** CHECK THE BOOK FOR PICS

	clinical presentation	organism/ cause	site	management	notes
infected eczema	Background inflammatory atopic dermatitis with excoriations and marked crusting and exudate	S. aureus S. pyogenes	-	*Antiseptic wash *Topical antibiotic/steroid combination cream. Treat eczema thoroughly to restore the barrier function. *Oral flucloxacillin/ erythromycin may be needed	-
impetigo	Clusters of pustules and vesicles which break down into the classic golden crusts	S. aureus S. pyogenes	face and limbs	*Antiseptic wash *Topical antibiotic *Oral flucloxacillin or erythromycin	*Streptococcus is more likely to be the causative organism if there is associated regional lymphadenopathy *Secondary impetigo may co-exist with any pre-existing skin lesion.
bulbous	Erythema	S. aureus	Face, limbs	Oral	-

impetigo	with bullae which rupture leaving superficial erosions and crusts	with exfoliative toxins A/B (The localized form of staphylococcal scalded skin syndrome)	and flexures affected	flucloxacillin or erythromycin	
boils (abscess)	Tender, inflamed indurated nodules with central pus, may be single or multiple	S. aureus Consider Panton Valentine Leukocidin Toxin-producing S. aureus	-	*Antiseptic wash *Oral flucloxacillin or erythromycin If *PVL-positive, give nasal bactroban and consider giving clindamycin plus rifampicin for four to six weeks	If recurrent and recalcitrant, consider toxin-producing bacteria
Bacterial folliculitis	A pustule and erythema around the follicular orifice which may be associated with mild irritation	S. aureus Pseudomonas aeruginosa (differential diagnosis Malassezia spp)	Hair-bearing sites, particularly legs, beard area, and scalp.	*Topical antibiotics *Acetic acid cream *EarCalm® for Pseudomonas aeruginosa *Oral flucloxacillin or erythromycin *Avoid shaving if possible	*In recurrent infections look for S. aureus nasal carriage *Hot-tub folliculitis caused by Pseudomonas aeruginosa appears within two days of exposure

					to contaminated water or water accessories *Deeper follicular infections are characterised by abscess formation, boils, and furunculosis. When several furuncles coalesce they form a carbuncle.
Pseudofolliculitis	A pustule and erythema around the follicular orifice which may be associated with mild irritation. However, lesions are all at the same stage of development and are clinically very monomorp	occlusion of the follicular openings by heavy emollients	Hair-bearing sites, particularly legs, beard area, and scalp.	*Topical steroids or topical antibiotics *Warm compresses & manual retraction of ingrown hair	*Pseudofolliculitis barbae ('razor bumps') in the beard area has a similar clinical appearance but is in fact a perifollicular itis (Coarse curly hair punctures the

	hic, and the pustules are sterile.				skin adjacent to the hair follicle (from which it has arisen), resulting in a foreign body reaction with inflammation which can become chronic and lead to scarring / KRT75 gene defect (synthesis of type II keratin) / young black men affecting their face & neck) *In the occipital area of the scalp / beard acne keloidalis nuchae results from folliculitis and perifollic

					ulitis with resultant alopecia and keloid scarring from chronic inflammation. Caused by trauma from hair removal practices and chronic inflammation in a predisposed individual.
Erythrasma	superficial scaling and mild inflammation, often with a reddish-brown discolouration	Corynebacterium minutissimum	flexural skin sites	First-line treatment is usually oral erythromycin	*Under Wood's ultraviolet light the affected skin (bacteria) fluoresces pink
Erysipelas	red, shiny, raised, spreading plaque with a well-demarcated edge (The Streptococcus organisms invade the dermis and penetrate	S. pyogenes (group A Strep. but also B, C, G) S. aureus (less common)	The face (S. pyogenes from throat colonisation) and lower legs are most frequently affected	Intravenous benzyl penicillin or erythromycin	*Recurrent attacks may require long-term secondary prophylaxis (penicillin / macrolid

	the lymphatics, which clinically is well demarcated)				es)
Cellulitis	red, shiny, raised, spreading plaque with a poorly defined margin and marked regional lymphadenopathy	S. pyogenes (also groups C/G β-haemolytic Streptococcus, or rarely S. aureus) **invade deeper tissues than those found in erysipelas	The lower leg is the most common site affected	Intravenous benzyl penicillin	*Cellulitis develops more slowly than erysipelas
Necrotising fasciitis	dusky purplish erythema associated with extensive life-threatening necrosis of the deeper tissue. The patient deals with severe pain initially at the site followed by anaesthesia.	mixed (anaerobic and aerobic bacteria) infection of the deep fascia	the site of a recent trauma or surgery	surgical debridement and broad-spectrum antibiotics	-
Ecthyma	Initially small bullae with necrotic dry	group β-haemolytic Streptococci (S. pyogenes)	occur on the lower legs of children and elderly /	*Antiseptic wash *Oral penicillin V or erythromycin	*deeper form of impetigo *heal slowly with

