

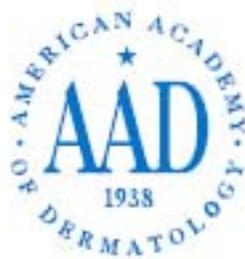


# 2018 AAD Summer Meeting

Chicago, Illinois • July 26-29, 2018  
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If you choose to submit Clinical Pearls in lieu of your presentation as a handout, please use this template.

Share the key takeaways and clinical pearls from your presentation with attendees.
Session Number and Title:  <b><u>S012 - Pearls: Diagnostic and Therapeutic</u></b>
Presenter Name:  Sacharitha Bowers, MD
Clinical Pearls: <b>Vitamin D</b> Normal: > 30 ng/ml or > 75 nmol/L ; Insufficiency: 20-30 ng/ml or 50-75 nmol/L Deficiency: < 20 ng/ml or < 50 nmol/L ; < 10 ng/ml is severely deficient ---Toxicity may occur with levels over 200 ng/dl, though this is rare Check 25 hydroxyvitamin D level ( 25(OH)D ) <ul style="list-style-type: none"><li>▶ If deficient or insufficient, replace to normalcy</li></ul> ICD 10 code E55.0 – (vitamin D deficiency, unspecified) <ul style="list-style-type: none"><li>▶ If patient has a clinical indication for measuring vitamin D, you can usually justify this code</li></ul> ICD 10 code Z13.21 – Encounter for screening for nutritional disorder <ul style="list-style-type: none"><li>▶ Alternate coding option</li></ul> <b>How to replace?</b> <ul style="list-style-type: none"><li>▶ If 25(OH)D &lt; 10 ng/ml →<ul style="list-style-type: none"><li>▶ 50,000 IU D3 per week x 8 weeks, recheck, and if &gt; 30, then 800-1000 IU QD thereafter for maintenance</li></ul></li><li>▶ If &gt; 10 ng/ml but &lt; 30 ng/ml →<ul style="list-style-type: none"><li>▶ can replace with lower daily doses (2000 -4000 IU/day ) OR can use 50,000 IU/week x 8 weeks</li><li>▶ Recheck in 8 weeks, and if &gt; 30, then 800-1000 IU QD thereafter for maintenance; <i>Take with food!</i></li></ul></li></ul> In general, every 100 IU/day raises vitamin D level 1 ng/ml after 2-3 months So....1000 IU/day raises level 10 ng/ml after 2-3 months If level is 10, 1000 IU/day → 20 after 2-3 months, or 2000 IU/day raises level to 30 after 2-3 months Physiologic homeostasis will regulate to protect against hypervitaminosis unless ingestion is extreme <ul style="list-style-type: none"><li>▶ IOM &amp; NIH → 4000 IU/day is safe upper limit of normal in adults</li></ul>



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Groups at risk for vitamin D deficiency: Breastfed infants, Elderly, Darker skin type; Limited UV exposure, GI disorders → fat malabsorption (IBD), Obese (due to fat sequestration of vit D)

What do I do?

▶ **Chronic urticaria:**

- ▶ If symptoms are not controlled with antihistamines → check 25(OH)D
- ▶ If the levels are normal, I still recommend taking 1000-4000 IU/day of vitamin D3

▶ **Atopic dermatitis, Psoriasis, Hidradenitis, Vitiligo**

- ▶ In risk group, with severe activity → check 25(OH)D, replace to normalcy, then maintenance

Probiotics:

▶ Probiotics have strain-specific anti-inflammatory effects

- ▶ Lactobacillus rhamnosus GG (LGG)
- ▶ Lactobacillus paracasei CNCM 1-403
- ▶ Bifidobacterium Infantis
- ▶ Bifidobacterium animalis ssp lactis (Bb12)
- ▶ Bifidobacterium longum 536
- ▶ Bifidobacterium breve CNCM
- ▶ Saccharomyces boulardii

**Anti-inflammatory benefits have been shown:**

- ▶ In studies involving intestinal diseases, probiotic strains → *reduced the expression of pro-inflammatory cytokines, via an action mostly mediated by toll-like receptors*
- ▶ A particular compound – VSL#3 – shown to have numerous anti-inflammatory benefits\*
  - ▶ Increased expression of anti-inflammatory cytokine IL-10
  - ▶ Attenuates frequencies of various other inflammatory cytokines
  - ▶ Has been shown to be beneficial following antibiotic therapy

When do I supplement with probiotics?

