

DERMATOLOGY

[Return to Clinical Section](#)

[Welcome Page](#)

Introduction

General medical officers infrequently have extensive backgrounds in dermatologic conditions, and often only have a few fundamentals with which to make treatment decisions. Yet dermatologic problems are one of the most common reasons for visits to sick call in the operational environment, particularly when in hot, humid climates or shipboard. Working in conditions where cleanliness is often difficult due to limited wash facilities or water supplies makes the appearance of skin conditions a virtual certainty.

The following conditions are presented in a more bulletized format as some of the more common ones encountered, important clinical diagnostic points and a general outline for treatment rather than a comprehensive treatise on dermatology. Be aware that Seabees are often more at risk because of the nature of their work and exposures to large numbers of chemicals, irritants, dust and contaminated areas.

Tinea Cruris (jock itch)

- Expanding red plaque in the groin
- Confirm the diagnosis with KOH preparation
- Tinactin, Halotex, Lotrimin/Mycelex, or Micatin applied sparingly twice daily for two weeks. Any one of these, either solution or cream may be used.
- Switch to boxer shorts
- Keep area as dry and free from friction as possible
- Avoid meticulous over-cleansing

Monilial Interigo (candidal jock itch)

- Confirm the diagnosis with KOH preparation
- Treatment as above for tinea cruris
- Alternatively, use nystatin cream twice daily for 2 weeks
- Avoid Mycolog cream or any shotgun approach
- Boxer shorts
- Keep area as dry as possible
- Avoid meticulous over-cleansing

Tinea Jock Itch vs Candida Jock Itch

Color	Dull Reddish Brown	Bright Red
Moist??	No	Yes
Satellites	No	Yes

DERMATOLOGY

Raised Border	Yes	No
Scrotum Involved	No	Yes
KOH	Branching Yeast and Hyphae	Pseudohyphae

Athletes Foot

- Confirm diagnosis with KOH
- Treatment as above for Tinea Cruris
- Absorbent cotton socks
- Alternate pairs of shoes (to let shoes dry out)
- Powder feet and shoes
- Let feet air dry at the end of the day
- Athlete's feet usually starts in the web space next to the small toe and spreads across the foot. It rarely involves the top of the foot. It can involve the sole with scaling or a few large blisters. If blistering, do a KOH on the roof of the blister. Think of foot eczema or contact shoe dermatitis when the rash starts dorsally or medially on the foot! The newer topical antifungals are also quite expensive, but not necessarily more efficacious.

Tinea Versicolor

- Diagnosis - Pink, white, red or brown macules that appear on the chest, shouldrs, neck and sometimes the face. They exhibit a cigarette paper type fine scaling. Remember to use fingernail test (area finely scales when scratched). T.Versicolor is caused by a yeast normally present in all humans which overgrows in hot humid climates or patients working in hot environments. The lesions may be lighter or darker than the normal skin, the darker skin usually appearing later in the stage of expansion.
- Remember scaling resolves first, pigmentary change may take several weeks to improve.
- Selsun Solution applied to involved areas for 20-30 min. before showering daily for 7 days, then once or twice a week thereafter for maintenance is usually sufficient.
- Propylene glycol 50% in water can also be used, twice daily for two weeks then once or twice a week for maintenance.
- Or, 20% Sodium thiosulfate applied twice daily for 4-6 weeks.

Acne Vulgaris

- These suggestions are for garden variety mild to moderate acne. Refer severe cases or those which do not respond to these measures.
- Wash twice daily with Dial, Ivory, Safeguard or Fostex soap, but avoid excessive washing.
- Apply 5% benzoyl peroxide cream or gel twice daily to the skin after being allowed to dry after washing.
- With 10-20 or more inflammatory papules/pustules, add TCN 500 mg b.i.d. (1 hr before eating or 2 hrs after with large glass of water) for 4 weeks. Then decrease the dose slowly to zero over the next 2-4 months while continuing topical therapy above for at least 4-6

DERMATOLOGY

months.

