

Children's National-Pediatric Health Network

Best Practices in Primary Care Acne Management

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Pediatric **Health** Network



A few notes about today's Grand Rounds

- All lines are muted throughout the presentation.
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Today's Speaker



Ashley Paige Smith Fraser, NP, CRNP
Nurse Practitioner

Disclosures: No relevant disclosures

Learning Objectives:

1. Identify the etiology of adolescent acne
2. How to complete an acne exam and describe your findings
3. How to use your exam to drive your treatment choices
4. Over the counter versus prescription treatment options
5. Identifying post inflammatory hyperpigmentation vs scarring and treatment options
6. When to refer to dermatology

Resources for Co-Management Acne

- Acne Treatment Algorithm
- Acne Medication Tips and Tricks
- Handouts for Patients and Families
 - Acne Patient Education and Acne Action Plan
 - OTC Recommendations for:
 - Gentle cleansers
 - Acne friendly lotions
 - Acne friendly sunscreens
 - No white cast sunscreens
 - Benzoyl peroxide
 - Salicylic Acid
 - Spot treatments



Adolescent Acne

Etiology of adolescent acne

Four key factors:

1. Increased sebum production
2. Hyperkeratinization of the uppermost section of the hair follicle
3. Inflammation
4. *Cutibacterium acnes* (*C. acnes* previously *P. acnes*)

What do our patients think cause acne?

Dirt

Chocolate

Milk → Whey¹

An underlying disease

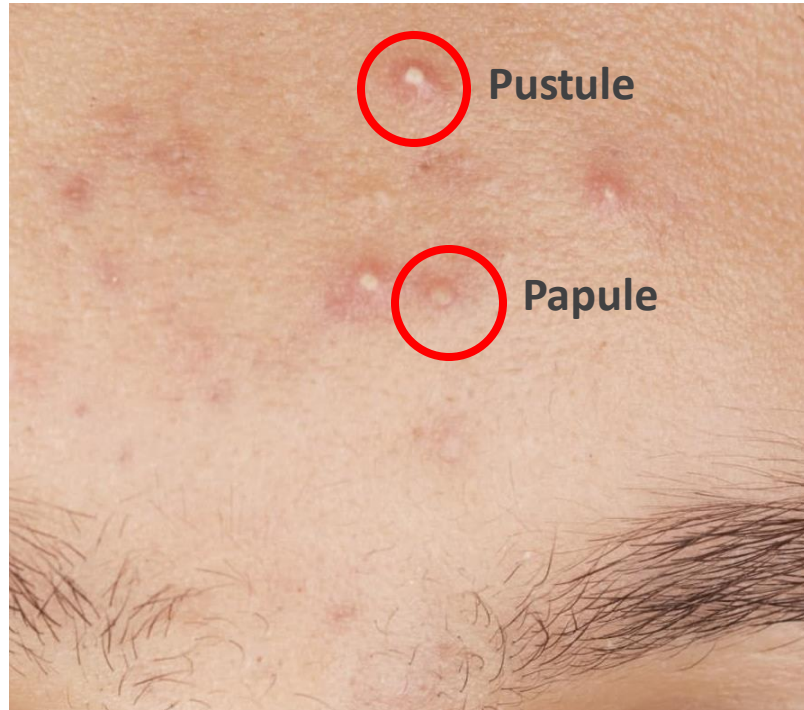
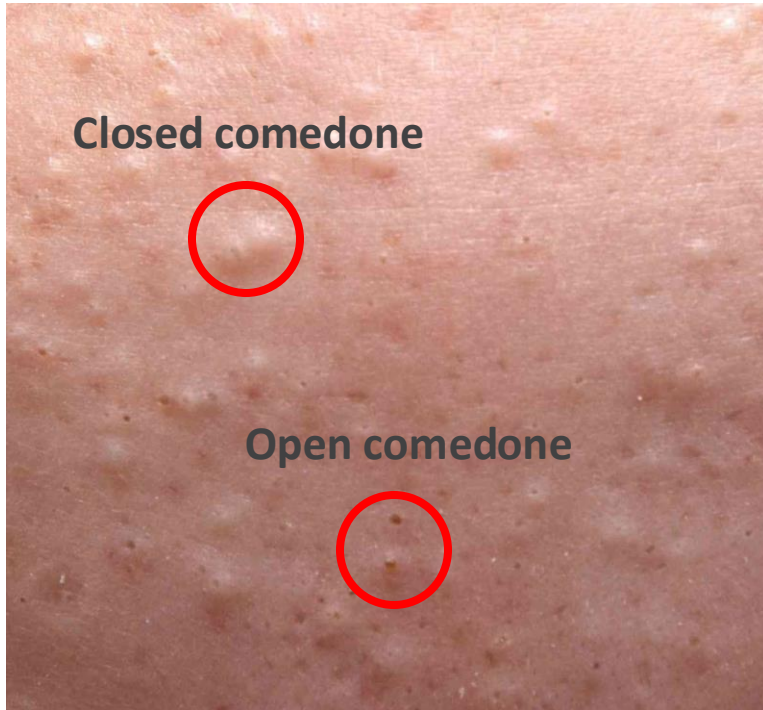


