

Antibacterial Topical Agents	
Bacitracin	<ul style="list-style-type: none"> <li>• Frequently used in combination with either neomycin or polymyxin B</li> <li>• Form: creams, ointments, aerosol preparations</li> <li>• Usually antiinflammatory agents added like hydrocortisone</li> </ul>
Gramicidin	Gram-positive bacteria
Polymyxin B Neomycin Gentamicin	Gram-negative bacteria

Acne: Antibacterial Topical Agents	
Clindamycin	<ul style="list-style-type: none"> <li>• 10% absorbed → pseudomembranous colitis</li> <li>• hydroalcoholic vehicle and foam formulation (Evoclin → drying, irritation of skin, burning, stinging)</li> <li>• water-based gel and lotion, tolerated: less likely irritation. Allergic contact dermatitis uncommon</li> <li>• fixed-combination topical gels with benzoyl peroxide (benzaClin, duac, acanya)</li> <li>• with tretinoin: Ziana</li> </ul>
Erythromycin	<ul style="list-style-type: none"> <li>• topical preparations with erythromycin base not salt for penetration</li> <li>• complications: development of antibiotic-resistant strains, including staph</li> <li>• local reactions: burning sensation at application, drying, irritation</li> <li>• fixed-combination with benzoyl peroxide: benzamycin for acne vulgaris</li> </ul>
Metronidazole	<ul style="list-style-type: none"> <li>• for rosacea</li> <li>• UK MAO: may be inhibitory effects on demodex brevis</li> <li>• May act as anti-inflammatory by direct effect on neutrophil cellular function</li> <li>• Adverse local effects of water-based gel: METroGel: dryness, burning,</li> </ul>

	stinging <ul style="list-style-type: none"> <li>• Less drying: MetroCream, Metrollotion, Noritate cream</li> <li>• Caution around eyes → excessive tearing</li> </ul>
Sodium Sulfacetamide	

Topical Antifungal Agents - Azole Derivatives	
Clotrimazole Ketoconazole Miconazole Oxiconazole Econazole Sulcanazole	Against dermatophytes, yeasts, including candida albicans
Topical Antifungal Agents—Non-azoles	
Ciclopirox Olamine	Tinea versicolor
Naftifine Terbinafine	Tinea pedis, tinea cruris, tinea corporis
Tolnaftate Nystatin, amphotericin B	Only for candida albicans Topical, oral, vaginal

Oral Antifungal Agents - Azole Derivatives	
Fluconazole Itraconazole Ketoconazole	<ul style="list-style-type: none"> <li>• Affects permeability of fungal cell membrane through alteration of sterol synthesis</li> <li>• Effective in systemic mycosis; mucocutaneous candidiasis, cutaneous infections</li> <li>• Systemic side effects: hepatitis, liver enzyme elevations, drug interactions</li> </ul>
Griseofulvin	<ul style="list-style-type: none"> <li>• Against epidermophyton, microsporum, trichophyton</li> <li>• Long treatment:               <ul style="list-style-type: none"> <li>○ Scalp: 4-6 weeks</li> <li>○ Fingernails: 6 months</li> <li>○ Toenails: 8-18 months</li> <li>○ Many SE</li> </ul> </li> </ul>
Terbinafine	<ul style="list-style-type: none"> <li>• For onychomycosis (ringworm of nail)</li> <li>• Fingernails: 6 weeks</li> <li>• Toenails: 12 weeks</li> </ul>

Topical Antiviral Agents -- **clovir	
Acyclovir Valacyclovir	<ul style="list-style-type: none"> <li>• Synthetic guanine analogs</li> <li>• Inhibitory activity against herpes</li> </ul>