- Topical antibiotic solutions (Cleocin-T, T-Stat) may be useful as maintenance therapy used b.i.d..
- Avoid all oily or greasy preparations on the skin of the acne growing areas (hair pomades, vaseline, etc.).
- Diet does not appear to be a major factor in acne.

Eczema

- (Eczema = Dermatitis = inflammation of the skin)
- Red, itchy, scaly and may be actively oozing if acute. It is more common in people with "sensitive skin." Atopic eczema is found in atopics (i.e. hx of asthma, hay fever, or infantile eczema). Contact dermatitis can be secondary to irritants (more common) or allergens (less common).
- The following therapeutic suggestions are relevant to eczemas of any etiology:
 - If it's wet ... dry it (Burow's Solution of one tab dissolved in a pint of water applied as a compress q.i.d. for 15 minutes.
 - If it's dry ... wet it (with emollient creams or ointments)
 - Topical steroids r.i.d.
 - Avoid any identified precipitating irritant or allergen
- Steroid Preparations
 - Solutions/Sprays - for moist, oozing lesions
 - Creams - for most subacute, dry lesions
 - Ointments - for very thick dry lichenified lesions
 - Weak (For children, face or genitals) - 1% Hydrocortisone
 - Medium - 0.1% Triamcinolone & 0.025% Synalar
 - Strong - Lidex, Cyclocort
- Beware the super potent topical steroids such as Diprolene or Temovate. These are best not used by most primary care providers.
 - Refer if the above measures provide no improvement.

Herpes (Mouth or Genitalia)

- Dx - grouped itchy/burning vesicles on an erythematous base confirm with Tzanck smear seeing multinucleate giant cells and/or culture if available
- Treatment? - No permanent cure
- Goal in most cases is to dry vesicles fast as possible for symptomatic relief and prevention of infection
- Tea bag soaks - make cup of tea, use warm tea bag as a compress, tannic acid is an excellent drying agent
- Burow's soaks (see eczema)
- Zovirax ointment is not helpful
- Zovirax oral capsules are useful in primary herpetic infection, frequent recurrence, or episodes with associated systemic symptoms, substantial adenopathy, (see PDR for doses). Most cases of recurrent HSV probably do not need Zovirax. Save it for the people who

really need it!

Warts

- Regular Warts
 - Goal is to allow the patient to continue his normal activities with a minimum of discomfort from the wart (or its treatment) while the body's immune system is stimulated to finish them off. Remember, the more aggressive the treatment, the more severe the side effects that produced. Don't be a therapeutic nihilist!
 - Duofilm or any other acid preparation in a flexible collodion base applied once daily to the lesion (avoid application to the normal skin), cover with bandaid then lightly abrade with pumice stone or emery board before reapplication the next day.
 - 40% Salicylic acid plaster (Mediplast) cut to fit the wart, peel off backing and paste to wart. Cover with a bandaid or moleskin. Remove, lightly abrade with a pumice stone or emery board and replace every 5-7 days. Avoid abrasion to the point of bleeding.
- Venereal Warts - remember to look for other STDs during the exam
 - 25% podophyllin in tincture of benzoin applied to the warts. Allow to dry. Lightly powder with talc. Rinse off with soap and water in 4-8 hours or sooner if irritation develops. Repeat if necessary every 2-4 weeks. Treatment can be frustrating for doctor and patient, but stick with it.
 - Never treat a large number at once, the irritation can be quite severe
 - ever encircle penis or anal verge with podophyllin, the edema will compromise urination and defecation.

Boil (Furuncle)

- Hot moist compresses q.i.d. for 15 minutes. Don't under estimate the value of this simple treatment!
- 10-14 course of anti-Staph antibiotic (Diclox, E-Mycin Keflex, Velosef etc.) 250-500 mg q.i.d.
- Incise and drain if abscess has "pointed."
- Always culture if facilities are available and drainage is present.
- Remember, your patient is a walking fomite and may be spreading the organism to his fellows!

