# **Acne Treatment Summary**

# PedsCases Acne Part II

#### Basic Skin Care:

- -Wash face with gentle, soap-free, pH neutral cleanser once to twice daily
- -Avoid aggressive scrubbing and drying agents -Moisturize daily with oil free moisturizer that contains SPF 15 or higher
- -Use non-comedogenic concealer
- -Apply acne treatments to entire affected area (e.g. face, back, chest where acne lesions are present), do not "spot treat" individual acne lesions



Topical Agents	Strength/Dose	Mechanism of Action	Directions for Use	Examples	Adverse Effects
Benzoyl Peroxide	2.5-10%	Keratolytic, comedolytic, anti-inflammatory	Apply to entire affected area each night. May cause bleaching of clothing/sheets. Use for 8-10 weeks for max effect.	Benzagel, Panoxyl, Clearasil BP	Redness, peeling, dryness Improves with use Can gradually increase exposure time to minimize skin irritation Rarely allergic contact dermatitis
Topical Antibiotics	3% erythromycin/	Anti-inflammatory	Apply to entire affected area once	Benzamycin	See above (similar side effect
*only combination products with BP are listed	5% benzoyl peroxide 1% clindamycin/ 5% benzoyl peroxide	Combination with BP decreases bacterial resistance Use for inflammatory acne only	to twice daily. Use for 8-10 weeks for max effect.	Clindoxyl gel BenzaClin	profile)
Topical Retinoids *combination products with BP are available	Adapalene 0.1% Tretinoin 0.01, 0.025, 0.05, 0.1% Tazarotene 0.05, 0.1%	Decr abnormal keratinization Breaks down microcomedones Anti-inflammatory	Apply to the entire affected area once daily. Use for a minimum of 12 weeks.	Tactuo, Differin Retin-A, Stevia-A Tazorac	Acne may worsen before improvement is seen Irritation, erythema, xerosis Tazarotene is contraindicated in pregnancy (Category X)
Oral Antibiotics	Doxycycline 50 to 150 mg Minocycline 50 to 100 mg	Decrease proliferation of P. Acnes Anti-inflammatory	Take by mouth once daily Use for 8-12 weeks for max effect Take with full glass of water and avoid lying down >30 mins Sun protection Do not give if <9 years old	Doxycycline capsule Minocycline capsule	Pill esophagitis, Gl upset Photosensitivity Candida/vaginitis Benign intracranial hypertension Rare autoimmune and skin reactions (Minocycline)
Oral Contraceptive	Variable based on	Decreases androgen	Take by mouth once daily	Alesse	Risk of VTE, hepatotoxicity. Risk of
(OCP)	brand, choose product with ethinyl estradiol & synthetic progestin	levels, decreases sebum production Only for use in females	Cyclical dosing (21 days + 7 days placebo) or continuous dosing (no placebo pills). Use for 3-6 months before max effect.	Yasmin, Yaz Tri-Cyclen Diane-35	relapse after discontinuing. Progestin only contraceptives may worsen acne.
Isotretinoin	Isotretinoin 10 mg or 40 mg cap Total cumulative dose 120-150 mg/kg/course usually over 4-5 m/os (0.5-1 mg/kg/day)	Comedolytic Keratolytic Anti-inflammatory Decreases sebum production Decreases P. Acnes colonization	Take by mouth once daily Must have reliable form of contraception (abstinence or OCP + condoms for example) Test b-HCG, LFTs, CBC, lipids baseline and at 1 month	Accutane Clarus	Risk of acne flare-up during first 2 months of treatment. Dryness of mucous membranes, skin. Hair loss, thirst, myalgias, back pain, increased triglycerides/LDL, headache, decr night vision, hepatotoxicity

# **Treatment Algorithm**

# Mild Acne

Comedones +/- papules/pustules

## Initial Treatment

**Topical Retinoid** Topical benzoyl peroxide

#### **Inadequate Effect**

Add BP or retinoid to regimen if not already added Increase strength of retinoid or switch to different retinoid

## If inflammatory lesions present (papules/pustules)

Try BP + antibiotic product Use combination of BP+ antibiotic + retinoid

### Use for 8-10 weeks

# **Moderate Acne** Papules/pustules +/- comedones

## **Initial Treatment**

Topical Retinoid + BP OR Retinoid + BP + topical Abx Oral Abx + Retinoid + BP

#### **Inadequate Effect**

Change topical regimen Add or change oral antibiotic Consider OCP in females

### If inadequate response to first line agents

Consider dermatology referral Consider oral isotretinoin

### Use for 8-10 weeks

# Severe Acne

Papules/pustules + cysts/nodules +/- scarring

### **Initial Treatment**

Oral antibiotic AND Topical retinoid Benzoyl peroxide +/- topical antibiotic

### Inadequate Effect

Change oral antibiotic Consider OCP (females) Refer to dermatology + oral isotretinoin

Other options available for consideration in mild, moderate or severe acne:

- 1. Azelaic Acid
- 2. Topical Dapsone

#### Use for 8-10 weeks

## References:

- 1. Eichenfield LF, Krakowsi AC, Piggott C et al. Evidence-based recommendations for the diagnosis and treatment of pediatric acne. Pediatrics (2013): 131(3); \$163-186.
- 2. Basak SA, Zaenglein AL. Acne and its management. Pediatrics in Review (2013): 34(11); 479-497.