

Acne with “Nan”

Jonette E. Keri, M.D., Ph.D.

Professor, Dr. Phillip Frost Department of Dermatology and Cutaneous Surgery,
University of Miami, Miller School of Medicine

Chief, Dermatology Service, Bruce W. Carter VAMC (Miami VA)

Disclosures

- Ortho Dermatologics – advisory board, author
- Almirall – advisory board and author
- L’Oreal – advisory board and author
- National Dairy Council – advisor

Outline

- Newest American Academy of Dermatology Acne Guidelines
- Oral treatments – possible gaps in our knowledge

Guidelines of care for the management of acne vulgaris

Rachel V. Reynolds, MD (Co-Chair),^a Howa Yeung, MD, MSc,^b Carol E. Cheng, MD,^c
 Fran Cook-Bolden, MD,^d Seemal R. Desai, MD,^{e,f} Kelly Druby, BS,^g Esther E. Freeman, MD, PhD,^h
 Jonette E. Keri, MD, PhD,^{i,j} Linda F. Stein Gold, MD,^k Jerry K. L. Tan, MD,^{l,m} Megha M. Tollefson, MD,ⁿ
 Jonathan S. Weiss, MD,^{b,o} Peggy A. Wu, MD, MPH,^p Andrea L. Zaenglein, MD,^q
 Jung Min Han, PharmD, MS,^r and John S. Barbieri, MD, MBA (Co-Chair)^s

Background: Acne vulgaris commonly affects adults, adolescents, and preadolescents aged 9 years or older.

Objective: The objective of this study was to provide evidence-based recommendations for the management of acne.

Methods: A work group conducted a systematic review and applied the Grading of Recommendations, Assessment, Development, and Evaluation approach for assessing the certainty of evidence and formulating and grading recommendations.

Results: This guideline presents 18 evidence-based recommendations and 5 good practice statements. Strong recommendations are made for benzoyl peroxide, topical retinoids, topical antibiotics, and oral doxycycline. Oral isotretinoin is strongly recommended for acne that is severe, causing psychosocial burden or scarring, or failing standard oral or topical therapy. Conditional recommendations are made for topical clascoterone, salicylic acid, and azelaic acid, as well as for oral minocycline, sarecycline, combined oral contraceptive pills, and spironolactone. Combining topical therapies with multiple mechanisms of action, limiting systemic antibiotic use, combining systemic antibiotics with topical therapies, and adding intralesional corticosteroid injections for larger acne lesions are recommended as good practice statements.

Limitations: Analysis is based on the best available evidence at the time of the systematic review.

Conclusions: These guidelines provide evidence-based recommendations for the management of acne vulgaris. (J Am Acad Dermatol <https://doi.org/10.1016/j.jaad.2023.12.017>.)

Key words: Acne; acne vulgaris; adapalene; antiandrogens; antibiotics; azelaic acid; azithromycin; benzoyl peroxide; clascoterone; clindamycin; contraceptives; corticosteroids; *Cutibacterium acnes*; diet and acne; doxycycline; erythromycin; grading and classification of acne; guidelines; hormonal therapy; isotretinoin; light therapies; microbiological and endocrine testing; minocycline; retinoids; salicylic acid; sarecycline; spironolactone; tazarotene; treatment; tretinoin; trifarotene.

From the Department of Dermatology, Beth Israel Deaconess Medical Center, Boston, Massachusetts^a; Department of Dermatology, Emory University School of Medicine, Atlanta, Georgia^b; Division of Dermatology, Department of Medicine, University of California Los Angeles, Los Angeles, California^c; Department of Dermatology, Weill Cornell Medicine, New York, New York^d; Innovative Dermatology, Plano, Texas^e; Department of Dermatology, University of Texas Southwestern Medical Center, Dallas, Texas^f; Penn State Health Hampden Medical Center, Enola, Pennsylvania^g; Department of Dermatology, Massachusetts General Hospital, Boston, Massachusetts^h; University of Miami, Miller School of Medicine, Miami, Floridaⁱ; Miami VA Medical Center, Miami, Florida^j; Department of Dermatology, Henry Ford Health, Detroit, Michigan^k; Western University, London, Ontario, Canada^l; Windsor Clinical Research Inc., Windsor, Ontario, Canada^m; Departments of Dermatology and Pediatrics, Mayo Clinic, Rochester, Minnesotaⁿ; Georgia Dermatology Partners, Snellville, Georgia^o; Department of Dermatology, University of California

Davis, Sacramento, California^p; Departments of Dermatology and Pediatrics, Penn State/Hershey Medical Center, Hershey, Pennsylvania^q; American Academy of Dermatology, Rosemont, Illinois^r; and Department of Dermatology, Brigham and Women's Hospital, Boston, Massachusetts^s.