Impetigo

- Itchy, honey colored, crusted, erythematous patches most frequently seen on head, neck and extremities, often around the nose and mouth.
- Warm tap water soaks with soap to remove crusts
- 10-14 day course of antibiotics (See Boil above)
- If in beard bearing area, avoid shaving until clear. Cleanse razor and use a new blade when shaving resumed.
- Always culture if facilities are available.
- Remember your patient is a walking fomite also, until the lesions cease to form new crusts!

DERMATOLOGY

Scabies

- Diagnosis - Itchy red papules (frequently crusted), most concentrated in web spaces, wrists, elbows, axillae, buttocks, genitals (very characteristic), and nipples. The lesions are frequently linear because of "burrowing". These lesions are intensely pruritic, especially at night. Frequently, they become secondarily affected by impetigo or eczema. Scraping of the scabetic burrow with a mineral oil moistened surgical blade or needle will frequently yield mites, eggs, or fecal pellets.
- Treatment- The most effective medications are Kwell cream or Elimite Cream used as follows:
- Apply the medication to dry skin from the jaw level down to the toes. Pay particular attention to treat all "cracks and crevices" and areas between the fingers and toes. Do not skip any areas!
- If you wash your hands, reapply the cream to them.
- Leave the cream on overnight
- While the medication is on the body, launder all clothing, bedding, towels, blankets that has been used in the past 2 weeks. A shipboard laundering is sufficient to kill the mites.
- One treatment will usually suffice. I sometimes will retreat one week later. Beware overtreatment, it will irritate the skin! Be aware that there have been cases of neurologic symptoms developing with excessive use.
- Treat close contacts (family, work-mates)
- Treat any secondary bacterial infection with anti-Staph drugs

Urticaria/Angioedema

- Diagnosis - evanescent wheals involving the skin or subcutaneous tissue (angioedema). Potential etiologies are large in number. In an operational setting the most common involve viral symptoms, Strep pharyngitis, Mycoplasma, drug reactions, hepatitis, mononucleosis, insect bites (bees, wasps), and ingestants.
- Treatment - Treat the underlying cause if it is apparente.
 - Antihistamines - Warn the patient of the sedative effects.
 - Atarax 10-50 mg q6h round the clock
 - Benadryl 25-100 mg q6h round the clock
 - Seldane 60-120 mg b.i.d. (usually not as sedating but not easily available and very expensive)
 - Colloidal oatmeal baths can provide soothing relief
 - If hypotension or airway symptoms develop, treat as anaphylaxis!
 - Topical steroids are of no benefit
 - Systemic steroids are only rarely required

Miliaria (prickly heat)

- Diagnosis - Pathogenesis involves occluded skin on a patient working in a hot, moist environment. Tiny red papules mostly on the trunk after prolonged environmental exposure.

DERMATOLOGY

- Treatment - Remove the patient from the offending environment if possible.
- Less occlusive clothing.
- Calamine lotion or other "shake lotions" may be soothing

Pseudofolliculitis Barbae

- Diagnosis - Usually self evident as keratotic follicular papules in bearded areas of black males with ingrown hairs. However, beware of acne vulgaris either masquerading as or exacerbating PFB!
- Treatment - Diagnosis is easy, treatment is not! However some very simple measures will substantially improve mild to moderate cases. Severe cases are uncontrollable without growing a beard. Individual motivation is VERY important.
 - No shaving for 2-3 weeks in order to give the skin a rest
 - Attempt to untrap ingrown hairs with a small needle or a sharp toothpick
 - Upon resumption of shaving, remove facial hair less frequently (every other day)
 - Minimize irritation of shaving Shave during a hot soaking shower after letting the beard soak well. Use a well lubricated shaving gel with minimal fragrance (e.g. Edge unscented). Shave with an adjustable razor set to cut the beard hairs as long as possible. Shave "with the grain" of the hair pattern
- If unable to tolerate gentle shaving methods above, leave a less pointed hair which will not ingrow as readily back into the skin (chemical depilatories such as Magic shave, etc.)
- The closer the shave, the worse the problem becomes. Razors such as the Trak II are inappropriate for the patient with PFB!
- ? An additional short discussion of PFB is presented at the end of this section.

