

We encourage you to invite your colleagues and patients to get active in the American Acne & Rosacea Society! Visit www.acneandrosacea.org to become member and donate now on www.acneandrosacea.org/ donate to continue to see a change in acne and rosacea.

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Special AARS Announcement

Congratulations to the 2017 AARS Research Scholar Awardee!

<https://acneandrosacea.org/updates/congratulations-to-the-2017-aars-research-scholar-awardee>

AARS Research Scholar Awardee: William H. McCoy, IV, MD, PhD, Washington University Department of Medicine, Division of Dermatology, St. Louis, MO

Project Title: The Skin Microbiome Response to Systemic Isotretinoin Acne Therapy

Summary: This funding helps to extend work previously supported by the AARS to include whole-genome sequencing of *P. acnes* isolates to assess changes in metabolic pathways associated with changes in the human microenvironment during isotretinoin therapy.

Abstract: Acne vulgaris is an extremely common disease with numerous disease associations, but it is unclear what causes the normal pilosebaceous unit to turn into an inflamed acne lesion. The bacterium *Propionibacterium acnes* normally lives within the pilosebaceous unit, yet many studies over the last 50 years support a role for this organism in acne pathogenesis. While the specific role of *P. acnes* is unclear, antimicrobial therapy is a mainstay of acne treatment and has led to the emergence of antibiotic resistant skin flora. Recent genomic investigations have identified multiple *P. acnes* features associated with acne, but the response of these *P. acnes* features to successful acne treatment is unknown. Previous bacteriological work has demonstrated that the systemic medication isotretinoin reduces *P. acnes* even though it is not an antibiotic. We hypothesized that acne treatment with isotretinoin would shift the community of organisms on acne skin (acne microbiome) to resemble the community of organisms on normal skin (normal microbiome). Our investigation reproduced and greatly extends prior observations of *P. acnes* population changes with isotretinoin treatment. Our analysis also suggests that post-isotretinoin acne requiring further oral therapy (antibiotics or isotretinoin) may be due to specific *P. acnes* strains. Whole-genome sequencing and metabolomic investigations of these *P. acnes* strains are currently ongoing. The recent awarding of an American Acne and Rosacea Society Research Scholar Award now provides the means to expand this pilot project to include further next-generation sequencing assessments of acne and isotretinoin treatment associations. Specifically, we will examine the variation in the non-bacterial skin microbiome with isotretinoin treatment, the selection of *P. acnes* genomic elements during isotretinoin treatment, and the change in microbial biochemical pathways with changes in the host environment during isotretinoin treatment. These studies will provide the genotype foundation for ongoing *P. acnes* metabolomics work in our laboratory to allow for correlations between microbial genotype and metabolic phenotypes. This work will help to direct future microbiota-directed acne therapy.

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Industry News

‘CLEAR’ (IGA 0) Rosacea Patients Experience a Delayed Time to Relapse. Galderma press release. September 16, 2017. <https://www.galderma.com/Media/Press-releases/articleType/ArticleView/articleId/128/CLEAR-IGA-0-Rosacea-Patients-Experience-a-Delayed-Time-to-Relapse>