Funding sources: This study was funded in total by internal funds from the American Academy of Dermatology.

Note: The "Executive summary: Guidelines of care for the management of acne vulgaris" is available as supplementary material.

Accepted for publication December 5, 2023.

Correspondence to: Jung Min Han, PharmD, MS, American Academy of Dermatology, 9500 Bryn Mawr Ave, Suite 500, Rosemont, IL 60018. E-mail: jminhan@aad.org.

Published online January 31, 2024.

0190-9622/\$36.00

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<https://doi.org/10.1016/j.jaad.2023.12.017>

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J Am Acad Dermatol. 2024 May;90(5):1006.e1-1006.e30. doi: 10.1016/j.jaad.2023.12.017. Epub 2024 Jan 30.

Acne Guidelines

- The American Academy of Dermatology's acne guidelines were updated and published in 2024 which resulted in 18 evidence-based recommendations and 5 good practice statements.

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Acne Guidelines

- **Strong recommendations were made for:**
 - Topical benzoyl peroxide, retinoids, and/or antibiotics and their fixed-dose combinations
 - Oral doxycycline
 - Oral isotretinoin is strongly recommended for severe acne, acne causing psychosocial burden or scarring, or acne failing standard treatment with oral or topical therapy

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Acne Guidelines

- **Conditional recommendations are made for:**
- Topical clascoterone, salicylic acid, azelaic acid
- Oral minocycline
- Oral sarecycline
- Combined oral contraceptives
- Oral spironolactone

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Acne Guidelines

- **Good clinical practice recommendations include:**
- Using topical therapies combining multiple mechanisms of action
- Limiting systemic antibiotic use
- Combining systemic antibiotics with benzoyl peroxide and other topical therapies
- Adjuvant intralesional corticosteroid injections



(My Guideline – personalize the treatment)

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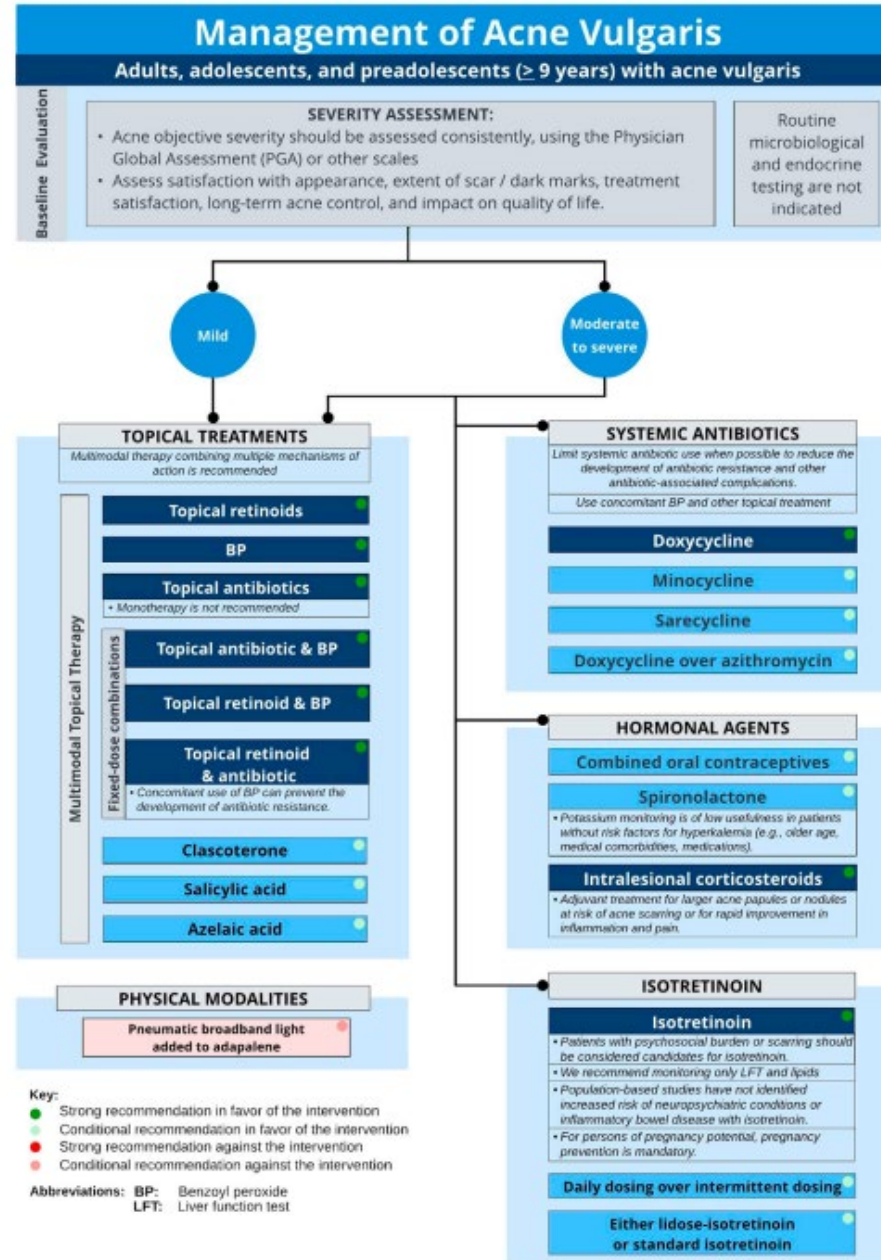