Acne Exam

Acne Subjective Exam

- At what age did acne start?
- Is there family history of severe acne?
 - Any family members that required treatment with isotretinoin/Accutane?
- Is today a good, bad or normal day for their acne?
- Do they get breakouts to their face only or chest and back involvement?
- Are there marks left after a pimple goes away?
 - Do you pick or pop at pimples?
- What have you tried? OTC? Prescription?
 - How long did you try them for?
 - If you stopped using something, why?
 - Anything that has helped?
- Is the patient having other signs of puberty? When did this start?
 - For female patients- have they started their menses? If yes when?
 - For female patients- are there more breakouts around periods? Just around periods?

Acne exam and terminology



Comedonal vs Inflammatory vs Nodulocystic



Mild Acne



Moderate Acne



Severe Acne



Hormonal Acne



Treatment Choices

Acne Treatments:

- Topical retinoids
- Benzoyl peroxide
- Topical clindamycin
- Doxycycline
- Combined oral contraceptive pills
- Spironolactone
- Isotretinoin

Acne Treatments: Topical Retinoids

- All acne patients need a retinoid
- Comedolytic (unclogs pores), normalizes shedding of skin cells at the opening of the pores and anti inflammatory

Choices:

- Adapalene/Differin (OTC and prescription)
- Tretinoin/Retin A (0.025%, 0.5% and 0.1)
- Tazarotene/Tazorac (0.1%)

How to use it:

- Apply a pea- sized amount to your finger and “polka dot” your face evenly, then rub in the medicine.
- Start 2-3 nights a week, then increase to every other night and then to every night if possible.
- SE: redness, irritation and dry, peeling skin.



Acne Treatments: Benzoyl Peroxide

- Kills *C.acnes*, unclogs pores and is anti-inflammatory
- Prescription vs OTC
- What strength?
 - 4-5% for the face
 - 10% for the body
 - 2.5% for sensitive skin
- SE: Skin irritation and bleaching of towels/clothes



Acne Treatments: Topical clindamycin

- Also helps reduce *C.acnes*
- Should never be used monotherapy
- Combine with benzoyl peroxide helps bacterial resistance
- Combination products:
 - Benzoyl peroxide- clindamycin 5%- 1.2%



Acne Treatments: Doxycycline

- Decreases *C. acnes* and reduces inflammation
- Why not minocycline?
 - Rare: drug-induced lupus erythematosus, drug reaction with eosinophilia and systemic symptoms (DRESS).
- Treatment course: 3-4 months
 - >50kg: 100mg BID
 - <50kg: 50mg BID
- Directions: take twice daily with food and large glass of water
- SE: GI upset, photosensitivity and rarely pseudotumor cerebri (Headaches and changes in vision)

Acne Treatments: Hormonal Acne

Spironolactone:

- 50mg BID- start with one pill daily for one week then increase to maintenance dosing of BID
- Contraindicated during pregnancy-
Feminization of male fetus
- SE:
 - Breast tenderness, menstrual irregularity
 - Increase urination, headaches, dizziness
 - Hyperkalemia- rare- routine monitoring not recommended

Combined Oral Contraceptive Pills:

- Four FDA approved for acne
 - Beyaz
 - Estrostep
 - Ortho Tri-cyclen
 - Yaz
- Screening:
 - Concurrent medications, smoking, hypertension, diabetes, venous and arterial thromboembolism, and migraine with aura
- Progesterone only birth controls will not help acne and can exacerbate it
 - Minipill, Nexplanon and Depo shot
- Common SE: Nausea, headaches, breast tenderness and spotting

Acne Treatments: Isotretinoin

- Isotretinoin is FDA approved for patients 12 and older with recalcitrant nodulocystic acne
- iPledge requirements- birth control options
- “Cure for Acne”- 6-8 months of treatment- need to be seen every month
- Important for patients who have scarring
- Common side effects:
 - Dry skin and lips
 - Transient lower back aches
- Mood changes: unclear, likely no association
 - Systematic reviews largely support no change in mood or improvement in mood on isotretinoin
 - Screening for mood changes at monthly appointments recommended