Anyone who will be on chronic daily, or chronic intermittent antibiotic therapy

Hidradenitis suppurativa patients (Link between HS and IBD)

Selected acne patients

On the horizon: other inflammatory disorders (atopic dermatitis, psoriasis, etc)

*Focus on **Lactobacillus** and **Bifidobacterium**, as these have most evidence*

- ▶ VSL#3
- ▶ Align (Bifidobacterium – best for IBS)
- ▶ Culturelle and Culturelle for Kids (Lactobacillus GG – best for abx-assoc diarrhea)
- ▶ MegaFlora: Nourish-Rebuild-Protect (Lactobacillus and Bifidobacterium)
- ▶ Certain foods (yogurt, kefir, kombucha, kimchi, etc...)

[A Gastroenterologist's Guide to Probiotics](#), *Clinical Gastroenterology and Hepatology*  
[Volume 10, Issue 9](#), September 2012, Pages 960-968

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- ▶ [US Probiotic Guide \(available as an app\)](#)

## Turmeric:

- ▶ Curcumin is most active component (2-5% of turmeric)

A study exploring *P. acnes* induced inflammatory mediators and the effect of certain herbs on these mediators →

- ▶ *P. acnes* induced reactive oxygen species and pro-inflammatory cytokines IL-8 and TNF-alpha ↓ by *curcuma longa*\*
- ▶ A review in 2016 revealed 10 studies that noted statistically significant improvement in a variety of skin conditions
  - ▶ Acne, alopecia, atopic dermatitis, psoriasis, vitiligo\*
- ▶ Overall, direct evidence of benefit is scant, but slowly growing.
- ▶ Mostly anecdotal

Turmeric – what do I do?

### Inflammatory skin disease

#### Hidradenitis

Selected acne, psoriasis, atopic dermatitis

1000 mg turmeric daily minimum dose

Look for products labeled as **95% curcuminoids**

Formulation with **black pepper extract, or piperine** to increase absorption

Caution in patients with GERD, gallstones, or biliary disease. May cause mild GI irritation/nausea at higher doses

Piperine may slow elimination of phenytoin, propranolol, and theophylline

ROOT2: 1160 mg in a 2 capsule serving. 2 month supply \$27

#### Diet and Skin Disease

- ▶ Gluten-free diet
- ▶ Intermittent fasting diet
- ▶ Ketogenic diet
- ▶ Low-carb/low glycemic index diet
- ▶ Plant-based/vegan diet
- ▶ Dairy-free diet
- ▶ Hypocaloric diet
- ▶ Mediterranean diet
  - ▶ Quintessential anti-inflammatory diet

What do I do? 1. Discuss role of diet and nutrition in depth with patient 2. Emphasize importance of addressing this as part of their treatment plan and refer to nutritionist if patient is willing. 3. In the meantime, if they don't have any special dietary reasons to not do this, I will start them on Mediterranean diet

- ▶ Ford et al, JAMA-D online, June 2018
- ▶ Systematic Review of 55 studies, 77,557 participants, 4534 with psoriasis:



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- ▶ “strongly recommend dietary weight reduction with a **hypocaloric diet in overweight and obese patients with psoriasis**”.
- ▶ “...psoriatic arthritis...weakly recommend **vitamin D supplementation** and dietary weight reduction with a hypocaloric diet in overweight and obese patients”.
- ▶ “weakly recommend a **gluten-free diet only in patients who test positive for serologic markers of gluten sensitivity**”.
- ▶ Phan et al, JAMA-D online, July 25<sup>th</sup> 2018
- ▶ **Role of Mediterranean diet with onset and severity of psoriasis**
- ▶ Prospective, web-based questionnaire; 35 735 respondents from the French NutriNet-Santé cohort, of whom 3557 had psoriasis
- ▶ → **statistically significant inverse association between adherence to the Mediterranean diet and severity of psoriasis**, after adjustment for sociodemographic variables and confounding factors including age, sex, physical activity, body mass index, tobacco use, educational level, a history of cardiovascular disease, and depression.
- ▶ **Conclusion: “The Mediterranean diet may slow the progression of psoriasis, so an optimized diet should be part of the multidisciplinary management of moderate to severe psoriasis”.**

Some book recommendations on dietary options :

The Obesity Code by Dr. Jason Fung; How Not to Die, by Dr. Michael Greger; Forks over Knives The Cookbook, by Del Sroufe; also, Dr. Andrew Weil’s Anti-inflammatory diet and food pyramid

Acne:

### Skin care tips

- ▶ Buy 2 bottles of facial cleanser (shower, sink) to encourage BID face washing
- ▶ Avoid cleansers with salicylic acid and BPO (unless your BPO is part of treatment plan) to decrease irritation from topical meds first few weeks
- ▶ Keep cleansing wipes by the bedside
- ▶ For retinoid irritation, apply emollient 1<sup>st</sup>
  - ▶ Does not affect efficacy\*
- ▶ Neck, chest, back acne → *Sulfate free shampoo* (sodium laureth sulfate and sodium lauryl sulfate are comedogenic).
- ▶ If concurrent seb derm → sulfate free anti-dandruff shampoos
- ▶ Neutrogena T-Sal Therapeutic Shampoo
- ▶ Regenpure DR Dandruff shampoo
- ▶ L’Oreal EverFresh Anti-Dandruff shampoo
- ▶ Free and Clear Medicated Anti-dandruff shampoo
- ▶ Makeup and other products are important!
  - ▶ Ask about scrubs, astringents, masks, toners, and all makeup products
  - ▶ “No-no” products:
    - ▶ *Scrubbing bead cleansers*
    - ▶ *Cold cream cleansers*
    - ▶ *Covergirl and MAC facial cosmetics*



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- ▶ *Cocoa butter*
- ▶ *Oil-cleansing methods (most often done with coconut oil)*
- ▶ Give patient a list of cleansers, moisturizers, and sunscreens that are non-comedogenic
  - ▶ Favorite drug store makeup recommendations:
    - ▶ L'Oreal True Match Line
    - ▶ Revlon Colorstay Oil-Free Foundation
  - ▶ If pt wants department store brands, I like the Sephora.com website:

#### Hidradenitis:

- ▶ **Smoking cessation**
  - ▶ Refer to your state's **quit line**. If you don't know, give 1-800-QUIT-NOW – Operated by NCI and connects caller to state's tobacco quit line
  - ▶ Involve PCP
- ▶ Weight loss, if patient is overweight or obese
  - ▶ Consider local registered weight loss clinics or other local resources
  - ▶ Basic dietary assessment
- ▶ Turmeric at a dose of **500 mg BID** (app \$15/month for Nature's Way)
- ▶ Consider vitamin D and probiotics, depending on patient's willingness, financial constraints
- ▶ Consider bleach baths as inexpensive antiseptics. Alternatively, BPO wash (PanOxyl 4% or 10%)

#### My anti-inflammatory protocol (outside of workup and prescription treatment)

- ▶ Consider role of Vitamin D, vitamin D3 supplementation
- ▶ Consider use of turmeric and probiotic supplementation
- ▶ Address obesity and dietary considerations
- ▶ Address smoking
- ▶ Address mood
- ▶ Appropriate referrals and involvement of PCP

#### Seb Derm:

##### 3-step method:

- ▶ *Wash hair* with regular shampoo
- ▶ *Treat scalp* with medicated shampoo (I call it a scalp treatment)
- ▶ *Condition hair* with conditioner
- ▶ If they have keratin-treated hair and cannot use most dandruff shampoos, I recommend Nioxin Scalp Recovery Moisturizing Conditioner (0.5% pyrithione zinc)
  - ▶ Soothing Serum – 0.1% pyrithione zinc
  - ▶ HS Clinical Solutions Leave-on Treatment – 0.1% pyrithione zinc

#### Bleach Baths/wipes:

- ▶ Antiseptics in HS, chronically colonized ulcers (PG, calciphylaxis)
- ▶ ½ cup of common liquid bleach (such as Clorox) into full tub or ¼ cup into half tub
- ▶ Once to twice a week
- ▶ For baby tubs, 1 teaspoon per gallon of water



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- ▶ To make wipes, 1 teaspoon in gallon of water and soak washcloth/gauze in this solution and apply to affected area or spray with spray bottle
- ▶ Alternatively, can consider CLn products (8 oz \$40)

Bubble Podz for atopic dermatitis

- ▶ 7% colloidal oatmeal, so must watch for ACD to active ingredient
- ▶ Can be soothing as well as provides AD kids to still have bubble baths!

Water wipes as gentle wipes for babies, kids, and anyone really

Large and shiny pores: can try OTC options of Biore Pore Stripes, OC8 Mattifying Gel, and Effaclar Mat

**Triple Paste is my favorite barrier ointment for diaper dermatitis**

**Dry lips from isotretinoin: Dr. Dan's cortibalm OR**

*Make their own balm with 1% HC ointment (\$5) in a lip pot container (\$5 for pack of 50) with aquaphor (\$5) = \$15 for a large supply that will last entire course*

**Duoderm:** Ulcers (not too exudative)

- ▶ Shave biopsy, shave removal and EDC wound coverage
- ▶ Biopsy sites that are hard to reach
- ▶ Prurigo excoriations
- ▶ Available on Amazon!
  - ▶ Extra thin on Amazon is \$23 for box of 10
  - ▶ CGF is \$15 for box of 5