Famciclovir Penciclovir	<ul style="list-style-type: none"> <li>Ointments, creams: recurrent orolabial herpes simplex</li> </ul>
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Immunomodulators	
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Imiquimod	<ul style="list-style-type: none"> <li>External genital, perianal warts</li> <li>Actinic keratosis on face, scalp</li> <li>Primary basal cell carcinoma</li> <li>Stimulates peripheral mononuclear cells to release interferon-alpha → macrophages → release IL-1, 6, 8 and TNF-alpha</li> </ul>
Tacrolimus Pimecrolimus	<ul style="list-style-type: none"> <li>Atopic dermatitis</li> <li>Inhibits t-lymphocyte activation, prevents release of inflammatory cytokines, mast cell mediators</li> </ul>

Ectoparasiticides	
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Permethrin	<ul style="list-style-type: none"> <li>against pediculus humanus, pthirus pubis, sarcoptes</li> <li>pediculosis: cream for 10 minutes, then rinsed off with warm water</li> <li>scabies: cream applied to whole body for 8-14 hours</li> </ul>
Lindae—Hexachlorocyclohexane	<ul style="list-style-type: none"> <li>10% absorbed</li> <li>concentrated in fatty tissues</li> <li>neurotoxicity, hematoxicity</li> </ul>
Crotamiton	<ul style="list-style-type: none"> <li>drug used in both scabidical and as a general antipruritic</li> </ul>
Sulfur	
Malathion	

Agents Affecting Pigmentation	
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Hydroquinone	<ul style="list-style-type: none"> <li>topical application, skin whitening to reduce color of skin</li> </ul>
Monobenzone	<ul style="list-style-type: none"> <li>toxin to melanocytes → permanent depigmentation</li> </ul>
Mequinol	<ul style="list-style-type: none"> <li>topical hydroquinone and mequinol usually result in temporary lightening</li> <li>reduce hyperpigmentation of skin by inhibiting enzyme tyrosinase which will interfere with biosynthesis of melanin</li> </ul>

Tioxsalen Methoxsalen	<ul style="list-style-type: none"> <li>• psoralens used for repigmentation of depigmented macules of vitiligo</li> <li>• must be photoactivated by long-wave-length ultraviolet light (320-400 nm) to produce effect</li> <li>• intercalate with DNA</li> <li>• can cause cataract, skin cancer</li> </ul>
Sunscreens, Sunshades	
Sunscreens	<ul style="list-style-type: none"> <li>• absorbed UV light</li> <li>• para-amino benzoic acid and its esters (PABA)</li> </ul>
Sunshades	<ul style="list-style-type: none"> <li>• opaque materials that reflect light, like titanium dioxide</li> <li>• useful in polymorphous light eruption lupus, erthematosus, drug-induced photosensitivity</li> </ul>

Acne Preparations	
Retinoic Acid [tretinoin] and Derivatives: <ol style="list-style-type: none"> <li>1. retinoic acid</li> <li>2. adapalene</li> <li>3. tazarotene</li> </ol>	<ul style="list-style-type: none"> <li>• acid form of vitamin A</li> <li>• stabilized lysosomes, increases RNA polymerase activity, pGE2, cAMP, cGMP, incorporation of thymidine into DNA</li> <li>• decreases cohesion between epidermal cell</li> <li>• increases epidermal cell turnover → expulsion of open comedones and transformation of closed comedones into open ones</li> <li>• promotes dermal collagen synthesis, new blood vessel formation, thickening of epidermis → diminishes fine lines and wrinkles</li> <li>• can cause erythema, dryness</li> <li>• tymerogenic in animals</li> </ul>
Isotretinoin (Accutane)	<ul style="list-style-type: none"> <li>• restricted for severe cystic acne resistant to standard treatment</li> <li>• inhibits sebaceous gland size, function</li> <li>• given orally: 2 divided doses for 4-5 months. Dose based on weight: 1-2 mg/kg</li> </ul>

	<ul style="list-style-type: none"> <li>• toxic: dryness, itching, headache, corneal opacities, pseudotumor cerebri, IBS, anorexia, alopecia, muscle joint pains, lipid abnormalities</li> <li>• teratogenicity</li> </ul>
Benzoyl Peroxide	<ul style="list-style-type: none"> <li>• penetrates stratum corneum, follicular openings → converted to benzoid acid within epidermis and dermis</li> <li>• has antimicrobial activity against P. acnes and peeling and comedolytic effects</li> <li>• combined with erythromycin, or clindamycin</li> <li>• cause bleaching of hair or colored fabrics</li> </ul>
Azelaic Acid	<ul style="list-style-type: none"> <li>• antimicrobial activity</li> </ul>

