



Topical Antibiotics for Skin & Wounds

Product	RX**	Indications & Comments	Application & Frequency	Bacterial Spectrum	Advantages & Disadvantages
Bacitracin Ointment 500 units/g Powder for solution (Bacitracin) Baciguent*	No	Treatment of minor skin injuries, scrapes, or burns.	Apply 1-3 times daily, as per order for 7 days only. Reassess ongoing.	Gram-positive: Aerobic staphylococci, streptococci, corynebacteria, anaerobic cocci, and clostridia. Gram-negative: Inactive against most gram-negative organisms.	Advantages: Easy to apply. Activity not impaired by blood, pus, necrotic tissue, or large bacterial inocula. Resistance is rare yet increasing among staphylococci. No cross-resistance with other antibiotics. Minimal absorption. Disadvantages: Allergic reactions, contact dermatitis, and rarely anaphylactic reactions. May lead to over-growth of drug resistant organisms, including fungi.
Fusidic Acid (Fucidin*) Cream 2% Ointment 2%	No	Treatment of bacterial skin infections. (e.g., impetigo contagiosa, erythrasma) & secondary (e.g., infected wounds, infected burns)	Apply 2-3 times daily, as per order for 7 to 14 days. Reassess ongoing.	Gram-positive: Staphylococcus aureus, streptococci spp., Corynebacteria minutissimum, and clostridia Gram-negative: NA	Advantages: Easy to apply. Penetrates intact and damaged skin as well as crust and cellular debris. If gauze dressing is used, application may be reduced to 1 to 2 x daily. Disadvantages: Hypersensitivity reaction: rash/ irritation. Resistance among staphylococci is emerging. Systemic absorption following topical application is minimal. It is not known if Fucidin is present in breast milk following topical application. Fusidic acid crosses the placenta and following systemic administration.
Mupirocin (Bactroban*)	No	Treatment of impetigo. Prevention of secondary/ minor skin infections (MRSA)	Apply 3 times daily for 10 days. Reassess after 3-5 days if no clinical response.	Gram-positive: MRSA Gram-negative: NA	Advantages: Easy to apply. Penetrates easily. Disadvantages: Hypersensitivity reaction: rash/ irritation. Superinfections (fungal and bacterial) may occur with prolonged use including <i>C. difficile</i> associated diarrhea and pseudomembranous colitis.
Polysporin or Polytopic 500 units/g (Polymyxin B & Bacitracin) Ointment	No	Prevention or treatment of infection in minor cuts, scrapes, or burns.	Apply 1-3 times daily, as per order for 7 day. Reassess ongoing.	Gram-positive: Staphylococci (some penicillin-resistant staphylococci), streptococci, anaerobic cocci, corynebacteria, and clostridia. <i>In vitro</i> , bacitracin concentrations of 0.05–5.0 mcg/mL inhibit most susceptible strains of <i>Staphylococcus aureus</i> . Gram-negative: Gonococci, meningococci, and fusobacteria. Bacitracin is also active against <i>Actinomyces israelii</i> , <i>Treponema pallidum</i> , and <i>T. vincenti</i> .	Advantages: Easy to apply. The activity is not impaired by blood, pus, necrotic tissue, or large inocula. Easy to apply; may be covered with a sterile gauze. Disadvantages: Hypersensitivity reaction: rash/ irritation. Do not use near eyes.
Polysporin Triple (Polymyxin B, Bacitracin, & Garamicidin)	No	Prevention of infection in minor cuts, scrapes, or burns.	Apply 1-3 times daily as per order for 7 to 14 days. Reassess ongoing.	Gram-positive: Staphylococcus aureus Gram-negative: NA	Advantages: Easy to apply; may be covered with a sterile gauze. Disadvantages: Hypersensitivity reaction: rash/ irritation. Do not use near eyes.

*Brand Name

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Topical Fungal Products for Skin & Nails

