

Skin Therapy Letter[®]

Volume 2 • Number 2 • July 2006

Clinical Evidence. Practical Advice.

EDITOR: DR. STUART MADDIN

Dr. Stuart Maddin, MD, FRCPC

EDITOR-IN-CHIEF

Dr. Stuart Maddin, Chairman of SkinCareGuide, is one of North America's leading dermatologists, and is the author of numerous dermatologic journal articles, monographs, and textbooks. In addition to providing consultative input to a number of pharmaceutical and biotech companies, he is the director of the clinical trials unit at the Division of Dermatology, University of British Columbia. Dr. Maddin has also acted in an advisory capacity to a number of drug regulatory agencies, such as the Health Protection Branch (Ottawa), the AAD-FDA Liaison Committee, and WHO (Geneva). He is the founder of the Dermatology Update symposia, now in its 21st year. As well, he is Past President of the Canadian Dermatology Association and served as Secretary-General of the International Committee of Dermatology – International League of Dermatological Societies.



Dr. Murray Awde, MD, CCFP

FAMILY PHYSICIAN ADVISOR

Dr. Murray Awde, MD, CCFP is an Adjunct Professor of Family Medicine at the University of Western Ontario and a clinical facilitator for McMaster University post-graduate courses. He is certified in Botox[®] (Cosmetics), Laser (Cosmetic), and Laser for pain control. He is Medical Director of Meridian Health Group in London Ontario (www.thelaserapproach.com).



Common Bacterial Skin Infections

M. H. Lupin, BSc, MD, FRCPC

Department of Dermatology, Faculty of Medicine, University of British Columbia, Vancouver, British Columbia, Canada

Introduction

Whereas the internal tissues of humans are normally free of microorganisms (save for some viruses), the “external” tissues, including the skin and gut, have a complex flora. The number of microorganisms far exceed the number of human cells, with more than 200 species of bacteria, along with eukaryotic fungi, and protists. Herpes viruses stay with us for life and reside in our nerves; the human papillomavirus also stays with us for life and resides in our skin cells. Generally, the relationship is commensal or mutualistic; however, when there is a breakdown in the integrity of the skin, or our immune defense is compromised, infections can result.

Classification

	Discrete Lesions	Diffuse Lesions
Superficial Infections	Impetigo Folliculitis	Erysipelas
Deep Infections	Ecthyma Furuncles Carbuncles Abscess	Cellulitis Necrotizing Fasciitis (NF)*

There may be a continuum of these various infections in any one individual.

*Although rare, NF is included for completeness

Most Common Pathogens

	Impetigo/ Ecthyma		Folliculitis/ Abscess	Erysipelas/ Cellulitis	
	Nonbullous	Bullous	+	Face	Extremities
<i>Staphylococcus aureus</i>	+	+	+	+	+
<i>Streptococcus pyogenes</i>	+				+

Impetigo and Ecthyma

- Typically honey-colored crust with erythematous vesicles, papules, pustules, or erosions; common area around nose and face.
- Children with atopic dermatitis are more susceptible.
- Nonbullous – usually *S. pyogenes* +/- *S. aureus*. *S. aureus* is more common in the northern climates; Bullous – usually *S. aureus*.
- Ecthyma is a deeper version of impetigo, more commonly seen in patients with malnutrition and/or poor hygiene – vesicles and bullae progress to punched-out, deep ulcers with adherent, dehydrated, serosanguinous crust; legs are the most common site and healing leaves scars.

Treatment

- Nonbullous: fusidic acid (Fucidin® cream) t.i.d. or mupirocin (Bactroban® Cream) t.i.d.
- Bullous: cloxacillin (Cloxapen®) 500mg, po, q6h or cephalixin (Keflex®) 500mg, po, q6h

Folliculitis, Furunculosis and Carbuncles (Folliculitis Group)

- A spectrum of infections involving the hair follicles
- Characterized by erythematous follicular-based papules and pustules. Hairs may be visible at the center of them.
- Often asymptomatic or minimally pruritic
- Hot tub folliculitis less common and due to *Pseudomonas aeruginosa* – usually clears spontaneously and is commonly distributed over the trunk, buttocks, and thighs.
- Furunculosis is a deeper infection of the hair follicle presenting with tender, erythematous nodules and suppurative drainage.
- Carbuncles are a coalescence of furuncles presenting as larger, tender, fluctuant, draining, inflammatory nodules.