Fig 1. Management of acne vulgaris.

Acne Guidelines

- **Conditional recommendations are made for:**
- Topical clascoterone, salicylic acid, azelaic acid
- Oral minocycline
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Sarecycline

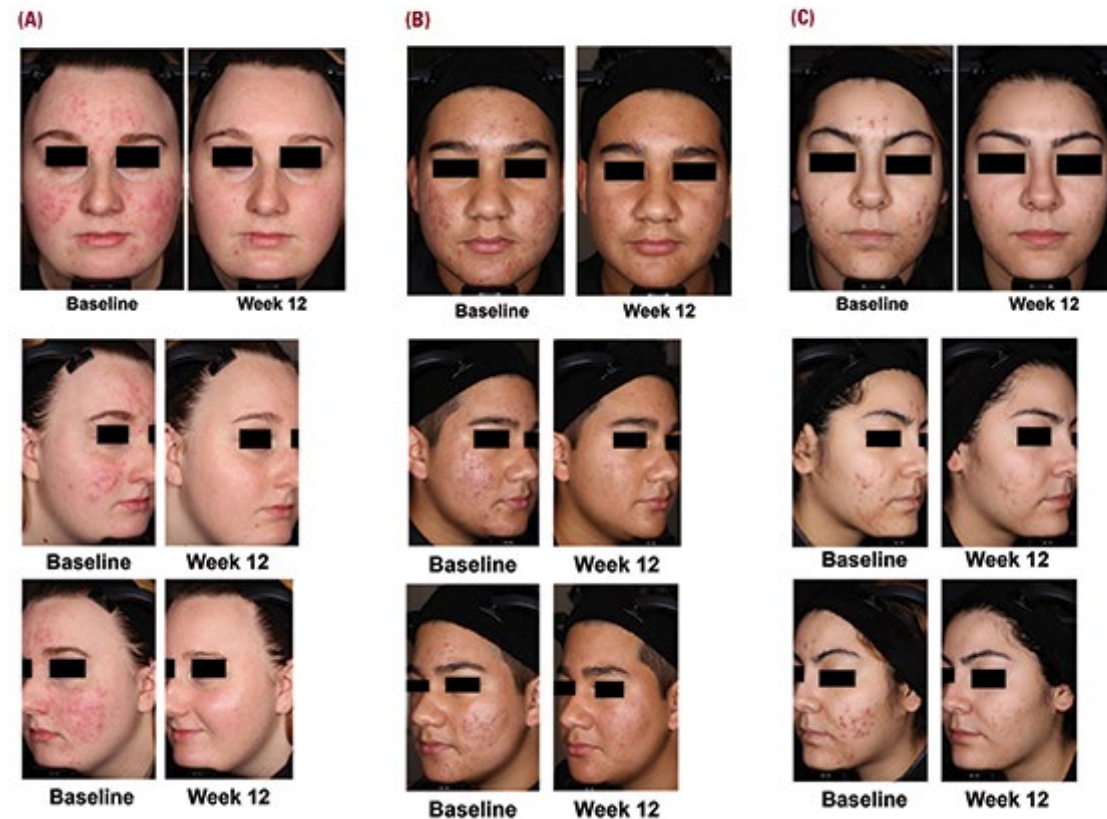
- Newer tetracycline class oral antibiotic
- Only narrow spectrum tetracycline antibiotic
- Approved for acne
- Daily dosing
- Weight based dosing
- 1.5mg/kg/day
- FDA Approved ages **9 years and up**
- *Cutibacterium acnes* has a low propensity to develop resistance