Product *Brand Name	RX	Indications & Comments	Application & Frequency	Microbial Spectrum	Advantages & Disadvantages
Ciclopirox Loprox*	No	Treatment of tinea pedis, tinea corporis, tinea cruris, cutaneous candidiasis & tinea versicolor. Onychomycosis (nails). Seborrheic dermatitis (scalp)	Apply as per order. Reassess ongoing	Antifungal	Advantages: Easy to apply. Disadvantages: Hypersensitivity to ciclopirox or any component of the formulation. Use with caution in immunocompromised patients. Contains benzyl alcohol and derivatives leading to skin irritation. Do not use near eyes.
Clioquinol 3% (w hydrocortisone 1%)	Yes	The hydrocortisone is a mild glucocorticoid with an anti-inflammatory, anti-allergic and vasoconstrictive effect.	Apply as per order for 7 days. Reassess ongoing.	Antifungal: Candida, Microsporium, Trichophyton Gram-positive: Staphylococci Gram-negative: Exerts a slight inhibitory effect.	Advantages: Easy to apply. In inflammatory skin diseases of widely varying type and origin it affords prompt relief, eliminates symptoms such as pruritus (itchiness). Disadvantages: Do not use with viral skin infections: chicken pox, skin eruptions following vaccination, herpes simplex, herpes zoster, TB of the skin, syphilitic skin infections. Do not use on diaper rash or on children <2 years. Do not apply to ulcerated areas. Do not use near eyes. Do not use with sensitivity to hydrocortisone.
Clotrimazole (1% cream)	No	Treatment of fungal skin infections: jock itch, athlete's foot, ringworm, and candidiasis. Tinea versicolor-(pityriasis).	Apply as per order 2 times a day; may be needed for 2-4 wks. Reassess ongoing.	Antifungal: Broad-spectrum antimycotic/anti-fungal agent.	Advantages: Easy to apply. Disadvantages: Allergic reactions. Sensitivity to product. Overuse may lead to overgrowth of fungal infections. Hypersensitivity to product after application. Do not use near eyes.
Ketoconazole Ketoderm cream 2% Nizoral Shampoo 1% or 2%	Yes	Treatment of tinea pedis, tinea cruris, tinea corporis, tinea versicolor (pityriasis); seborrheic dermatitis; and cutaneous candidiasis.	Apply 1-2 times daily as per order; may be needed for 2-6 wks. Reassess ongoing.	Antifungal: Kills fungus and yeast	Advantages: Generally, well tolerated by the skin. Disadvantages: Hypersensitivity irritation, pruritus and stinging. Cross sensitivity with miconazole and other imidazoles may exist and caution is suggested when Ketoderm cream 2% is use with known sensitivity to imidazoles.
Lotiderm* Clotrimazole & Betamethasone	No	Treatment of tinea corporis, tinea cruris, tinea pedis,	Apply twice daily as per order; may be needed for 2 to 4 wks. Reassess ongoing.	Antifungal: With a topical cortico-steroid.	Advantages: Easy to apply. Disadvantages: Hypersensitivity irritation, skin tingling and burning. Other side effects include: high blood sugar, Cushing syndrome, adrenal gland problems, skin changes (acne, slow healing), discoloration, thinning. Vision changes.
Terbinafine Lamisil 1% cream	Yes	Treatment of fungal infections of the nails (toes, fingers), hair, and skin. When use in skin folds cover with a dry gauze strip.	Apply 1-2 times daily as per order; 1 to 2 wks. Reassess ongoing.	Antifungal	Advantages: Easy to apply Treatment length depends on healing and reduction of symptoms. Disadvantages: Hypersensitivity burning, rash. Cream contains benzyl, cetyl, stearyl alcohol which may cause local skin reactions such as contact dermatitis. Spray contains propylene glycol & ethanol - may cause skin irritation.
Tolnaftate Pitrex, Flexitol cream 1% Tinactin powder 1%	No	Treatment of fungal infections athlete's foot, jock itch, ring worm.	Apply 2 times daily as per order; may be needed for 2 to 4 wks. Reassess ongoing.	Anti-fungal Synthetic agent.	Advantages: Easy to apply. Disadvantages: Hypersensitivity to product after application. Do not use near eyes. Do not use for infections of the nails. Do not use in children < 2 years old.
Nystatin Nyaderm Cream Nyaderm Ointment Nyaderm powder for compounding 100,000 units/g	No	Antifungal antibiotic. Treatment of fungal and yeast infections caused by Candida albicans and other susceptible Candida species.	Apply 1 to 2 times daily as per order. Reassess ongoing.	Antifungal Candida spp Aspergillus & other fungi.	Advantages: Easy to apply. Non-toxic, non-sensitizing, and well tolerated. Disadvantages: Sensitivity to non-medicinal ingredients: emulsifying wax, glycerin, isopropyl myristate, purified water, & sorbic acid. Do not use powder intra-vaginally or near eyes.
Viaderm K.C. (Triamcinolone, Neomycin, Gramicidin, & Nystatin)	Yes	Antifungal, antibiotic, and corticosteroid. Treatment of skin irritation, rashes, and infections.	Apply 2-3 times daily, as per order, reassess ongoing.	Anticandidal activity (nystatin) Broad-spectrum anti-bacterial activity (neomycin, gramicidin)	Advantages: Easy to apply. Disadvantages: Do not use on burns or wounds. Do not cover treated area(s) with occlusive dressing. Avoid contact with the eyes. Side effects include a burning sensation, itching and dry skin.

*Brand Name

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Reference/Resource List

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Document Creation/Review

This guideline is based on the best evidence-based information available at the time it was published and avoids opinion-based statements, where possible. It was developed by the Provincial Nursing Skin & Wound Committee.

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