion (<i>e.g.,</i> poison ivy dermatitis).		
Excoriation (surface feature)	Serum, blood or pus accumulated on skin surface.	Acute eczema, or contact allergic dermatitis.		
Fissure (surface feature)	Linear split in epidermis or dermis.	Eczema, or thickened calluses.		
Folliculitis (type)	Pustule (pus-filled lesion < 1 cm) involv- ing a hair follicle. Hair is usually contained in the centre.	Folliculitis due to Staphylococcus aureus.		

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and they are most easily recalled by the mnemonic **ABCDEF PPP**.

Acute or chronic? Lesions that have been present for only a few hours or days need to be differentiated from those that have been present for long periods of time. For example, urticaria comes and goes within 24 hours, while leiomyomas (also red papules) are chronic. The time of onset can be helpful in differentiating photo eruptions. Solar urticaria onsets within five minutes of sun exposure and clears within one hour, whereas polymorphous light eruptions occur several hours after exposure and last several days.

Behaviour: Recurrence in the same location is typical for herpes simplex infections and fixed drug eruptions, which both typically last seven to 10 days.



Figure 1. Psoriasis. Erythematous, circular plaque with dry, silvery-white scale and well-defined border. Note the associated nail changes.

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Description	Definition	Example
Furuncle (type)	Deep necrotizing type of folliculitis.	Furuncle due to Staphylococcus aureus.
Keratin/Horn (surface feature)	Arranged in a ring shape.	Actinic keratosis, squamous cell carci- noma, wart, corn.
Lichenification (surface feature)	Rough, uneven surface due to a build- up of keratin. Difficult to pick off, unlike crust.	Atopic dermatitis, or lichen simplex chronicus.
Macule (type)	Thickened epidermis with increased skin markings due to rubbing.	Freckle, lentigo, tinea versicolor.
Nodule (type)	Flat, pigmented lesion < 1 cm. Raised lesion > 1 cm with rounded sur- face and thickness similar to diameter. Dried serum, pus or blood.	Erythema nodosum, keratoacanthoma, or prurigo nodularis.
Papule (type)	Raised lesion < 1 cm.	Acne vulgaris, rosacea, lichen planus, dermatofibroma, skin tags, or syringo- mas.
Patch (type)	Flat, pigmented lesion > 1 cm.	Café au lait patch, nevus of ota, port- wine stain, Mongolian spot, melasma.
Petechia (type)	Small, nonblanching, red-brown maules.	Capillaritis, meningococcemia, externa or valsalva pressure (e.g. vomiting).
Plaque (type)	Raised lesion > 1 cm (diameter > thick- ness).	Psoriasis, or a giant hairy nevus.
Purpura	Red, purple, and brown skin which does- n't fade with pressure.	Henoch-Schönlein purpura, or thrombo- cytopenic purpura.
Pustule (type)	Pus-filled lesion < 1 cm.	Acne vulgaris, rosacea, or pustular psori- asis.
Scaly (surface feature)	Dry and flaky surface.	Psoriasis, seborrheic dermatitis, tinea, ichthyosis.
Scar (cicatrix) (type and surface fea- ture)	Healed dermal (or deeper) lesion two degrees to trauma or injury.	Hypertrophic scar, or keloid scar.
Sclerosis	Skin induration.	Morphea.
Serpiginous	Snake-like in appearance.	Elastosis perforans serpiginosa.

Change in size or colour: Pigmented lesions that change in size and colour, particularly if the change is asymmetric, should raise the suspicion of melanoma.

Discomfort: Many skin conditions are asymptomatic. Itching and burning may be helpful symptoms, but can be variable. Itching, particularly at night, may suggest scabies, however, contact dermatitis, atopic dermatitis, lichen planus, and psoriasis can also be quite itchy. Burning pain is typical of herpes simplex and herpes zoster.

External agents: The sun can induce a number of eruptions. If window glass prevents a suninduced eruption, ultraviolet B must be the cause since ureterovesical angle can pass through window glass. A walk through brush a few days before itchy eruption onsets may suggest poison ivy contact dermatitis. Detergents and chemicals and "protective" gloves can induce an allergic or irritant contact dermatitis. Does the skin condi-

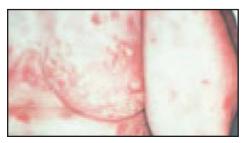


Figure 2. Pemphigus vulgaris. Dessiminated, multiple, discrete, flaccid vesicles and bullae primarily on normal-appearing skin, erosions, and crusts.



Figure 3. Atopic dermatitis. Adolescent with flexural (antecubital fossae) erythematous, poorly defined, scaly, lichenified plagues with excoriations.