Sarecycline

- Sarecycline 60-150mg orally daily
 - <54kg = 60mg po daily
 - 55-84kg = 100mg po daily
 - 85-136 = 150mg po daily
- Approved for moderate to severe acne
- Used in patients **≥ 9 years of age**
- Main side effect – nausea (3.1%), vaginal candidiasis (<1%)

Sarecycline

FIGURE 7. Response to sarecycline in (A) a 23-year-old female patient in SC1401^a; (B) a 14-year-old male patient in SC1402^b; (C) a 19-year-old female patient in SC1401.^c IGA, Investigator's Global Assessment. ^aIGA score: 4 at baseline, 1 at week 12. Inflammatory lesions: 50 at baseline, 4 at week 12. Noninflammatory lesions: 22 at baseline, 17 at week 12. ^bIGA score: 4 at baseline, 1 at week 12. Inflammatory lesions: 42 at baseline, 8 at week 12. Noninflammatory lesions: 74 at baseline, 31 at week 12. ^cIGA score: 4 at baseline, 1 at week 12. Inflammatory lesions: 33 at baseline, 8 at week 12. Noninflammatory lesions: 33 at baseline, 5 at week 12.



Moore A, Green LJ, Bruce S, et al. Once-Daily Oral Sarecycline 1.5 mg/kg/day Is Effective for Moderate to Severe Acne Vulgaris: Results from Two

Identically Designed, Phase 3, Randomized, Double-Blind Clinical Trials. J Drugs Dermatol. 2018 Sep 1;17(9):987-996.

Combined Oral Contraceptives for Acne - Contraindications

Absolute contraindications (Category 4: A condition that represents an unacceptable health risk if COC is used)

Relative contraindications (Category 3: A condition for which the theoretical or proven risks usually outweigh the benefits of COC)

Personal characteristics and reproductive history

- Age ≥35 y and smoking ≥15 cigarettes daily
- <21 d postpartum, regardless of breastfeeding status

- Age ≥35 y and smoking <15 cigarettes daily
- Breastfeeding patient 21-29 d postpartum
- Breastfeeding patient 30-42 d postpartum, with other VTE risk factors[‡]
- Nonbreastfeeding patient 21-42 d postpartum, with other VTE risk factors[‡]

Cardiovascular disease

- SBP ≥160 mmHg or DBP ≥100 mmHg
- Vascular disease
- Acute VTE or history of VTE with ≥1 risk factor for recurrence[‡]
- Major surgery with prolonged immobilization
- Known thrombogenic mutation[‡]
- Multiple risk factors for atherosclerosis[‡]
- Current or history of ischemic heart disease
- Current or history of stroke
- Valvular heart disease with complications[‡]
- Peripartum cardiomyopathy with normal or impaired cardiac function for <6 mo or moderate or severely impaired cardiac function

- SBP 140-159 mmHg or DBP 90-99 mmHg
- Adequately controlled hypertension
- VTE with no risk factors for recurrence
- Superficial venous thrombosis
- Peripartum cardiomyopathy with normal or mildly impaired cardiac function for ≥6 mo

Gastrointestinal conditions

- Acute or flare of viral hepatitis
- Severe or decompensated cirrhosis
- Hepatocellular adenoma
- Malignant liver tumor (hepatoma)

- History of malabsorptive procedures (Roux-en-Y gastric bypass or biliopancreatic diversion)
- Ulcerative colitis or Crohn disease with increased VTE risk[‡]
- Untreated or medically treated symptomatic gallbladder disease
- History of COC-related cholestasis

- Diabetes with nephropathy, retinopathy, neuropathy, other vascular disease, or with duration > 20 y

- Current breast cancer
- Migraine with aura
- Systemic lupus erythematosus with positive or unknown antiphospholipid antibodies
- Solid organ transplantation complicated by acute or chronic graft failure, rejection, or cardiac allograft vasculopathy

- Past breast cancer with no evidence of disease for 5 y
- Multiple sclerosis with prolonged immobility