Treatment

- Fusidic acid t.i.d. is indicated for bacterial folliculitis and bacterial paronychia.
- Cloxacillin 500mg, po, q6h or cephalixin 500mg, po, q6h

Abscess

- Fluctuant cystic nodule, may have a pointing pustule
- Usually tender and occasionally painful or sore
- *S. aureus* is the usual culprit
- Incision and drainage (I & D) is most important as well as taking cultures
- If there is a cellulitic component >5cm; if abscess cannot easily be drained; if location is on face; or if there are systemic symptoms (fever, chills); add a systemic antibiotic.

Treatment

- Fusidic acid t.i.d. is indicated and can be used alone or most commonly in combination especially in smaller lesions.
- Cloxacillin 500mg, po, q6h or cephalixin 500mg, po, q6h

Erysipelas and Cellulitis

- Erysipelas is a superficial infection with a predilection for young children and the elderly.
- Venous insufficiency, alcoholism, diabetes mellitus, and trauma are predisposing factors.
- Tender, well-defined erythematous and indurated plaques, most commonly on the face or legs, are characteristic of erysipelas.
- Cellulitis is a deeper process extending to the subcutis.

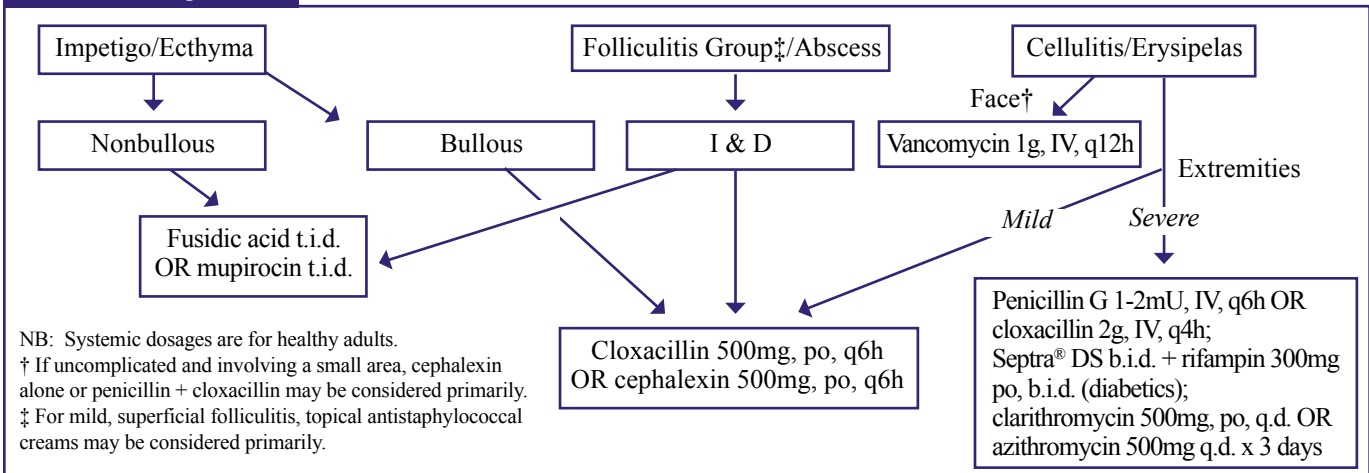
Treatment

- Face: vancomycin (Vancocin®) 1g, IV, q12h
- Extremities – mild
 - Cloxacillin 500mg, po, q6h OR cephalixin 500mg, po, q6h
- Extremities – severe
 - Penicillin G 1-2mU, IV, q6h OR cloxacillin 2g, IV, q4h
 - Trimethoprim/sulfamethoxazole (Septra® DS) b.i.d. + rifampin 300mg, po, b.i.d. (for diabetics) OR Clarithromycin (Biaxin XL®) 500mg, po, q.d., OR azithromycin (Zithromax®) 500mg, q.d. x 3 days

Self-Care

- Antibacterial washes such as triclosan (Trisan®, Tersaseptic®) and chlorhexidine gluconate (Hibitane®) may be considered 2-3 times/day.
- Warm compresses for 15-20 minutes 3-4 times/day.
- Important to consider I&D for larger furuncles, and carbuncles, and as a primary treatment of abscesses.