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‡ A patient-year represents the total time of exposure to LIPITOR as defined by the sum of each patient time on LIPITOR.⁵

Table 2 Common Lexicons in Dermatology				
Description	Definition	Example		
Telangiectasia (type)	Small dilated blood vessels.	Rosacea.		
Ulcer (type or surface feature)	Full-thickness, loss of epidermis and at least some dermis. Surface exudates and/or crusting will be present. Heals with scarring.	Elastosis perforans serpiginosa.		
Umbilicated (surface feature)	Round depression in center of surface.	Molluscum contagiosum.		
Vesicle (type)	Blister < 1 cm.	Chicken pox, herpes simplex, pemphi- gus vulgaris, hand and foot and mouth disease.		
Warty/Papillomatous (surface feature)	Finger-like projections on the surface.	Wart, nevus sebaceous, seborrheic ker- atosis.		
Wheals (type)	Transient swelling due to dermal edema (synonymous with urticaria).	Urticaria.		

tion get better on holidays when there is no work exposure?

recur if there is repeat exposure.

Family history: A number of conditions such as psoriasis and atopic dermatitis often run in families. Scabies and head lice can be spread by close contact and other family members may be infested.

Pills and allergies: An acute generalised eruption may be due to a medication, particularly if that medication was recently introduced. Medications and allergies also may help determine treatment since there could be drug interactions.

Past history: It is helpful to know if the patient has had the eruption before. Atopic dermatitis in adult life is often associated with a history of infantile atopic dermatitis. Guttate psoriasis is commonly recurrent after reoccuring streptococcal pharyngitis. Contact dermatitis and drug eruptions may **Previous treatments:** Response to previous treatments may help determine the etiology and future treatment. Although topical steroids may decrease inflammation and erythema, they may propagate fungal infections. Acute dermatitis and psoriasis are usually steroid responsive, but chronic disease may be more refractory.

The exam

The physical examination of a patient is directed by the history. In addition to the examination of the area of complaint, it is often helpful to examine areas such as the scalp and other hair-bearing areas, as well as oral mucosa, genitalia, and nails. The appearance and palpation of individual lesions is important. There are certain characteristics of skin lesions that aid in the diagnosis. These qualities and characteristics are easily recalled using the

Table 3

History of Plaque Psoriasis

- A: Chronic with lesions persisting for months to years.
- **B:** Lesions tend to persist, but may come and go. The same areas (*i.e.* elbows, knees, lumbosacral area and scalp) are usually affected, but any site can be affected.
- **C**: Without treatment, the lesions usually persist unchanged, however, they may spread or clear.
- **D**: Pruritus is common.
- E: External agents do not usually have much impact, but harsh chemicals may cause irritation. Sun may improve the condition. Thirty per cent to 50% of patients have a history of developing psoriasis at areas of injury (Koebner's phenomenon).
- **F**: Approximately 1/3 have a relative with the disease.
- P: Beta blockers and lithium are among some of the medications that can aggravate psoriasis.
- **P**: There is usually a history of a previous similar eruption.
- P: Previous treatments for psoriasis may include topical steroids, tars, anthralin, calcipotriol, tazarotene, phototherapy and systemic medications.

Description of Plaque Psoriasis

- L: Symmetrically on the extensor surfaces including elbows, knees, and lumbosacral area, but can be anywhere on the skin.
- E: Erythematous.
- S: Dry, silvery-white scale.
- T: Plaques.
- C: Red.
- A: Multiple, discrete, may be disseminated.
- **B**: Well-defined border, circular-to-oval.
- **S**: Scalp and nails frequently involved; arthritis common (in 5% to 8%).

Table 4

History of Pemphigus Vulgaris

- A: Chronic
- **B**: Lesions come and go and can appear anywhere on the skin.
- **C**: Lesions may extend when pressure is applied to the periphery.
- D: Erosions are often painful.
- **E**: Sun can aggravate the condition.
- F: Family history negative. The patient may have an Ashkenazy Jewish background.¹¹
- P: Some drugs, including penicillamine and captopril, may induce pemphigus vulgaris.
- **P:** Usually negative past history of similar rash.
- **P**: Treatments include systemic steroids and other immunosuppressives.

Description of Pemphigus Vulgaris

- L: The skin may be clear and only the oral mucosa affected. Lesions may occur anywhere on the skin. The face, trunk, pressure points, groin and axillae are commonly affected.
- E: Blisters usually develop on normal appearing skin, however, they may occur on erythematous skin. Eroded skin is erythematous.
- S: Erosions and crusts.
- T: Primary flaccid vesicles or bullae are often sparse because they rupture due to skin fragility; secondary painful erosions.
- C: Clear fluid in the vesicles or bullae that appear on normal-appearing skin, or less commonly on an erythematous base. Eroded skin is red.
- A: Disseminated, multiple, and discrete.
- **B**: Well-defined borders. Lesions may spread at their periphery.
- S: Mouth, scalp, and genitalia may be involved. Conjunctivae and esophagus are more rarely involved.