J. Am Acad Dermatol . 2024 May;90(5):1006.e1-1006.e30. Guidelines of care for the management of acne vulgaris Rachel V Reynolds 1, Howa Yeung 2, Carol E Cheng 3, Fran Cook-Bolden 4, Seemal R Desai 5, Kelly M Druby 6, Esther E Freeman 7, Jonette E Keri 8, Linda F Stein Gold 9, Jerry K L Tan 10, Megha M Tollefson 11, Jonathan S Weiss 12, Peggy A Wu 13, Andrea L Zaenglein 14, Jung Min Han 15, John S Barbieri 16

Combined Oral Contraceptives (COC) approved for acne

- 4 COCs have a secondary FDA indication for treating acne:
- norgestimate/EE (15y)
- norethindrone acetate/EE/ferrous fumarate (15y)
- drospirenone/EE (14y)
- drospirenone/EE/levomefolate (14y)

- Recommend:

Counseling of Risks/Benefits of COC

Blood Pressure Check

Pregnancy test**

NO pelvic exam is needed

Spironolactone Prescribing in Adolescents

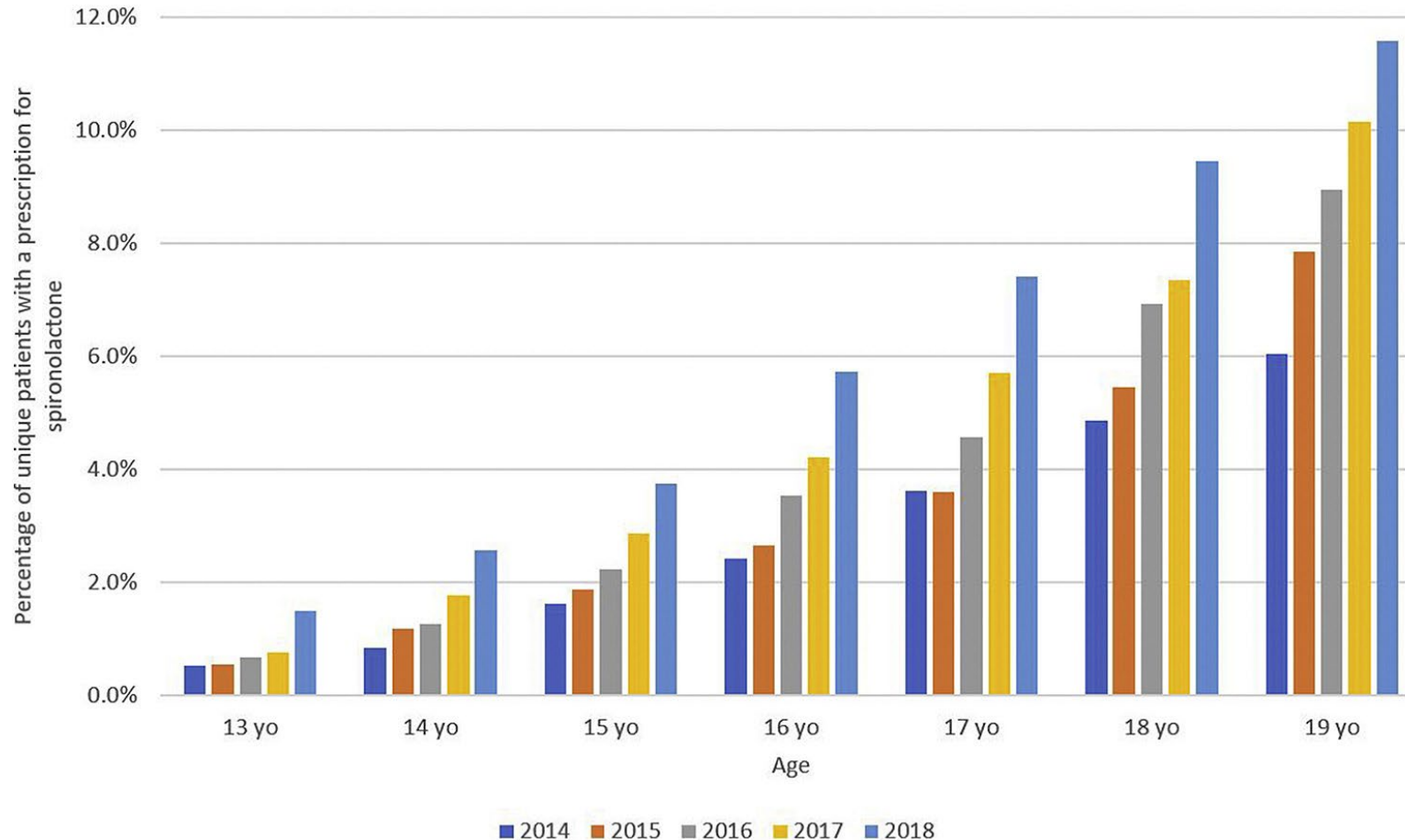
- There are more prescriptions of spironolactone being written for adolescents with acne and hidradenitis suppurativa
- Future studies to evaluate short- and long-term safety of this medication in younger females.
- Trends in the prescribing pattern of spironolactone for acne and hidradenitis suppurativa in adolescents. J Am Acad Dermatol. 2022 Sep;87(3):684-686.

