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This leaflet aims to provide information about acne:

- General treatment guidelines
- Treatment options
- Criteria for dermatology referral

Acne is a common skin condition affecting the pilosebaceous unit. The lesions typically manifest at puberty.

Pathogenesis

- Follicular hyperkeratosis
- Stimulation of sebum secretion by androgens
- Microbial colonization of pilosebaceous units by *Propionibacterium acnes*, which promotes inflammation

Clinical features

- Favors the face, chest, and upper back
- Non-inflammatory acne
 - Open comedones (whiteheads)
 - Closed comedones (blackheads)
- Inflammatory acne
 - Erythematous papules, pustules, nodules, and cysts
 - Results in post-inflammatory hyperpigmentation which fades slowly over time
 - Nodulocystic acne often leads to scarring





The scarring that may result from acne can cause significant disfigurement and interfere with a person's quality of life. Therapy is therefore aimed at reducing the number of active lesions and preventing or minimizing scarring.

General Treatment Guidelines for Acne

- Proper skin care
 - Gently wash skin 1-2 times/day with mild cleanser
 - Ex: CeraVe facial cleanser, Cetaphil facial cleanser, Spectro cleanser, Neutrogena ultragentle cleanser
- Avoid scrubbing affected areas as this can irritate and inflame acne
- Avoid exacerbating factors such as trauma caused by picking or squeezing acne lesions
- Encourage a low-glycemic diet
- Ensure that makeup, sunscreen, and moisturizer are non-comedogenic
- Reinforce compliance and patience. Acne may worsen within first few weeks of treatment and medications often take weeks to months to show results

Options for Treatment

Note: avoid retinoids in pregnancy

Acne type	Treatment	Notes
<p>Mild – Comedonal Open and closed comedones</p>  <p>https://dermnetz.org/topics/comedonal-acne/</p>	<p>Topical retinoids at night Examples:</p> <ul style="list-style-type: none">• Stieva-A 0.025%, 0.05% or 0.1% cream• Retin-A Microgel 0.04% or 0.1%• Differin 0.1% cream• Differin XP 0.3% gel <p>OR</p> <p>Topical benzoyl peroxide at night Example</p> <ul style="list-style-type: none">• Benzagel (OTC)	<p>Topical retinoids can cause irritation. Patients may begin with application 2 nights per week and increase to every night over a period of 3 weeks. Irritation, scaling and dryness can be addressed with a non-greasy moisturizer (Cetaphil or Cerave lotion).</p>
<p>Mild – Mixed Comedones and a few inflammatory lesions (papulopustules)</p>  <p>https://dermnetz.org/topics/acne-vulgaris/</p>	<p>Topical retinoids at night See above for examples.</p> <p>AND</p> <p>Topical antibiotic preparations in the morning Examples:</p> <ul style="list-style-type: none">• Benzaclin gel (clinda 1%/BPO 5%)• Clindoxyl gel (clinda 1%/BPO 3%)• Dalacin-T solution (clinda 1%) <p>OR</p> <p>Tactupump (adapalene 0.1%/BPO 2.5%) at night</p>	<p>The use of benzoyl peroxide in combination with topical or oral antibiotics minimizes the emergence of antibiotic resistance.</p>
<p>Moderate-to-severe Comedones, inflammatory papules, and pustules; a greater number of lesions are present than in milder inflammatory acne</p>  <p>http://www.peds.org.uk/clinical-guidance/acne-vulgaris</p>	<p>Topical treatment (same as for mild-mixed acne)</p> <p>AND</p> <p>Oral antibiotics Examples:</p> <ul style="list-style-type: none">• Minocycline 50-100mg PO daily x 4 months• Doxycycline 100mg PO daily x 4 months	<p>Continue oral antibiotics for a minimum of 2 months prior to assessing efficacy.</p> <p>Consider oral contraceptives (ex: Alesse, Marvelon, Diane-35) in females of child-bearing age.</p>
<p>Severe – Nodulocystic Cysts, large nodules (>5mm), and scarring</p>  <p>https://www.medicinenet.com/image-collection/cystic_acne_picture/picture.htm</p>	<p>Initiate treatment for moderate to severe acne See above</p> <p>AND</p> <p>Refer to dermatology for potential systemic isotretinoin treatment</p>	<p>If patient is being referred for isotretinoin therapy, please order the following blood tests:</p> <ul style="list-style-type: none">• LFTs• CBC• Fasting lipid levels• B-HCG if female

Guidelines for Dermatology Referral

- Moderate acne treatment failure with consideration of oral isotretinoin therapy
- Severe nodulocystic acne with scarring or acne fulminans
 - Please initiate oral antibiotic and topical treatment as per moderate-to-severe acne while awaiting consultation
- Acne in prepubertal children
- Suspected underlying endocrinological etiology (ex: PCOS)
- Treatment complications
- Diagnostic uncertainty
- If suspect severe psychological distress, consider psychiatry consult at the same time as referral to dermatology.

** Please specify indication on consultation sheet, as well as age, sex, and treatment prescribed to date.*
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Disclaimer:

The recommendations provided in this document are based on up-to-date evidence and expert opinions. However, the educational material contained herein is NOT a substitute for clinical judgment that is required to meet the different needs of individual patients. For more information, please consult a physician.