Seborrheic Dermatitis

- Diagnosis - Centrofacial erythema with fine **greasy scale** accentuated between eyebrows, nasolabial folds, lateral edges of the moustache area, behind ears, eyelids. Coexists occasionally with acne rosacea. It is frequently confused with systemic lupus erythematosus (SLE). Seborrheic dermatitis is worse in winter, better in summer.
- Treatment - Avoid use of irritating soaps on the face. Apply very weak topical steroid creams (e.g. 1% hydrocortisone) b.i.d. till clear, then q.d. or q.o.d. as maintenance.

Psoriasis

- Diagnosis - Thick violaceous plaques with silvery scale accentuated over the extensor surfaces: elbows, knees, ankles, knuckles, scalp. Guttate (droplike) psoriasis frequently has rapid onset over truncal skin after viral illnesses or strep throat. Lesions can itch! Worse in winter, better in the summer.
- Treatment - Effective treatment rests in a triad: lubrication, decrease in skin trauma if possible, and topical meds including topical steroids. Of these three, effective lubrication is the most important. Emollients such as Eucerin, Aquaphor, Vaseline and other BLAND emollients will do. Thin lotions will not do! Lubricants must be applied at least twice a day to be effective. Non facial lesions will respond to medium strength topical steroids such as Kenalog 0.1%. Medicated shampoos are all effective but required

DERMATOLOGY

sufficient contact time with the scalp before rinse (4-5 min). Remember to protect the affected skin such as the hands from trauma if feasible by using gloves. Ultraviolet light (as in sunbathing) is of great help in the guttate type of psoriasis.

Sunburn

- Treatment - Protection is the way to go. This is why God created sunscreens! Use SPF 15 or greater. Remember to reapply frequently. There is no such thing as a healthy tan. A tan is the skin's response to ultraviolet injury!
- If severe sunburn is noted within 12-24 hours, a brief course of systemic steroids will attenuate it!
- Severe first degree sunburn is painful, use analgesics and cool soaking oatmeal baths.
- Do not use any topical benzocaine products!
- Severe sunburn will cause systemic toxicity. Anticipate and treat accordingly. Refer to an MTF if appropriate.
- ? **Don't forget**, sunburns (or rashes) can interfere with the bodies ability to sweat and therefore, regulate heat.

Frostbite

- Rapid rewarming in warm water (104°F) for 15-30 minutes.
- Do not rewarm until definitive care is available.
- No smoking
- High calorie, high protein diet
- Pain control (narcotics if necessary)
- Tetanus booster
- Daily whirlpool with betadine
- Stockinette, cotton balls to toes etc.
- Elevate affected extremity
- Beware of aggressive debridement. Allow areas of potential necrosis to definitively declare themselves before debridement and other surgical interventions.

PSEUDOFOLLICULITIS BARBAE (PFB)

PFB is a bothersome skin condition involving the bearded portion of the face. Affected men develop bumps and boils from where their whiskers curve and penetrate back into the skin. The problem has a simple solution - allow your beard to grow out. But for those with PFB who either desire to be clean shaven or need to be, PFB can be a difficult problem. BUT, it is not an impossible one.

- Don't shave - this will help all cases, whether just not shaving for long enough to allow the skin to improve, or until starting another method OR discontinuing shaving for good. As mentioned above, this is not an option for everyone.