Today, the results of a pooled analysis of four Galderma-sponsored studies evaluating the use of topical therapies for the treatment of inflammatory papules and pustules of rosacea were presented at the 26th European Academy of Dermatology and Venereology Congress in Geneva, Switzerland. The success of rosacea treatment is usually defined as a score of 1 (‘almost clear’) or 0 (‘clear’) on the 5-point Investigator Global Assessment (IGA) scale. The new analysis reports that rosacea patients who achieve ‘clear’ (IGA 0), not only experience a more complete reduction in inflammatory lesions compared with patients who achieve ‘almost clear’ (IGA 1), but also an extended time to relapse that is associated with improved quality of life. The analysis, titled ‘Defining treatment success in rosacea as ‘clear’ may provide multiple patient benefits: Results of a pooled analysis,’ is the first-of-its-kind to report on the differences in patient-reported outcomes, quality of life, and time to relapse associated with ‘clear’ (IGA 0) and ‘almost clear’ (IGA 1) patients. “Rosacea is a chronic dermatological disease with remissions and exacerbations. Improving treatment options with earlier effective treatment and longer remission times may not only control symptoms, but also delay progression of the disease,” commented study author Guy Webster, Thomas Jefferson University, Philadelphia, PA. “This first-of-its-kind analysis shows that both remission time and quality of life are improved if patients achieve an endpoint of ‘clear’ (IGA 0), compared with patients who achieve ‘almost clear’ (IGA 1).” In the analysis, patients who achieved ‘clear’ (IGA 0) were associated with a delayed time to relapse of more than 5 months, compared with patients who achieved ‘almost clear’ (IGA 1). At 8-month follow-up, twice as many patients who had achieved ‘clear’ (IGA 0) remained free of treatment compared with patients who had achieved ‘almost clear’ (IGA 1) (54% vs. 23%). The authors stated that this delayed time to relapse may contribute to improved quality of life and satisfaction with treatment, both in the short term and over the long term. In addition, one-third more ‘clear’ (IGA 0) patients than ‘almost clear’ (IGA 1) patients (59% vs. 44%) reported a clinically meaningful difference (≥4 points) in Dermatology Life Quality Index score.

New Medical Research

Glucocorticoids and toll-like receptor 2 cooperatively induce acute-phase serum amyloid A. Su Q, Weindl G. Pharmacol Res. 2017 Sep 20. pii: S1043-6618(17)30549-2. doi: 10.1016/j.phrs.2017.09.012. [Epub ahead of print] <https://www.ncbi.nlm.nih.gov/pubmed/28941781>

Serum amyloid A (SAA) is a highly conserved acute-phase protein and extrahepatic produced SAA1/2 contributes to cutaneous inflammation. Prolonged systemic or topical treatment with glucocorticoids can provoke skin diseases such as steroid-induced acne. Glucocorticoids increase Toll-like receptor 2 (TLR2) expression, however, an inflammatory mediator linked to this side effect remains elusive. We report that TLR2 agonists in combination with dexamethasone substantially increase SAA expression and production in human keratinocytes and epithelial cells. Dexamethasone-mediated SAA1 induction depends on the glucocorticoid receptor (GR). In response to *Propionibacterium acnes*, TLR2-activated signal transducer and activator of transcription 3 (STAT3) and nuclear factor κB (NF-κB) signaling pathways are critically involved in dexamethasone-induced SAA1 production. The

formation of transcription factor complexes between GR or p300 and phospho-STAT3, was confirmed by co-immunoprecipitation in dexamethasone- and *P. acnes*-stimulated keratinocytes. Furthermore, dexamethasone and *P. acnes*-increased TLR2 and mitogen-activated protein kinase phosphatase-1 (MKP-1) contribute to induction of SAA1 and 2. Likewise, tumor necrosis factor (TNF) induces SAA1 in combination with dexamethasone. GR, transcription factors STAT3 and NF- κ B, but not MKP-1, mediate TNF- and dexamethasone-induced SAA1. Conclusively, we provide evidence that glucocorticoids promote SAA1 production under infectious and sterile inflammatory conditions which may provide significant insights to the pathogenesis of steroid-induced acne.

Efficacy and safety of tazarotene 0.1% plus clindamycin 1% gel versus adapalene 0.1% plus clindamycin 1% gel in facial acne vulgaris: a randomized, controlled clinical trial. Maiti R, Sirka CS, Ashique Rahman MA, et al. Clin Drug Investig. 2017 Sep 14. doi: 10.1007/s40261-017-0568-2. [Epub ahead of print] <https://www.ncbi.nlm.nih.gov/pubmed/28913735>