Drugs for Psoriasis	
Acitretin	<ul style="list-style-type: none"> <li>• Related to isotretinoin</li> <li>• Given orally</li> <li>• Hepatotoxic, teratogenic</li> <li>• Not become pregnant for 3 years after stopping treatment, shouldn't donate blood</li> </ul>
Tazarotene	<ul style="list-style-type: none"> <li>• Topical</li> <li>• Anti-inflammatory, anti-proliferative</li> <li>• Teratogenic</li> <li>• Can cause burning, stinging, peeling, erythema, localized edema of skin</li> </ul>
Calcipotriene	<ul style="list-style-type: none"> <li>• Synthetic vitamin D3 derivative</li> </ul>
Biological Agents for Psoriasis	
Alefacept	<ul style="list-style-type: none"> <li>• Immunosuppressive dimer fusion protein of CD2 linked to Fc portion of human IgG1</li> </ul>
Efalizumab	<ul style="list-style-type: none"> <li>• Recombinant humanized IgG1 monoclonal AB</li> <li>• Withdrawn: progressive multifocal leukoencephalopathy PML</li> </ul>

	<ul style="list-style-type: none"> <li>• Can cause thrombocytopenia</li> </ul>
Etanercept	<ul style="list-style-type: none"> <li>• Dimeric fusion protein of TNF receptor linked to Fc portion of IgG1</li> </ul>

Anti-Inflammatory Agents	
Topical Corticosteroids <ol style="list-style-type: none"> <li>1. Hydrocortisone</li> <li>2. Prednisolone</li> <li>3. Methylprednisolone</li> <li>4. Dexa and betamethasone</li> <li>5. Triamcinolone</li> <li>6. Fluocinonide</li> </ol>	<ul style="list-style-type: none"> <li>• Responsive to:               <ol style="list-style-type: none"> <li>1. Atopic dermatitis</li> <li>2. Seborrheic dermatitis</li> <li>3. Lichen simplex chronicus</li> <li>4. Pruritus ani</li> <li>5. Allergic contact dermatitis</li> <li>6. Eczematous dermatitis</li> <li>7. Psoriasis</li> </ol> </li> <li>• Adverse Effects               <ul style="list-style-type: none"> <li>○ Suppression of pituitary-adrenal axis</li> <li>○ Systemic effects</li> <li>○ Skin atrophy</li> <li>○ Erythema</li> <li>○ Pustules</li> <li>○ Acne</li> <li>○ Infections</li> <li>○ Hypopigmentation</li> <li>○ Allergic contact dermatitis</li> </ul> </li> </ul>
Tar Compounds	<ul style="list-style-type: none"> <li>• Mainly for psoriasis, dermatitis, lichen simplex chronicus</li> <li>• Can cause irritant folliculitis, phototoxicity, allergic contact dermatitis</li> </ul>

Keratolytic and Destructive Agents	
Salicylic Agents	<ul style="list-style-type: none"> <li>• Solubilizes cell surface proteins resulting in desquamation of keratotic debris</li> <li>• Keratolytic in 3-6% concentration, destructive in higher</li> <li>• Locally: urticarial, anaphylactic and erythema multiform reactions, irritation, inflammation, ulceration</li> </ul>
Propylene Glycole	<ul style="list-style-type: none"> <li>• Usually used as a vehicle for organic compounds</li> </ul>