Treatment Algorithm



Bacterial Resistance

- Due to increased bacterial resistance to drugs in general, always obtain cultures if possible and test for drug sensitivity.
- A marked increase in methicillin resistant *S. aureus* (MRSA) has been noted in Canada and the US with as much as a 5-fold increase in prevalence in 2005 compared with 2003.
- In British Columbia in 2006, a dramatic increase in community-acquired MRSA has been noted. Clinically these infections look more aggressive.
- A presentation at a recent Canadian Association for Clinical Microbiology and Infectious Disease conference reported that monitoring shows that sensitivity of MRSA to topical fusidic acid has remained high (96%).
- The Centre for Disease Control has recommended that MRSA be a reportable disease.
- Community-acquired MRSA (CA-MRSA) is usually resistant *in vitro* to β -lactams (penicillin and cephalosporins) as well as macrolides/azalides (erythromycin, clarithromycin, azithromycin).
- CA-MRSA tends to be sensitive to TMP/SMX (trimethoprim/ sulfamethoxazole), tetracyclines (e.g., doxycycline [Doryx®], minocycline [Minocin®] and clindamycin [Cleocin®]) although resistance can occur.
- Hospital acquired MRSA (HA-MRSA) is usually resistant *in vitro* to multiple classes of antibiotics.

Measures to Help Minimize Bacterial Resistance

- Wash hands for 10-15 seconds with a good antibacterial wash.
- Povidine-iodine is good as a disinfectant.
- Counsel patients on the need to take a full course of prescribed therapy.
- Disinfect office furniture and office instruments, including stethoscopes, regularly.
- Culture any skin infection, if possible.
- I & D alone with warm compresses may be sufficient for uncomplicated abscesses (*vide supra*).
- Avoid routine use of antibacterial soaps, toothpaste etc.
- Canadian Committee on Antibiotic Resistance (www.ccar-ccra.com) is a good reference for up-to-date information on resistance patterns.
- Some antibiotics have ongoing Canadian sensitivity programs to monitor and confirm continued effectiveness against relevant bacterial pathogens.

PEARLS

- Nasal carriage of *S. aureus* is approximately 20%-30%, so it is important to treat the nose if there is frequent recurrence of infection or an outbreak among close family members. Mupirocin cream q.h.s. for 6 weeks is helpful. Rifampin can be added if needed. Routine treatment of the nose is not recommended.
- Folliculitis has a differential diagnosis of acne, irritant folliculitis, pityrosporum folliculitis, and candidal folliculitis.
- Acute paronychia is an inflammation around the nails and is commonly due to *S. aureus*, and occasionally *Candida albicans*; consider using a topical corticosteroid along with antibiotic therapy.
- Tinea corporis, which is inappropriately treated with corticosteroid creams, can present similarly to a folliculitis due to dermatophyte infection; take a skin scraping and pluck hair for fungal stains and culture.
- A full medical history, including family history of allergies, is imperative before prescribing any antibiotic therapy.
- For leg cellulitis, rule out and treat tinea pedis as a common portal of entry.

Conclusion

Recognition and appropriate treatment of these common bacterial skin infections, while at times challenging, can be very rewarding for both the physician and the patient. Selecting the right therapy from the beginning should help minimize complications, reduce the number of hospitalizations, and may also help reduce the climbing incidence of bacterial resistance.

Malassezia Infections of the Skin

D. R. Thomas, MD, FRCPC

Department of Dermatology, Faculty of Medicine, University of British Columbia, Vancouver, British Columbia, Canada

The Organism

Malassezia are lipophilic yeasts that are normal commensals on the skin surface. Named after French microbiologist Louis Charles Malassez (1842-1909), there are seven species of these yeasts, which were previously called *Pityrosporum*. They usually form colonies in the skin in late childhood and adult life, but can be found in some neonates. The conditions described in this article are either caused by the *Malassezia* itself or from some kind of immunological or toxic reaction to the organism.

Malassezia can cause:

- Dandruff
- Adult seborrheic dermatitis
- Pityriasis versicolor
- *Pityrosporum (Malassezia)* folliculitis

The treatment recommendations are based on evidence-based medicine, physician experience, and patient preference.

Dandruff

What It Is

- Also known as pityriasis capitis. Caused by *M. globosa* which produces oleic acid from its action on sebum, it is an irritant to skin.
- This is the mild end of the spectrum of seborrheic dermatitis. It is very common, with white scaling on the scalp but no inflammatory reaction, as seen in true seborrheic dermatitis.