BACKGROUND: Acne vulgaris is a multifactorial disorder which is ideally treated with combination therapy with topical retinoids and antibiotics. **OBJECTIVES:** The present study was conducted to compare the efficacy and safety of tazarotene plus clindamycin against adapalene plus clindamycin in facial acne vulgaris. **METHODS:** This study is a randomized, open-label, parallel design clinical trial conducted on 60 patients with facial acne at the outpatient dermatology department in a tertiary healthcare center. The main outcome measures were change in the acne lesion count, Investigator's Static Global Assessment (ISGA) score, Global Acne Grading System (GAGS) score, and Acne-Specific Quality of Life Questionnaire (Acne-QoL) at the end of 4 weeks of therapy. After randomization one group (n = 30) received tazarotene 0.1% plus clindamycin 1% gel and another group (n = 30) received adapalene 0.1% plus clindamycin 1% gel for 1 month. At follow-up, all the parameter were reassessed. **RESULT:** In both treatment regimens the total number of facial acne lesions decreased significantly. The difference in the change in the total count between the two combination regimens was also significant [6.51, 95% confidence interval (CI) 1.91-11.09, p = 0.007]. A $\geq 50\%$ reduction in the total lesion count from the baseline levels was achieved by 71% of patients in the tazarotene plus clindamycin group and 22% of patients in the adapalene plus clindamycin group (p = 0.0012). The difference in the change of inflammatory (p = 0.017) and non-inflammatory (p = 0.039) lesion counts in the tazarotene plus clindamycin group were significantly higher than the adapalene plus clindamycin group. The difference in change of the GAGS score was also significantly higher in the tazarotene plus clindamycin group (p = 0.003). The ISGA score improved in 17 patients in the tazarotene plus clindamycin group versus nine patients in the adapalene plus clindamycin group (p = 0.04). The change of total quality-of-life score was found to be significantly (p = 0.027) higher in the tazarotene plus clindamycin group. **CONCLUSIONS:** Both treatment regimens were efficacious, but tazarotene plus clindamycin was found to be superior to adapalene plus clindamycin. The tolerability profile of both regimens was comparable. **TRIAL REGISTRATION:** ClinicalTrials.gov Identifier: NCT02721173.

The follicular skin microbiome in patients with hidradenitis suppurativa and healthy controls. Ring HC, Thorsen J, Saunte DM, Lilje B, et al. JAMA Dermatol. 2017 Sep 1;153(9):897-905. doi: 10.1001/jamadermatol.2017.0904. <https://www.ncbi.nlm.nih.gov/pubmed/?term=The+Follicular+Skin+Microbiome+in+Patients+With+Hidradenitis+Suppurativa+and+Healthy+Controls>

IMPORTANCE: Although the pathogenesis of hidradenitis suppurativa (HS) remains enigmatic, several factors point

to potential involvement of the cutaneous microbiome. Insight into the cutaneous microbiome in HS using next-generation sequencing may provide novel data on the microbiological diversity of the skin. **OBJECTIVE:** To investigate the follicular skin microbiome in patients with HS and in healthy controls. **DESIGN, SETTING, AND PARTICIPANTS:** This case-control study obtained punch biopsy specimens from patients with HS (lesional and nonlesional) and healthy controls between October 1, 2014, and August 1, 2016. Data were analyzed from March to November 2016. Patients with HS were recruited from the Department of Dermatology, Zealand University Hospital, Roskilde, Denmark. Biopsy specimens were analyzed at the Department of Microbiology and Infection Control, Statens Serum Institut, Copenhagen, Denmark. None of the participants received any antibiotics (systemic or topical therapy) within 1 month before the study. In patients with HS, biopsy specimens were obtained from lesional skin (axilla or groin) and nonlesional skin. Only nodules containing at least 1 visible hair follicle were biopsied. Biopsy specimens from healthy controls were obtained from the axilla only. **MAIN OUTCOMES AND MEASURES:** The different microbiomes were investigated using next-generation sequencing targeting 16S and 18S ribosomal RNA. **RESULTS:** The skin microbiome was characterized in 30 patients with HS (mean [SD] age, 46.9 [14.0] years; 19 [63% female]) and 24 healthy controls (mean [SD] age, 32.2 [12.0] years; 13 [54% female]). The next-generation sequencing data provided a previously unreported (to our knowledge) characterization of the skin microbiome in HS. The study demonstrated that the microbiome in HS differs significantly from that in healthy controls in lesional and nonlesional skin. Overall, the following 5 microbiome types were identified: *Corynebacterium* species (type I), *Acinetobacter* and *Moraxella* species (type II), *Staphylococcus epidermidis* (type III), *Porphyromonas* and *Peptoniphilus* species (type IV), and *Propionibacterium acnes* (type V). In lesional skin, microbiome types consisted predominantly of type I or type IV. Microbiome type IV was not detected in healthy controls. Several taxa, including *Propionibacterium*, showed a significantly higher relative abundance in healthy controls vs HS skin, indicating that *Propionibacterium* may be part of the pathogenesis in HS. **CONCLUSIONS AND RELEVANCE:** The study findings suggest a link between a dysbiotic cutaneous microbiome and HS.