	<ul style="list-style-type: none"> <li>• Used alone as a keratolytic agent in concentrations of 40-70% with plastic occlusion,</li> <li>• Also in form of gel with 6% salicylic acid</li> <li>• Minimally absorbed</li> <li>• Oxidized in liver to lactic acid and pyruvic acid</li> <li>• Develops an osmotic gradient through the stratum corneum → increasing hydration of outer layers of skin</li> </ul>
Urea	<ul style="list-style-type: none"> <li>• Has a humectant activity: softening, moisturizing effect on skin</li> <li>• Increase water content as a result of its hygroscopic characteristic</li> <li>• Decreases unpleasant oily feel of dermatologic preparations</li> <li>• When absorbed → excreted in urine</li> </ul>
Flurouracil	<ul style="list-style-type: none"> <li>• Antimetabolite that resembles uracil and inhibits thymidylate synthetase → interferes with DNA RNA synthesis</li> <li>• Used in actinic keratosis (multiple)</li> </ul>
Nonsteroidal Anti-Inflammatory Drugs	<ul style="list-style-type: none"> <li>• 3% gel formulation diclofenac</li> </ul>
Aminolevulinic Acid	<ul style="list-style-type: none"> <li>• used in actinic keratosis</li> <li>• after topical application (20%) and exposure to light → cytotoxic superoxide and hydroxyl radicals</li> </ul>

Antipruritic Agents	
Doxepine	<ul style="list-style-type: none"> <li>• potent H1 and H2 receptor antagonist</li> <li>• can cause drowsiness and anticholinergic effects</li> </ul>
Pramoxine	<ul style="list-style-type: none"> <li>• topical local anesthetic</li> </ul>

Trichogenic and Antitrichogenic Agents	
Minoxidil (Rogaine)	<ul style="list-style-type: none"> <li>designed as antihypertensive agent</li> <li>effective in reversing progressive miniaturization of terminal scalp hairs associated with androgenic alopecia</li> <li>vertex balding is more responsive than frontal</li> </ul>
Finasteride (propecia)	<ul style="list-style-type: none"> <li>5-alpha-reductase inhibitor which blocks conversion of testosterone to dihydrotestosterone</li> <li>oral tablets</li> <li>can cause decrease libido, ejaculation disorders, erectile dysfunction</li> </ul>
Eflornithine	<ul style="list-style-type: none"> <li>irreversible inhibitor of ornithine decarboxylase → inhibits polyamine synthesis which are important in cell division and hair growth</li> <li>effective in reducing facial hair growth in 30% of month after 6 month use</li> </ul>

### NON-STEROIDAL ANTI-INFLAMMATORY DRUGS

They are analgesic, antipyretic, anticoagulant, anti-inflammatory at high doses

Analgesics		
	Narcotics (Opioids)	Nonnarcotic (non-opioid)
Efficacy	Strong	Weak
Prototype	Morphine	Aspirin
Pain relieved	Any type	MSS
Site of Action	Central	Peripheral and Central
Mechanism	Specific receptors	PG Synthesis
Danger	Tolerance & dependence	GI Irritation
Anti-Inflammatory	No	Yes
Antipyretic	No	Yes
Antiplatelets	No	Yes



Salam ,

Here are some notes the Dr said in the last lab about enha mohmeh kteer i wana share it with you

1- "عارفها مش انتا و علامتحان تيجيش"

Tom has and Tom Does / perenious tert. groove /perenious brevis groov/the foramens of the skull

2- Tibialis posterior groove and Tibial tuborosity

3-related to the neck of fibula(which nerve) and styloid process of fibula

4- pop. fossa (deepest struct)

5-you must be able to distinguish the art. from the V. in the femoral triangle

(only contents)

6- distinguish between vertebrae(very important)

7- distinguish between external carotid and internal carotid( do not relay on the tract of the art. , the one that gives branches is the external)

8- distinguish between semimembrenosis and semitendenosis and check the Nerve supply for each(very important)

9- biceps long and short head are very important too , I expect you to know the nerve for each as well

10- muscle attached to lesser troachanter

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and he also said : about the neck i need you to know the contents of each triangle(this is for the theory) , am not intrested with the borders ( he said that ma d5lnee odrosohom lal e7tya6 xD )

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these were quotes from the Dr records and the last lab ( el moraja3a)

best of luck all ed3olna