Treatment

- Shampoos active against *Malassezia* yeasts are usually sufficient for this condition. These shampoos can be either antifungal, keratolytic (salicylic acid), or cytostatic (coal tar). They can be used daily until control is achieved, and then the frequency can be reduced to pm (often 1-3 times a week).

- Antiyeast shampoos
 - Over-the-counter (OTC)
 - Zinc pyrithione (Head & Shoulders®)
 - Zinc pyrithione shampoos have been developed in recent years to ensure that particle size, shape, and adherence of the therapeutic molecule give improved bioavailability, and therefore greater effectiveness. Cosmetically elegant shampoos are now produced with great acceptance by consumers.
 - Selenium sulfide (Selsun®) – very actively antifungal
 - Ketoconazole (Nizoral®)
 - Prescription
 - Ciclopirox shampoo (Loprox®)

Seborrheic Dermatitis

What It Is

- A common (5% prevalence) chronic relapsing rash seen in adults
- Quite well-defined erythematous lesions that do not cross the hair line of the scalp
- Accompanied by a greasy looking scale
- Located on the scalp, medial eyebrows, in and around the ears, central chest, and upper back. It may also be found in the intertriginous areas. Rarely, it is generalized.
- More extensive and inflammatory variants are seen in patients with AIDS.

Risk Factors

- Neurological conditions, e.g., poststroke, Parkinsonism
- HIV-AIDS
- Antipsychotic drugs

Differential Diagnosis

Scalp

Scalp Psoriasis

- Well-defined lesions that may extend beyond the hairline. The scale is more silvery than the greasy yellowish-brown colour

seen in seborrheic dermatitis. May have involvement in other typical sites. Central facial involvement uncommon. It may sometimes be impossible to distinguish the two conditions.

Tinea Capitis

- Usually seen in children. There is a spectrum of appearance ranging from mild scaling to boggy plaques.

Atopic Dermatitis

- May be aggravated on the face, neck, and upper chest by *Malassezia* yeast.

Face

Facial Rosacea

- Central face with papules and pustules. Flushing always present. Nasolabial and paranasal scale not usually present but blepharitis is seen in both. The two conditions quite frequently coexist. Systemic lupus does not exhibit papules and pustules.

Intertriginous Seborrheic Dermatitis

- Erythrasma, intertrigo, psoriasis

Treatment

The selection of therapy depends on the effectiveness, ease of use,

Seborrheic Dermatitis (continued)

and cosmetic acceptability of the products. The face, scalp, and chest are the most common sites of involvement.

Evidence-Based Therapy

- Oral and topical ketoconazole, and hydrocortisone are first-line treatments.
- Lithium succinate ointment, 15% propylene glycol in water.
- Zinc pyrithione shampoo (Head & Shoulders®)

Suggested Therapy

- Gain control of facial dermatitis with topical ketoconazole cream. Hydrocortisone 1% cream can be added if necessary.
- OTC: Antiyeast shampoos, e.g., zinc pyrithione (Head & Shoulders®) can be used in the shower, first on the **scalp** in the usual way, and then rubbing the lather onto the **face and chest** if

necessary and left on for 30-60 seconds before washing off. If this is not effective, other antiyeast shampoos can be tried in a similar fashion. Patients often prefer treating this condition in the shower rather than by applying creams.

- If the scalp is unresponsive to topical steroid solutions, gels and shampoos can be used on the scalp (e.g., betamethasone valerate solutions [e.g., Betnovate®] flucanide gels, clobetasone shampoo [Clobex®]).
- The use of immunomodulators such as pimecrolimus cream (Elidel®) has been found to be helpful for the control of facial seborrheic dermatitis that is unresponsive to other therapy. Tacrolimus ointment (Protopic®) has also been found to be helpful.

Pityriasis Versicolor

What It Is

- Infection confined to the trunk and proximal limbs when the yeast transforms into hyphae. Hair and nails are never involved.
- Fine scaly patches of varying color, red, brown, and white; usually in young adults. Seen on the upper trunk, neck, upper arms, and occasionally the scalp.
- Hypopigmented patches, caused by the yeast, produce azelaic acid, which inhibits melanin production. The hypopigmentation may last for months after the yeast overgrowth has been controlled. Occasionally the condition remits spontaneously.
- The diagnosis is confirmed by the appearance of spores and hyphae (spaghetti and meatballs) on KOH exam of skin scrapings of the scale.