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Treatment of rosacea with concomitant use of topical ivermectin 1% cream and brimonidine 0.33% gel: a randomized, vehicle-controlled study. Gold LS, Papp K, Lynde C, et al. *J Drugs Dermatol.* 2017 Sep 1;16(9):909-916. <https://www.ncbi.nlm.nih.gov/pubmed/28915286>

BACKGROUND: There is currently a lack of data on the simultaneous treatment of different features of rosacea. Individually, ivermectin 1% (IVM) cream and brimonidine 0.33% (BR) gel have demonstrated efficacy on inflammatory lesions and persistent erythema, respectively. **OBJECTIVE:** To evaluate the efficacy, safety, patient satisfaction, and optimal timing of administration of IVM associated with BR (IVM+BR) versus their vehicles in rosacea (investigator global assessment [IGA] ≥ 3). **METHODS:** Multicenter, randomized, double-blind study including subjects with rosacea characterized by moderate to severe persistent erythema and inflammatory lesions. The active treatment group included the IVM+BR/12 weeks subgroup (once-daily BR and once-daily IVM for 12 weeks), and the IVM+BR/8 weeks subgroup (once-daily BR vehicle for 4 weeks followed by once-daily BR for the remaining 8 weeks and once-daily IVM for 12 weeks). The vehicle group received once-daily BR vehicle and once-daily IVM vehicle for 12 weeks. **RESULTS:** The association showed superior efficacy (IGA success [clear/almost clear]) for erythema and inflammatory lesions in the total active group (combined active subgroups) compared to vehicle (55.8% vs. 36.8%, $P=0.007$) at week 12. The success rate increased from 32.7% to 61.2% at hour 0 and hour 3, respectively, in the IVM+BR/12 weeks subgroup, and from 28.3% to 50% in the IVM+BR/8 weeks subgroup. Reductions in erythema and inflammatory lesion counts confirmed the additive effect of BR to IVM treatment.

Subjects reported greater improvement in the active subgroups than in the vehicle group, and similar rates for facial appearance satisfaction after the first 4 weeks of treatment in both active subgroups. All groups showed similar tolerability profiles. **CONCLUSION:** Concomitant administration of IVM cream with BR gel demonstrated good efficacy and safety, endorsing the comprehensive approach to this complex disease. Early introduction of BR, along with a complete daily skin care regimen may accelerate treatment success without impairing tolerability.

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Canakinumab for severe hidradenitis suppurativa, preliminary experience in 2 cases. Houriet C, Seyed Jafari SM, Thomi R, et al. *JAMA Dermatol.* Published online August 30, 2017. doi:10.1001/jamadermatol.2017.2392. <http://jamanetwork.com/journals/jamadermatology/article-abstract/2650741>

Hidradenitis suppurativa is one of the most distressing conditions in dermatology with a remarkable negative effect on patients' quality of life. Despite recent advances, there is still a great unmet need for effective long-term treatments for moderate and severe forms. Increased levels of cytokines associated with innate immunity, such as interleukin [IL]-1 β , have been found in hidradenitis suppurativa skin samples. Canakinumab is a human IgGk monoclonal antibody targeting IL-1 β , and it modulates multiple proinflammatory and anti-inflammatory mediators. Therefore, canakinumab might represent an alternative treatment for hidradenitis suppurativa. We describe the efficacy of canakinumab in 2 patients with severe hidradenitis suppurativa (Hurley clinical stage III) who had poor response to standard treatment regimens.