	adherent crust and underlying ulceration	invade the dermis leading to superficial ulcers	debilitated people		scarring
Staphylococcus scalded skin syndrome (SSSS)	Generalised cutaneous erythema is followed by widespread superficial blistering (Nikolsky sign positive)	S. aureus that produce exfoliative toxins A/B resulting in intraepidermal splitting (the target is desmoglein 1)	may be most striking in the flexures	Give systemic antibiotics to treat Staphylococcus	-
Bacillary angiomatosis	multiple small cherry-like haemangiomas in HIV patients	Bartonella henselae and Bartonella quintana	-	erythromycin or azithromycin	*Serology rather than culture is usually used to confirm the diagnosis
Cat-scratch disease	Crusted nodules appear within 3–12 days at the site of a scratch associated with the development of regional painful lymphadenopathy one or two months later	B. henselae	-	The disease usually undergoes spontaneous remission within two to four months. Azithromycin can speed up recovery.	-
Rocky mountain	petechial rash which	Rickettsial organisms	mentioned earlier	adults doxycycline	-

spotted fever	characteristically appears on the palms and soles but may spread to the trunk. There may be a necrotic lesion (tache noire) at the site of the tick bite	(slow growing small gram-negative bacteria) >> dog tick		Children azithromycin	
Syphilis	Primary syphilis manifests as a painless genital ulcer at the site of inoculation secondary syphilis are characterised by a widespread eruption of red-brown scaly patches and macules that affects the trunk and limbs (particularly palms and soles) In patients with HIV the rash may be	Treponema pallidum	mentioned earlier	A single injection of benzathine penicillin G	-

	florid with marked crusting.				

** GENERAL NOTES:

1. Normal skin flora consists of coagulase-negative Staphylococcus, Corynebacterium, diphtheroids and α-haemolytic Streptococci in the epidermis, and Propionibacterium in the pilosebaceous unit.
2. Synergistic microbial invasion is frequently presentin cutaneous wounds
3. Many cutaneous infections start as an isolated lesion that then spreads to involve the surrounding previously uninvolved skin.
4. When taking swabs to diagnose superficial skin infections they should be moistened in the transport media before contact with the skin and each surface of the swab should be rotated on the infected skin surface.
5. Nasal swabs may identify Staphylococcus aureus carriers who can suffer from recurrent infections because of bacterial shedding from the nose.
6. PVL-positive S.aureus is highly virulent and highly transmissible. Patients with PVL-positive S. aureus often present with multiple/recurrent boils not settling with short courses of flucloxacillin.
7. If you suspect mycobacterial infections, take a skin biopsy for culture and PCR.
8. General approach to management:

[[Antiseptic skin washes: chlorhexidine hydrochloride, Potassium permanganate soaks or diluted bleach (particularly on the lower legs), Betadine, iodine, or eosin >> Topical antibiotics (treat mild localized infections): Fusidic acid,neomycin, or polymyxins ((Prolonged exposure to topical antibiotics leads to the selection of resistant organisms and rarely contact dermatitis (neomycin most commonly))) >> Systemic antibiotics are needed for more extensive cutaneous bacterial infections: Staphylococcal cover (e.g: flucloxacillin, macrolides, coamoxiclav), MRSA cover (e.g: vancomycin, daptomycin), Streptococcal cover (e.g: penicillin V, flucloxacillin, macrolides, coamoxiclav, vancomycin, levofloxacin)]]

9. Mycobacterial diseases:

A. TB in the skin usually occurs as a secondary manifestation of disease with its primary focus in the respiratory tract. The most common manifestation is lupus vulgaris, which usually presents on the head and neck. Lesions appear as slowly growing well-demarcated red-brown papules that coalesce to form indolent plaques of a gelatinous nature: the so-called 'apple-jelly nodules'.
B. Allergic-type hypersensitivity reactions called tuberculids can occur in the skin of patients with underlying TB. Tuberculids include erythema

induratum (Bazin's disease), where patients present with tender nodules and plaques that ulcerate and heal with scarring on the lower legs.

C. Mycobacterium marinum or 'fish tank' or 'swimming pool granuloma' usually occurs because of contact with infected tropical fish or contaminated water. The hand or fingers are most frequently affected; initially, a single warty nodular and occasionally pustular lesion appears with subsequent sporotricoid spread along local lymphatics, forming a chain of nodules (Figure 13.14). Patients should be treated with oral clarithromycin for several months.