Risk Factors

- Sun exposure
- Pregnancy
- Sweating
- Cushing's syndrome
- Interestingly, it is not more common in HIV-AIDS

Differential Diagnosis

Vitiligo is commonly seen on the face, hands and genitals. There is no scale present. Much more complete depigmentation. Frequent hyperpigmentation at the edges of the lesions, which often vary in size. Depigmentation of hair can occur.

- Other conditions to consider are tinea corporis and postinflammatory hypopigmentation.

Treatment

- The erythematous and brown patches tend to respond quickly to therapy.
- Hypopigmented lesions are slow to respond, persisting long after the yeast infection has cleared. Sun exposure may be required to stimulate repigmentation.

- High recurrence rate, especially for those who exercise and sweat regularly. Maintenance treatment is often required, especially in the summer months.

Evidence-Based Therapy

- Topical antifungal creams, i.e., ketoconazole, clotrimazole, and terbinafine have been shown to be effective. Ketoconazole shampoo is also effective.
- Oral itraconazole (200mg daily for 1 week), ketoconazole (400mg single dose, repeated in 1 week) and fluconazole (Diflucan®) (150mg-300mg weekly for 1 month) have been shown to be effective.
- Propylene glycol 50% in water b.i.d. for 2 weeks.
- 1% zinc pyrithione shampoo applied in the shower and left on for 5 minutes.
- Selenium sulfide 2.5% lotion daily and left on for 10 minutes for 1 week.
- A combination of honey, olive oil, and beeswax in equal parts used t.i.d. has been shown to be effective.

Suggested Therapy

- Patients can be given a choice of oral or topical therapy. The surface areas are large, making the application of antifungal creams difficult and costly.
- Most will clear with the OTC shampoos such as zinc pyrithione or ketoconazole applied in the shower and left on for a few minutes before being washed off.
- Selenium sulfide shampoos can be irritating.
- Those with very extensive or resistant involvement can opt for systemic therapy. It must be noted that oral terbinafine is ineffective for this condition. A short course of ketoconazole or fluconazole can be used at the doses shown above. Oral ketoconazole can be hepatotoxic, but is not thought a problem for such short courses.

Pityrosporum (Malassezia) Folliculitis

Seen in Three Scenarios

- Back and upper chest involved with itchy papules and pustules.
- Associated with seborrheic dermatitis on the upper trunk.
- Multiple pustules on the face and trunk in HIV+ individuals

Treatment

- Treat the underlying condition.
- Topical antiyeast creams are recommended.
- If no response to oral antifungals, treat as discussed for pityriasis versicolor.

Scaly Rashes of the Feet: Could It Be Fungal?

R. Vender, MD, FRCPC

Faculty of Medicine, McMaster University, Hamilton, Ontario, Canada

This article will deal with the diagnosis and treatment of common eruptions on the feet.

These conditions include:

Area of Foot	Condition
Soles	<ul style="list-style-type: none"> • Tinea pedis • Dyshidrotic eczema (pompholyx) • Psoriasis • Juvenile plantar dermatosis
Web spaces	<ul style="list-style-type: none"> • Tinea pedis • Dyshidrotic eczema
Dorsal surfaces	<ul style="list-style-type: none"> • Contact dermatitis

Useful tests include:

- KOH (Potassium hydroxide) exam of scale for fungus from skin and nail
 - Use a No. 15 blade and gently scrape scale from the edge of the plaques into the black transport paper, usually supplied by a diagnostic lab.
- Bacteriology culture swab
- Patch testing

Tinea Pedis (Skin and Nail)

- One of the most common dermatologic conditions
- Seen more often in men
- Almost always involves the lateral web spaces
- Soles involved and may spread onto the dorsal aspects, usually asymmetrically
- Nail involvement may follow from a skin infection or vice versa
- Cracking of the skin may create an entry site for bacterial infection producing secondary cellulitis
- Often asymptomatic but can be itchy
- Feet may be malodorous
- Painful if fissured

Tests

- KOH examination from the skin, subungual debris, or nail clippings confirms the diagnosis.
- Culture determines specific name of fungus. Check the dry scale or roof of blister. May be negative if significant inflammation.