Post Inflammatory Hyperpigmentation vs Scarring

Acne scarring

Ice Pick



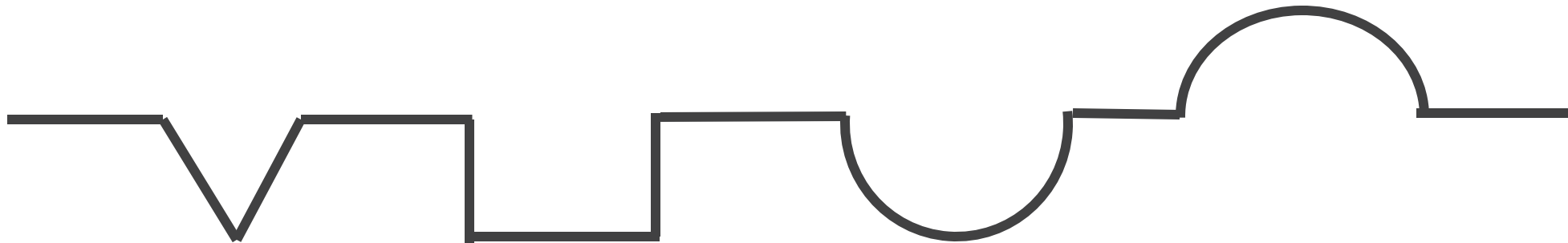
Box Car



Rolling



Hypertrophic



Post inflammatory hyperpigmentation (PIH)

- PIH is a color change, scarring is a texture change
- PIH is temporary and can take 3-6 months to return to normal skin tone.
- If acne is picked at, it can take 6 months or more
- Skin picking can lead to significant PIH
- Moisturizing and sun protection for PIH
- Products OTC that contain niacinamide or azelaic acid may help with PIH
- There are prescriptions out of pocket that contain hydroquinone – refer to dermatology



Developing your acne treatment plan

How to use your exam to drive your treatment choices

1. Determine severity of acne (Mild, moderate, severe)
2. Determine type of acne lesions- comedonal, inflammatory, hormonal, nodulocystic
3. Is there scarring and/or PIH?

How to use your exam to drive your treatment choices

Mild Acne

Scattered blackheads and
whiteheads

and/OR

Few scattered papules and
pustules, no scarring



How to use your exam to drive your treatment choices

Mild Acne

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whiteheads

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pustules, no scarring

Topical retinoid +/- benzoyl peroxide:

Adapalene/Differin 0.1% gel or
tretinoin 0.025% cream

Benzoyl peroxide 4 or 5% for the face.
Other options include 10% for chest
and back and 2.5% for sensitive skin.

If starting both:

1. In the morning: Benzoyl peroxide
face wash, then OTC acne friendly
moisturizer
2. At night: Gentle non-medicated
face wash, then retinoid, then OTC
acne friendly moisturizer

How to use your exam to drive your treatment choices

Moderate
Acne

Innumerable blackheads and
whiteheads OR
Numerous papules and pustules OR
Involvement of the face, chest and
back



How to use your exam to drive your treatment choices

Moderate
Acne

Innumerable blackheads and
whiteheads OR
Numerous papules and pustules OR
Involvement of the face, chest and
back

Topical retinoid, benzoyl peroxide (see
Mild Acne) **and Doxycycline**

>50kg: Doxycycline 100mg BID

<50kg: Doxycycline 50mg BID

Reassess acne in 1 month.

If improved, complete 3 month course
of doxycycline and follow up.

If little to no improvement, refer to
Dermatology and continue above
medications if no SEs

If acne returns after 3 month course,
continue retinoid and benzoyl peroxide
and refer to dermatology

How to use your exam to drive your treatment choices

Severe Acne

Any scarring regardless of current
level of active acne lesions

OR

Nodules, cysts or innumerable
papules and pustules



How to use your exam to drive your treatment choices

Severe Acne

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Reassess acne in 1 month.

Refer to Dermatology for isotretinoin start

How to use your exam to drive your treatment choices



Topical retinoid, benzoyl peroxide (see Mild Acne) and Doxycycline

>50kg: Doxycycline 100mg BID

<50kg: Doxycycline 50mg BID

~~Reassess acne in 1 month.~~

Refer to Dermatology for isotretinoin start

Over the counter versus prescription treatment options

- Gentle face cleansers
- Salicylic Acid
- Benzoyl peroxide
- Acne friendly moisturizers and sunscreens
- Spot treatments

Gentle face cleansers

- Non-comedogenic
- Not specifically designed for acne
- Ideal to use at night before applying tretinoin



Salicylic Acid Face Washes

- Great option for sensitive skin acne patients
- Can be used for mild acne if benzoyl peroxide is too drying or irritating



Benzoyl peroxide face washes

- Can be difficult to get prescription ones covered
- OTC options are sometimes better tolerated



Acne moisturizers



Acne moisturizers with sunscreen



Acne Friendly Sunscreens with No-White Cast



Spot Treatments for Acne



Over the Counter Dark Spot Treatments

- Most important is to stop the acne breakouts
- Moisturizing and sunscreen first
- Best evidence behind niacinamide, azelaic acid and vitamin C
- Refer for significant PIH or any signs of scarring



Referrals

When to refer

- Severe or nodulocystic acne
- Any scarring and/or significant PIH
- Acne not improving or not responding as expected

Thank You!

Question & Answer

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