Spironolactone Prescribing in Adolescents

Horissian M,
Maczuga S,
Barbieri JS,
Zaenglein A.
Trends in the
prescribing
pattern of
spironolactone
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hidradenitis
suppurativa in
adolescents. J Am
Acad Dermatol.
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Sep;87(3):684-

686.
Information Classification: General



PCOS and Acne

- Girls with severe acne or acne resistant to oral and topical agents, including isotretinoin, may have a 40% likelihood of developing PCOS.



- Neil F Goodman, Rhoda H Cobin, Walter Futterweit, Jennifer S Glueck, Richard S Legro, Enrico Carmina; American Association of Clinical Endocrinologists (AACE); American College of Endocrinology (ACE); Androgen Excess and PCOS Society (AES). AMERICAN ASSOCIATION OF CLINICAL ENDOCRINOLOGISTS, AMERICAN COLLEGE OF ENDOCRINOLOGY, AND ANDROGEN EXCESS AND PCOS SOCIETY DISEASE STATE CLINICAL REVIEW: GUIDE TO THE BEST PRACTICES IN THE EVALUATION AND TREATMENT OF POLYCYSTIC OVARY SYNDROME--PART 1. Endocr Pract. 2015 Nov;21(11):1291-300.

Metformin and Acne

- Meta-analysis evaluating acne in patients without metabolic or hormonal disorders
- Metformin works in these patients
- Dose 500mg orally twice daily

Future?

- Consensus statement on the safety of contraceptive and spironolactone use in girls aged 12-16 within the next year
- PeDRA funded study

Future?

Low-dose, biphasic oral minocycline for Rosacea

- Minocycline extended-release oral capsule 40mg
- FDA approved for the treatment of rosacea in November 2024, expected availability second quarter of 2025
- For papulopustular rosacea not acne
- For patients 18 years and older

- Greater efficacy than placebo, 20mg dose of same medication, and doxycycline 40mg

- Tsianakas A, Pieber T, Baldwin H, et al. Minocycline Extended-Release Comparison with Doxycycline for the Treatment of Rosacea: A Randomized, Head-to-Head, Clinical Trial. J Clin Aesthet Dermatol. 2021 Dec;14(12):16-23.

Questions that come up?

Isotretinoin and increased sleep

- 77/ 123 (62.6%) patients with acne on isotretinoin, reported **oversleeping**.
- Nearly half (60/123 patients, 48.8%) were categorized as **poor sleepers** according to the Pittsburgh Sleep Quality Index.
- The interviews revealed anxiety (9.8%) and depression (4.9%) percentages among 9.8% and 4.9% of participants, respectively.**

- Shawky H, Elsheikh M, et al. Isotretinoin-Induced Hypersomnia: A Cross-sectional Study and Literature Review. Adv Skin Wound Care. 2024 Aug 1;37(8):1-3.

Back Pain with Isotretinoin

- Inflammatory back pain BP was observed in (10.4%), and sacroiliitis was detected in (11%) patients on isotretinoin
- Oral antibiotic group, we did not observe back pain or sacroiliitis.
- The incidence of IBP and sacroiliitis differed significantly between the isotretinoin and oral antibiotic groups ($p < 0.0001$, $p = 0.02$).
- Pain went away after stopping the isotretinoin.
- Civelek US, Selcuk LB, et al. Deniz Aksu Arica Isotretinoin-induced inflammatory back pain and sacroiliitis in patients with moderate-to-severe acne vulgaris. Cosmet Dermatol. 2022 Oct;21(10):4846-4851.

Questions if time...

Thank you!