DERMATOLOGY

- Control of MILD to MODERATE cases of PFB
- Avoid close shave
 - Shave WITH the grain of hair growth
 - Do NOT stretch the skin when shaving
 - Shave as infrequently as possible
 - Use a PFB razor, or low setting adjustable
 - So NOT use a double-edge razor
- Minimize irritation
 - Dislodge ingrowing hairs with
 - Toothpick or straight pin
 - Towel
 - Brush (ex, old, soft toothbrush)
 - Soften your beard with water before shaving
 - Consider topical corticosteroid as aftershave
- Topical vitamin A acid - RetinA used daily with above

Control of MODERATE to SEVERE cases of PFB

- A blunt-ended whisker will not penetrate the skin as it grows - the following chemical depilatory can help.
 - Barium sulfide powder (Magic Shave)
 - Mix
 - Apply to one-half of beard
 - 3 minutes then scrape off whiskers
 - Apply washcloth soaked in 1 part water and 1 part vinegar to area.
 - Consider topical corticosteroid if burns (repeat process every 2-5 days, with no razor, and remember to try 6 weeks before giving up)
 - Calcium thioglycolate - apply similar to above
- SEVERE cases of PFB
 - Beard removal by electrolysis - only if beard growth is very sparse.

Suggested Basic Texts in Dermatology

- Manual of Dermatologic Therapeutics - Kenneth Arndt Little, Brown and Co.
- Clinical Dermatology - Habif C.V. Mosby and Co.
- Atlas of Clinical Dermatology - Thomas Fitzpatrick McGraw-Hill Co.

DIFFERENTIAL DIAGNOSIS AND TREATMENT OF GENITAL ULCERATIONS

	Chancroid	Granuloma Inguinale	Lymphogranuloma Venereum (LGV)	Primary Syphilis	Herpes Simplex
Etiology	<i>Haemophilis ducreyi</i>	<i>Calymmatobacterium (Donovania) granulomatis</i>	<i>Chlamydia</i>	<i>Treponema Pallidum</i>	<i>Herpesvirus hominus</i>
Incubation period	12 hrs - 3 days	3-6 wks	3 days - several wks	3 wks	3-10 days
Initial lesion	Single or multiple, round to oval, tender deep ulcers with irregular outlines, ragged and undermined borders and a purulent base	Soft, non-tender papule(s) that forms irregular ulcer with beefy-red, friable base and raised, "rolled" borders	Evanescient ulcer (rarely seen)	Non-tender, eroded papule with clean base and raised, firm, indurated borders; multiple lesions occasionally seen	Primary lesions are multiple, edematous, painful erosions with yellow-white membranous coating; recurrences may have grouped vesicles on an erythematous base
Duration	Undetermined (months)	Undetermined (years)	2-6 days	3-6 weeks	Primary 2-6 wks; recurrent 7-10 days
Site	Genital or perianal	Genital, perianal, or inguinal	Genital, perianal, or rectal	Genital, perianal, or rectal	Genital, or perianal
Regional adenopathy	Unilateral or bilateral tender, matted, fixed, adenopathy that may become soft and fluctuant	Subcutaneous peri-lymphatic granulomatous lesions that produce inguinal swellings and that are not lymphadenitis (pseudobubos)	Unilateral or bilateral firm, painful inguinal adenopathy with over-lying "dusky skin"; may be fluctuant and develop "grooves in the groin"	Unilateral or bilateral firm, movable, nonsuppurative, painless, inguinal adenopathy	Bilateral, tender inguinal adenopathy, usually present with primary vulvovaginitis and may be present with recurrent genital lesions
Diagnostic tests	Smear, culture in blood, and/or biopsy of lesion; smear from aspirated unruptured lymph node	Biopsy; touch preparation from biopsy stained with Giemsa	LGV complement fixation test	Dark field examination, VDRL, FTA-ABS	Smear stained with Giemsa; culture
Treatment of choice	Sulfisoxazole 4gm initially, then 1gm qid x 2 wks	Tetracycline 500mg qid x 3 wks	Tetracycline 500mg qid x 3 wks	Benzathine penicillin G 2.4 million U IM	Symptomatic
Alternate drug	Tetracycline 500mg qid x 2 wks Ceftriaxone 250mg IM Erythromycin 500mg qid x 7 days	Streptomycin 3gm qid x 3 wks Tetracycline and sulfisoxazole - may be given simultaneously	Sulfisoxazole 4gm initially, then 1gm qid x 3 wks Erythromycin 500mg qid x 2 wks	Tetracycline 500mg qid x 3 wks	