Clinical Subtypes

- Web-space scaling and maceration. May have significant bacterial colonization.
- Dry type. Scaling can involve skin creases or the whole sole that has a powdery scale (moccasin type).
- Acute blistering. Small blisters often on instep
- Soggy white skin changes with cracking
- Nails can become involved and act as a reservoir for reinfection.

Treatment

- General measures, such as changes in footwear to reduce heat and sweating
- Wear cotton or absorbent socks.
- Relapses are very common with any type of tinea infection of the feet, so intermittent maintenance using topical antifungals should be considered after clearance has been achieved. Antifungal powders are only of value as prophylaxis.

Topical Therapy for Tinea Pedis

Area of Foot	Topical Therapy
Web spaces	<ul style="list-style-type: none"> • Ciclopirox (Loprox[®]) and terbinafine cream (Lamisil[®]) have been shown to be particularly effective. • Clotrimazole has also been shown to be effective but may be slower acting. • Ciclopirox may have the added benefit of antibacterial action.
Dry type of infection	<ul style="list-style-type: none"> • Confirm with KOH and culture first. • Topical therapy as above. • Oral antifungal therapy can be used if unresponsive to topicals. Monitor appropriate blood work.
Acute type of infection	<ul style="list-style-type: none"> • Confirm with KOH and culture first. • Compressing the blisters will be necessary. Use tap water or 1 oz household vinegar in 2 cups of water. Apply for 20 minutes q.i.d. to try to dry the blisters. This may take many days. • Topical antifungals should be applied after compressing. • Oral antifungals are often required. Monitor appropriate blood work.
Nail involvement	<ul style="list-style-type: none"> • Early or mild fungal nail infection can be treated by ciclopirox 8% nail lacquer (Penlac[®]) to be applied once daily for 48 weeks, with nail debridement performed by a health professional. • Systemic therapy can be added for more advanced infection.

Oral Therapy for Tinea Pedis

Tinea pedis

- Confirm with KOH and culture first.
- Terbinafine 250mg daily for 2 weeks
- Itraconazole (Sporanox®) studies suggest 400mg daily for 1 week or 100-200mg daily for 2-4weeks.
- Studies comparing these two drugs and using itraconazole at 100mg showed terbinafine to be much more effective. However, it is now known that a higher dose of itraconazole is required.
- Monitor appropriate blood work.

Nail

- Confirm with KOH and culture first and monitor appropriate blood work, i.e., CBC and LFTsat baseline and at 1 month.
- Ciclopirox 8% nail lacquer is effective in the milder forms of nail infection. Mycological cures in the range of 52% can be achieved. Adding ciclopirox 8% nail lacquer to terbinafine significantly increases cure rates.
- Terbinafine is thought to be the treatment of choice at a dose of 250mg daily for 3 months. Using this drug for 1 week every month for 3 or 4 cycles is almost as effective, reducing both costs and worries about side-effects.

Dyshidrotic Eczema (Pompholyx)

- A recurrent eruption affecting hands and feet seen mostly in young adults
- Associated with atopy, hyperhidrosis, stress and an allergic contact dermatitis
- Acute
- Intensely itchy
- Tiny blisters, which may become multilocular on soles and toes
- Less commonly found in the web spaces
- If pustules are present, swab for bacterial infection such as *Staphylococcus*.
- Once the blisters settle there may be a dry, chronic, scaly, fissured rash.

Treatment

Acute

- Compress blisters with saline, tap water, or 10% aluminum acetate for 20 minutes q.i.d. Large blisters can be drained.

- Moderate-to-high potency topical steroid creams should be used after compressing.
- Studies show that immunomodulators, such as pimecrolimus (Elidel®) and tacrolimus (Protopic®), could be added with benefit.
- Use oral antibiotics if there is a suspicion of bacterial infection, such as *Staphylococcus* or *Streptococcus*.
- Oral antihistamines can help with itch (sedation).
- In severe cases, oral prednisone (Deltasone®) for approximately 2 weeks should be utilized.

Chronic

- Change to moderate-to-high potency topical steroid ointment rather than cream.
- Using a topical corticosteroid intermittently, such as on weekends only, and using topical immunomodulators on weekdays has been reported.

Juvenile Plantar Dermatitis

- Seen in childhood up to the age of 15
- A tender, glazed erythema on the weight-bearing forefoot and toes
- Nonscaly and sometimes fissured
- No vesicles are observed
- Worsened by sweating; may be caused by alternating sweating and drying as experienced by those who wear 'sneakers'.
- Rule out fungus by KOH exam.
- 10% are patch test positive.