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An ecofriendly green liquid chromatographic method for simultaneous determination of nicotinamide and clindamycin phosphate in pharmaceutical gel for acne treatment. Ibrahim F, El-Deen AK, El Abass SA, Shimizu K. *J Food Drug Anal.* 2017 Jul;25(3):741-747. doi: 10.1016/j.jfda.2016.09.009. Epub 2016 Dec 1. <https://www.ncbi.nlm.nih.gov/pubmed/28911660>

A new green micellar liquid chromatographic method was developed and validated for the quantitative estimation of nicotinamide (NICO) and clindamycin phosphate (CLD) in bulk and pharmaceutical gel formulation. The analytes are well resolved in less than 6.0 minutes using micellar mobile phase consisting of 0.10M sodium dodecyl sulfate (SDS), 0.3% triethylamine, and 10% 2-propanol in 0.02M orthophosphoric acid at pH 3.0, running through an Eclipse XDB-C8 column (150 mm \times 4.6 mm, 5 μ m particle size) with flow rate 1.0 mL/min. The effluent was monitored with diode array detection at 210 nm. The retention times of NICO and CLD were 3.8 minutes and 5.6 minutes, respectively. The method was validated according to the International Conference on Harmonisation (ICH) guidelines in terms of linearity, limit of detection, limit of quantification, accuracy, precision, robustness, and specificity to prove its reliability. Linear correlation was achieved by plotting the peak area of each drug against its concentration. It was found to be rectilinear in the ranges of 1.0-40.0 μ g/mL and 0.5-15.0 μ g/mL with limits of detection of 0.06 μ g/mL and 0.03 μ g/mL and limits of quantification of 0.19 μ g/mL and 0.09 μ g/mL for NICO and CLD, respectively. The method was successfully implemented for the simultaneous determination of the analytes in their bulk powder and combined gel formulation with high % recoveries. The ease of sample treatment facilitates and greatly expedites the treatment with reduced cost and improved accuracy of the procedure.

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Clinical Reviews

Help-seeking behaviours, opportunistic treatment and psychological implications of adolescent acne: cross-sectional studies in schools and hospital outpatient departments in the UK. Desai KP, Martyn-Simmons C, Viner R, Segal T. *BMJ Open*. 2017 Sep 21;7(9):e016964. doi: 10.1136/bmjopen-2017-016964. <http://bmjopen.bmj.com/content/7/9/e016964.long>

BACKGROUND: Acne vulgaris (acne) is a common adolescent skin condition. It is associated with negative psychological impacts and sufferers do not easily seek help, hence is undertreated. **OBJECTIVES:** We investigated the self-reported prevalence, severity and psychological sequelae of acne, together with assessing help-seeking behaviour and its barriers, in separate school and hospital samples. We explored opportunistic treatment by paediatricians. **METHODS:** Self-reported survey with participants drawn from: (1) 120 adolescents aged 13-18 in a London tertiary paediatric outpatient department and (2) 482 adolescents from two London schools, aged 11-18. Adolescents confidentially and anonymously completed a questionnaire (paper or online) and those with acne completed the Cardiff Acne Disability Index (CADI) questionnaire. **OUTCOME MEASURES:** To explore if acne is being addressed opportunistically in outpatient appointments and the behaviours associated with seeking help and psychological implications of acne. **RESULTS:** Acne prevalence was reported as 58.3% in the clinic and 42.3% in schools, with 34.3% and 20.6% of participants having moderate acne (MA) or severe acne (SA), respectively. The correlation between acne severity and CADI was significant (regression coefficient=4.86, $p<0.005$ (MA) and 9.08, $p<0.005$ (SA) in the hospital; 1.92, $p<0.001$ (MA) and 7.41, $p<0.005$ (SA) in schools). Severity of acne was associated with increased likelihood of seeing a doctor in both samples (OR=8.95, 2.79-28.70 (MA) in the clinic and 1.31, 1.30-2.90 (MA) and 3.89, 0.66-22.98 (SA) in the community). Barriers to help seeking included