Table 5 History of Atopic Dermatitis

- L: Facial and extensor involvement in infants and young children while the diaper area is usually spared. As children get older there is localisation to the flexural areas. Generalised dryness.
- **E**: Erythematous.
- **S**: Rough, scaly surface, lichenified. Excoriations may be evident.
- **T:** Papules, plaques, and patches; occasionally vesicles.
- C: Pink-to-red.
- A: Multiple, generalised.
- **B**: Poorly-defined border.
- S: In infancy, scalp involvement is common. Hyperlinear palms and soles. Nails may be very shiny due to persistent scratching. Eosinophilia and elevated serum IgE levels. Cataracts and keratoconus. Hay fever and asthma.

Describing Atopic Dermatitis

A: Chronic or relapsing.

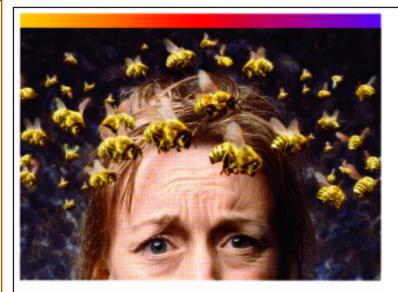
- **B:** Lesions may come and go, but often persist in typical areas. In infancy, the face, scalp and extensor surfaces of the extremities are commonly affected, with sparing of the diaper area. In older children and adults, the flexural folds of the extremities are affected and chronic hand dermatitis may occur.
- **C:** Lesions usually persist, but may clear and recur.
- **D:** Pruritus is usually intense.
- E: Irritants such as wool and detergents, excessive sweating, reduced humidity and allergens can aggravate the condition.
- **F:** The family history is usually positive for atopic dermatitis, asthma and/or hay fever.
- **P:** There is often a positive history of allergies.
- **P:** In adults, there is often a history of infantile atopic dermatitis.
- P: Previous treatments may include emollients, topical steroids, tars, tacrolimus and less commonly, phototherapy or systemic steroids/immunosuppressives.

mnemonic LES T. CABS (Table 1).

Once the elements of a focused history and physical examination are understood, the language of dermatology should be reviewed. One of the difficulties for many physicians is the proper description of skin lesions. Dermatology has a very rich descriptive language, yet an understanding and definition of 30 to 40 common descriptives is sufficient for most primary care providers (Table 2).

Using the History ABCDEF PPP and LES T. CABS physical examination mnemonics, and the appropriate dermatological lexicon, three classes of skin disease are described below.

Plaque Psoriasis: Psoriasis is a relatively common, chronic skin disease affecting approximately 2% of the population.³ There are several variants of which plaque-type is the most common (Figure 1). Presentation is bimodal in the 30s and again in the





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Take-home message

- An organised approach to the history and physical examination of skin lesions, coupled with the use of appropriate terminology, will result in an improved understanding of the presenting problem.
- Not only will it be easier to develop a more complete differential diagnosis, but also chart notes, referral requests, and the medical care of the patient will greatly benefit.

late 50s of life (Table 3).⁴

Pemphigus Vulgaris: This is an uncommon autoimmune disease of the skin and mucous membranes, resulting in superficial blisters and erosions (Figure 2). Pemphigus vulgaris is the most common form of pemphigus, with other variants including pemphigus foliaceus and paraneoplastic pemphigus.⁵ Oral erosions are painful and found anywhere in the oral cavity.⁶ Hoarseness may result from laryngeal involvement (Table 4).⁷

Atopic dermatitis: This is a chronically relapsing skin disease that affects 10% to 20% of children.^{8,9} It is commonly

associated with asthma or hay fever (Table 5). It typically presents in infancy, after two months of age. Many experience remission or considerable improvement by adolescence, although approximately 25% will continue to have relapses during adult life (Figure 3).

Other features include xerosis, keratosis pilaris, cheilitis, susceptibility to cutaneous infections, pityriasis alba, infraorbital fold, orbital darkening, wool intolerance, white dermatographism, elevated serum IgE and peripheral blood eosinophilia.¹⁰ Patients may present with an acute (pruritic, erythematous papules and vesicles with underlying erythematous skin), subacute (erythema, excoriation, or scaling), or chronic (lichenification, prurigo nodularis) lesions.

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Dealing With Common Skin Problems

1. How do I take a history?

History-taking includes observing whether the lesion is acute or chronic, and studying the behaviour of the lesion. It is also good to ask the patient if the lesion has changed size or colour, whether the lesion causes discomfort, and whether there are any external agents which affect the lesion. Other important information is the patient's family history, the patient's medication and allergies, whether the patient has had the same lesion in the past, and how the patient responded to previous treatment.

3. What do I look for on physical exam?

Look at the location and distribution of the lesion, whether there is erythema, what the surface features are, the type of lesion, the colour of the lesion, the arrangement of the lesion, the border and shape of the lesion, and special sites affected by the lesion. Benjamin Barankin, MD; and Lyn Guenther, MD FRCPC

2. How many patients present with skin problems?

Skin problems represent approximately 15% to 20% of all visits to primary-care providers.

For an in-depth article on common skin problems, please go to page 102.