Treatment

- Minimize occlusive foot wear; change to cotton or absorptive socks.
- Mild topical steroid ointments b.i.d.
- Emollients such as petroleum jelly can be helpful.
- Occlusive ointments such as zinc paste can help some.
- Tar ointments have been reported as useful (e.g., 10% LCD in hydrophilic petrolatum).

Pustular Psoriasis of the Palms and Soles

- Creamy yellow, sterile pustules on an erythematous base
- The lesions are at different stages, and the pustules mature into a brown color and then become scaly
- 30% of patients have psoriasis elsewhere
- In children, especially infants, vesicopustules on the soles could suggest scabies.

Treatment

- Mild disease can be controlled with medium-to-potent topical steroids.
- Long-term risk of atrophy. Some may respond to calcipotriol combined with a corticosteroid (Dovobet®).
- Topical UVB/PUVA is useful in some patients.
- Acitretin (Soriatane®) or methotrexate (Trexall®) for resistant disease

Contact Dermatitis

- Although irritant dermatitis can be seen, allergic contact is a more significant problem.
- Itchy eczematous dermatitis on the dorsal aspect of the feet raises the possibility of a contact dermatitis, especially to footwear.
- The rash may be well defined at the area of contact, e.g., shoe tongue. The condition worsens with conditions that increase sweating, and in the summer months.

Treatment

- Identify and avoid the allergen.
- Patch testing is a must if there is clinical suspicion.
- Topical corticosteroids are the treatment of choice, but will not clear the condition if the allergen contact is still present.

SIGN UP FOR YOUR FREE SUBSCRIPTION

Skin Therapy Letter[®]

Family Practice Edition

EDITOR: DR. STUART MADDIN

Go online to www.SkinTherapyLetter.ca and sign up today!

Go online to read this quarterly dermatology publication for Family Practitioners

- Peer reviewed
- Patient counseling advice
- Current treatment information

To get more information, Canadian medical professionals and consumers can access all of our sites from www.SkinCareGuide.ca or go directly to:

Patient Sites:

AcneGuide.ca	EczemaGuide.ca	FungalGuide.ca	HerpesGuide.ca
RosaceaGuide.ca	SkinCancerGuide.ca	PsoriasisGuide.ca	PsoriaticArthritisGuide.ca
BotoxFacts.ca	Lice.ca	MildCleanser.ca	MohsSurgery.ca
ColdSores.ca	UnwantedFacialHair.ca	Sweating.ca	DermatologyCare.ca

Medical Professional Sites:

SkinTherapyLetter.ca	SkinPharmacies.ca	Dermatologists.ca
--	--	--

We would love to hear from you!

Please email us with your comments and topic suggestions to skintherapyletter@skincareguide.com

The following companies have provided an unrestricted educational grant for the distribution of our 2006 publications:

<i>LEO Pharma Inc.</i>	<i>Procter & Gamble, Inc.</i>
<i>Allergan, Inc.</i>	<i>Hoffmann-La Roche Ltd.</i>
<i>Galderma Canada Inc.</i>	<i>Stiefel Canada</i>
<i>Berlex Canada Inc.</i>	<i>Barrier Therapeutics</i>
<i>GlaxoSmithKline Consumer Healthcare Canada</i>	<i>Dermik, the dermatology division of sanofi-aventis Canada Inc.</i>

Copyright 2006 by SkinCareGuide.com Ltd. Skin Therapy Letter[®] – Family Practice Edition is published quarterly by SkinCareGuide.com Ltd, 1107-750 West Pender, Vancouver, British Columbia, Canada, V6C 2T8. All rights reserved. Reproduction in whole or in part by any process is strictly forbidden without prior consent of the publisher in writing. While every effort is made to see that no inaccurate or misleading data, opinions or statements appear in the Skin Therapy Letter[®] – Family Practice Edition, the Publishers, and Editorial Board wish to make it clear that the data and opinions appearing in the articles herein are the responsibility of the contributor. Accordingly, the Publishers, the Editorial Committee and their respective employees, officers, and agents accept no liability whatsoever for the consequences of any such inaccurate or misleading data, opinion, or statement. While every effort is made to ensure that drug doses and other quantities are presented accurately, readers are advised that new methods and techniques involving drug usage, and described herein, should be followed only in conjunction with the drug manufacturer's own published literature.