embarrassment and believing doctors were unapproachable. Doctors addressed acne opportunistically in 2.9% of the sample, although 16.7% of those with MA and SA wished their doctor had raised it. **CONCLUSION:** Acne is common and has negative psychological implications, correlating with severity. Young people often forego seeking help and hospital clinicians rarely address acne opportunistically. Further work is needed to investigate how to reduce barriers to help seeking for acne.

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p53: key conductor of all anti-acne therapies. Melnik BC. *J Transl Med*. 2017 Sep 19;15(1):195. doi: 10.1186/s12967-017-1297-2. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5606086/>

This review based on translational research predicts that the transcription factor p53 is the key effector of all anti-acne therapies. All-trans retinoic acid (ATRA) and isotretinoin (13-cis retinoic acid) enhance p53 expression. Tetracyclines and macrolides via inhibiting p450 enzymes attenuate ATRA degradation, thereby increase p53. Benzoyl peroxide and hydrogen peroxide elicit oxidative stress, which upregulates p53. Azelaic acid leads to mitochondrial damage associated with increased release of reactive oxygen species inducing p53. p53 inhibits the expression of androgen receptor and IGF-1 receptor, and induces the expression of IGF binding protein 3. p53 induces FoxO1, FoxO3, p21 and sestrin 1, sestrin 2, and tumour necrosis factor-related apoptosis-inducing ligand (TRAIL), the key inducer of isotretinoin-mediated sebocyte apoptosis explaining isotretinoin's sebum-suppressive effect. Anti-androgens attenuate the expression of miRNA-125b, a key negative regulator of p53. It can thus be concluded that all anti-acne therapies have a common mode of action, i.e., upregulation of the guardian of the

genome p53. Immortalized p53-inactivated sebocyte cultures are unfortunate models for studying acne pathogenesis and treatment.

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Oxymetazoline hydrochloride cream for facial erythema associated with rosacea. Patel NU, Shukla S, Zaki J, Feldman SR. *Expert Rev Clin Pharmacol.* 2017 Aug 24;1-6. doi: 10.1080/17512433.2017.1370370. [Epub ahead of print] <https://www.ncbi.nlm.nih.gov/pubmed/28837365>

Introduction: Rosacea is a chronic skin condition characterized by transient and persistent erythema of the central face. The symptom of persistent erythema can be particularly frustrating for both patients and physicians as it is difficult to treat. Areas covered: Current treatment options for the treatment of rosacea include metronidazole, azelaic acid, sodium sulfacetamide-sulfur, and brimonidine. Until recently, brimonidine gel was the only option approved specifically for the treatment of facial erythema. However, oxymetazoline hydrochloride 1% cream is a newly FDA approved topical medication for adult rosacea patients. A primarily alpha-1a agonist, oxymetazoline hydrochloride (HCl) is thought to diminish erythema through vasoconstriction. Our paper seeks to evaluate evidence for topical oxymetazoline HCl with respect to its efficacy and safety for its approved indication of treating the persistent erythema associated with rosacea. Expert commentary: While assessment of available clinical trial data indicates that the medication is as effective as other available treatment for controlling rosacea-associated erythema with minimal risk of adverse effects, studies of long-term duration and direct comparison will be necessary to establish its place in treatment guidelines and clinical practice. As further evidence becomes available, the real-world clinical potential of topical oxymetazoline cream will become clearer.