**Zeasorb AF** For maintenance of tinea cruris, tinea pedis

**Zeasorb Excess Moisture** For maintenance of intertrigo

**Fresh Balls/Fresh Breast** intertrigo maintenance

**Baby Foot Peel:** Lactic, salicylic and glycolic acids; very exfoliating; skin peels 5-7 days after application

Caution regarding possible irritation

**OTC products for Acne with hyperpigmentation (non HQ based):**

The Ordinary Azeleic Acid 10%, The Ordinary 7% glycolic acid, Alpha Hydrox 10% glycolic acid, 12% glycolic acid body lotion

Anti-aging options from The Ordinary: Resveratrol 3% with Ferulic Acid 3%

Niacinamide 10% with Zinc 1% (may also be helpful for acne)

Pearls from TBCD FB group members

- ▶ OTC Rhofade™ (oxymetazoline hydrochloride) substitution: full bottle of Afrin nasal spray + ½ bottle of Cerave facial lotion PM for rosacea (Dr. Tina Kinsley)
- ▶ Cerave SA Lotion or Gold Bond Ultimate Lotion for Grover's Disease (Dr. Toni Lewis McCullough and Dr. Brad Bowden)
- ▶ DerMend Alpha and Beta Hydroxy Therapy for Grover's Disease (Dr. Brad Bowden and Dr. Heather Downes)
- ▶ Arnica gel and pills one week prior to fillers (Dr. Patty Lucey)
- ▶ Safety pin for milia: sterilize and sharp point to pierce, circle to apply pressure and extract (Dr. Carrie Gick Davis)



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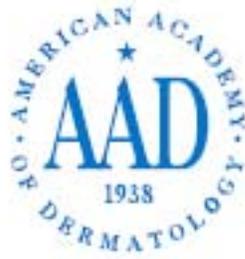
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- ▶ Dr. Toni Lewis McCullough: Aluminum chloride soft stick Anti-perspirant:
  - ▶ Minor bleeding after shaving/minor trauma
  - ▶ Irritant folliculitis post shaving bikini area. Advises Aveeno shave gel during shaving, followed by soft stick antiperspirant over freshly shaven area
  - ▶ Intertrigo prevention. Others include Argo cornstarch, Zeasorb powder, Fresh Balls/Fresh Breast
- ▶ Irritant folliculitis post facial shaving: Aveeno shave gel followed by 10% sodium sulfacetamide lotion (Dr. Toni Lewis McCullough). BPO also works, but bleaching effect beware!
- ▶ Sweaty, smelly feet: Wash feet with Lever 2000, then Dr. Scholls Odor X spray followed by Odor X powder after shower ((Dr. Toni Lewis McCullough)
- ▶ Can add clindamycin gel to above (several members)
- ▶ Pambra's and Wick'em liners for intertrigo maintenance (Dr. Angela Clay)
- ▶ Homemade Vaseline gauze: Viva paper towels smothered in Vaseline petroleum jelly (Dr. Adriane Boyle)
- ▶ Ivermectin Horse Paste 1.87% mixed 1:1 or 1:2 with OTC moisturizer for pap/pust rosacea (Dr. Scott Thomas, Dr. Toni Lewis McCollough)
- ▶ O'Keeffe's Working Hands cream for dry hands/feet
- ▶ Crazy Glue with brush tip for fingertip fissures (Dr. Jason Miller, Dr. Emily Liga Kazaks Prosis)
- ▶ Good body of evidence → honey has **numerous** antimicrobial properties, particularly Manuka Honey
  - ▶ produced in New Zealand from the nectar of the *Leptospermum Scopartum* shrub
  - ▶ unique component, methylglyoxal, acts as an additional antibacterial agent
  - ▶ ManukaGuard (New Zealand) and Medihoney (a subsidiary of Derma Sciences, Princeton, NJ) – two companies that collect, pool, filter, and sterilize Manuka honey for clinical use
- ▶ [Honey-based templates in Wound Healing and Tissue Engineering \(Minden-Birkenmaier BA, Bowlin GL. Honey-Based Templates in Wound Healing and Tissue Engineering. \*Bioengineering\*. 2018;5\(2\):46.\)](#)
- ▶ Numerous dermatologists starting to use for wound infections and chronic wounds, but potential for tissue engineering is imminent (cryogels, hydrogels, tissue templates).

### Nicotinamide (Niacinamide)

- ▶ Water-soluble amide isotype of vitamin B3
- ▶ Anti-inflammatory (PARP-1, MHC II, IL1, IL12, TNF-alpha, etc)
- ▶ Use in NMSC and actinic damage prevention – Dr. Larson
- ▶ Anti-inflammatory benefit (acne, rosacea, bullous disease)
- ▶ Treatment of hyperpigmentation (Melasma, PIH)
- ▶ Potential benefit with barrier repair (dry skin and atopic dermatitis)
- ▶ Seborrheic keratoses flatten out! (Dr. Annette Headley, Dr. Shalini Bahl Annamraju)
- ▶ **500 mg twice daily**

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