Teens and technology transforming acne treatment. Ettl DL, Lamanno LR, Neyra SA, et al. *Perm J.* Aug 2017;21. doi: 10.7812/TPP/16-192. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5593518/>

INTRODUCTION: Although the Internet contains many health Web sites with valid information, it also contains sites with false information. OBJECTIVE: To learn whether high school students searching health care information believe they are using evidence-based sites and to understand their topics of interest, frequently navigated sites, and trust/confidence in the credibility of information found. DESIGN: Cross-sectional. MAIN OUTCOME MEASURES: Students at a private high school answered an anonymous survey inquiring about their belief that they were using evidence-based sites, topics of interest, search engines of choice, and their trust in information obtained. Descriptive statistics and multivariate analysis of variance were used to compare trends across grade levels. RESULTS: Of 705 students enrolled, 24.7% were absent or declined to participate. For the remaining students, 497 completed the surveys, representing a response rate of 70.5% (497/705) and a participation rate of 93.6% (497/531). Overall, 82% of students communicated that they believed they were using evidence-based sources when searching for health information ($p < 0.0006$). Findings showed that 42% searched general health information, and 43% investigated specific medical conditions; topics related to skin and acne were researched significantly more often ($p < 0.05$). Overall, most students (80%) reported using Google as their number 1 search engine ($p < 0.004$), 38% reported using WebMD Search ($p < 0.0002$), and 50% of students used Wikipedia (not significant). CONCLUSION: Most students trust health information they learn from the Internet. We found it chilling that less than half of students obtained their information from a Web site with health care professionals' oversight.

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Laser treatment of medical skin disease in women. LaRosa C, Chiaravalloti A, Jinna S, et al. *Int J Womens Dermatol.* 2017 Jul 21;3(3):131-139. doi: 10.1016/j.ijwd.2017.05.002. eCollection 2017 Sep. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5555278/>

Laser treatment is a relatively new and increasingly popular modality for the treatment of many dermatologic conditions. A number of conditions that predominantly occur in women and that have a paucity of effective treatments include rosacea, connective tissue disease, melasma, nevus of Ota, lichen sclerosus (LS), notalgia parasthetica and macular amyloidosis, and syringomas. Laser therapy is an important option for the treatment of patients with these conditions. This article will review the body of literature that exists for the laser treatment of women with these medical conditions.

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Acne prevalence and associations with lifestyle: a cross-sectional online survey of adolescents/young adults in 7 European countries. Wolkenstein P, Machovcová A, Szebietowski JC, et al. *J Eur Acad Dermatol Venereol.* 2017 Jul 14. doi: 10.1111/jdv.14475. [Epub ahead of print] http://onlinelibrary.wiley.com/doi/10.1111/jdv.14475/epdf?referrer_access_token=-l52r9jfiCJaM4Q8ZSypota6bR2k8jH0KrdpFOxC66UsvDszhtdls-kZxRx420uFpaeljz8FGpcAWU9jhQjDVdLkOBEP-R7DXGfrfegYab1v2n-xJ77QtvA1cizsPRuJEXDAOongS_d0aFPeezP2fYttO3G6QB_e3qUfTzQARWzdnjGMbhb83ZSKQjcLXRkC1Xo34Fx_eqnNznPqW7jtgOOrlyqMjBv9cuprb7s1_bfo7movmMzQ-vrE8bDdmwm77zDw0AIEgg-XOQ8aFmy5e0VeOcMysfKjPmLkSHYz_Nh3bx6IOB1nlAef6j056EHW7CXtO3hzrqEigrYyilo7kQsQ3XhHv9BAeelHjv_nqO0wti-VUoGS-YZ9mUimnfsX5elnr7LYBSCF_8orQFtCCw%3D%3D

BACKGROUND: Although acne vulgaris is a common skin disorder, limited epidemiological data exist specifically for European populations. **OBJECTIVE:** To determine the prevalence of self-reported acne among young people in Europe and evaluate the effect of lifestyle on acne. **METHODS:** We conducted a cross-sectional population-based online survey in representative samples of individuals aged 15-24 years in Belgium, Czech and Slovak Republics, France, Italy, Poland and Spain (n = 10 521), identified by a quota sampling method based on age, geographic location and socio-professional category. **RESULTS:** The overall adjusted prevalence of self-reported acne was 57.8% (95% confidence interval 56.9% to 58.7%). The rates per country ranged from 42.2% in Poland to 73.5% in the Czech and Slovak Republics. The prevalence of acne was highest at age 15-17 years and decreased with age. On multivariate analysis, a history of maternal or paternal acne was associated with an increased probability of having acne (odds ratio 3.077, 95% CI 2.743 to 3.451, and 2.700, 95% CI 2.391 to 3.049, respectively; both P < 0.0001), as was the consumption of chocolate (OR 1.276, 95% CI 1.094 to 1.488, for quartile 4 vs. quartile 1). Increasing age (OR 0.728, 95% CI 0.639 to 0.830 for age 21-24 years vs. 15-17 years) and smoking tobacco (OR 0.705, 95% CI 0.616 to 0.807) were associated with a reduced probability of acne. **CONCLUSION:** The overall prevalence of self-reported acne was high in adolescents/young adults in the European countries investigated. Heredity was the main risk factor for developing acne.

Patient Counseling/Communication

Few patients follow recommendation to use OTC benzoyl peroxide. By: Kari Oakes. Dermatology News. Publish date: September 22, 2017 http://www.mdedge.com/edermatologynews/article/147708/acne/few-patients-follow-recommendation-use-otc-benzoyl-peroxide?channel=171&utm_source=News_DERM_acne_092217_F&utm_medium=email&utm_content=Do%20patients%20follow%20OTC%20benzoyl%20peroxide%20recommendation?

FROM THE JOURNAL OF THE AMERICAN ACADEMY OF DERMATOLOGY: Although benzoyl peroxide is a foundation of acne treatment, many patients are not following physician recommendations for its use, and its over-the-counter (OTC) availability may actually be a hindrance to adherence. In a letter to the editor of the Journal of the American Academy of Dermatology, Andrea L. Zaenglein, MD, and Annie H. Huyler, of Penn State University, Hershey, reported the results of a telephone survey of 84 acne patients, aged 12-45 years. Fewer than a third (29%) recalled having received a recommendation for an OTC medication, and just 30% could recall that benzoyl peroxide (BP) was the recommended active ingredient (J Am Acad Dermatol. 2017 Oct;77[4]:763-4).

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Do you answer patient emails? By: Joseph S. Eastern, MD. Dermatology News. September 18, 2017 http://www.mdedge.com/edermatologynews/article/147386/business-medicine/do-you-answer-patient-emails?oc_slh=40f65945dd3fe49f313534e23f36701bff77271d67beb261329378bb42086fd9&channel=278&utm_source=News_DERM_eNL_092117_F&utm_medium=email&utm_content=Latest%20on%20dupilumab%20for%20atopic%20dermatitis

Recently I received a lengthy email from a woman who claimed to have once been a patient, though her name did not come up in my EHR system. She asked numerous questions about a self-diagnosed skin disorder. I was undecided on how to reply – or even whether to reply at all – so I queried several dozen dermatology colleagues around the country, as well as a few physician friends and acquaintances in other specialties. Responses varied all over the map – from “I never answer patient emails” to “What harm could it do, she’s better off getting correct answers from you than incorrect answers from some ‘advocacy’ web site” – and everything in between. I decided to look at what has been published on the subject. It turns out that as early as 1998, a group of investigators asked this same question and designed a study to address it (JAMA. 1998 Oct 21;280[15]:1333-5). Posing as a fictitious patient, they sent emails to random dermatologists describing an acute dermatological problem, tallied the responses they received, and followed up with a questionnaire to responders and nonresponders alike. As with my informal survey, the authors found what they termed “a striking lack of consensus” on how to deal with this situation: 50% responded to the fictitious patient’s email; of those, 31% refused to give advice without seeing the patient, but 59% offered a diagnosis, and a third of that group went on to provide specific advice about therapy. In response to the questionnaire, 28% said that they tended not to answer any patient emails, 24% said they usually replied with a standard message, and 24% said they answered each request individually. The authors concluded that “standards for physician response to unsolicited patient e-mail are needed.”

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