AAD Forum F406 Dermatology Teachers Exchange Group
Semiannual Meeting of the
DERMATOLOGY TEACHERS EXCHANGE GROUP
3:00 - 5:00 pm Sunday March 18, 2012
Convention Center Room 9, San Diego, CA, USA

Abstracts were vetted and scored by a committee comprised of Erik Stratman, Matt Zirwas, and Chito Cruz. Time allocation (7 vs. 5 min) correspond to abstract scores based on: (1) impact/significance; and (2) quality of evidence supporting conclusions. Presentors should comply with time allocation including technical difficulties and thus requested to load presentations with AV office prior to start of the forum.

3:00	Welcome and opening remarks	P Cruz

	Moderator	P Cruz

3:05 (7 min)	Dermatology residency criteria: A national program director survey. F Gorouhi, A Alikhan, A Rezaie, N Fazel. University of California Davis, Sacramento, CA, USA.
3:12 (5 min)	EXCHANGE

3:17 (7 min)	An evaluation of an online learning curriculum in a dermatology medical student clerkship. E Dybbro, S Cipriano, C Boscardin, K Shinkai, T Berger. University of California San Francisco, San Francisco, CA, USA.
3:24 (7 min)	Attitudes of patients about being seen by medical students in a dermatology clinic. I Day, G Jhangri, A Lin. University of Alberta, Edmonton, Alberta, CN.
3:31 (5 min)	EXCHANGE

	Moderator	E Stratman
3:36 (7 min)	Functional and perceived competency outcomes: An evaluation of the pedagogical approach to teaching skin cancer recognition. S Reddy, B Obayan, A Ashaye, A Beckford , A Gelle, A Garg. Boston University, Boston, MA, USA.	
3:43 (5 min)	Developing a new learning tool for dermatopathology. R Singh, D Elston, T Ferringer. Mt. Sinai, New York, NY; Ackerman Academy of Dermatopathology, New York, NY; Geisinger Medical Center, Danville, PA, USA.	
3:48 (5 min)	EXCHANGE	
3:53 (5 min)	Attitudes of US dermatology residents and faculty regarding interaction with pharmaceutical industry. E Linnell, V Deleo. St. Luke's Roosevelt, New York, NY, USA.	
3:58 (5 min)	Bridging dermatologists with patient advocacy groups for skin disease through smartphones. AS Kourosh, E Schoenberg, J Dejace, P Bergstresser University of Texas Southwestern, Dallas, TX, USA.	
4:03 (5 min)	EXCHANGE	
4:08 (5 min)	Preliminary data on the effectiveness of a resident-as-teacher program in dermatology. S Burgin, RA Vleugels, A Sullivan, L Newman. Beth Israel and Brigham, Boston, MA, USA.	
4:13 (5 min)	Teaching manual for educators in dermatology. C Garcia. University of Oklahoma, Oklahoma City, OK, USA.	
4:18 (3 min)	EXCHANGE	

4:21 (5 min) What refutes that diagnosis?: A five-step teachable approach to morphology rounds.
J Shaw.
University of Toronto, Toronto, Ontario, CN.

4:26 (5 min) Rash reconnaissance: An active learning tool for teaching clinical dermatology to medical students.
M Spraker.
Emory, Atlanta, GA, USA.

4:31 (3 min) EXCHANGE

4:34 (5 min) Dermatology knowledge at the end of medical school: Preferred teaching styles and effects of a new deermatology curriculum.
J Dunn, D Jensen, R Dellavalle, C Dunnick.
University of Colorado, Aurora, CO; Denver Veterans Affairs, Denver, CO, USA.

4:39 (5 min) Usage of and satisfaction with a dermatology Wiki website among medical students.
L Ellis, C Vogeler, C Dunnick, R Dellavalle.
University of Colorado, Aurora, CO; Thomas Jefferson University, Philadelphia, PA, USA.

4:44 (3 min) EXCHANGE

4:47 (5 min) A dermatoethics curriculum for residency implementation
S Fabbro, J Aultman, E Mostow.
Northeastern Ohio University, Rootstown, OH, USA

4:52 (5 min) The use of audience response systems in various settings in dermatology.
K Wanat, W James, M Rosenbach
University of Pennsylvania, Philadelphia, PA, USA

4:57 (3 min) EXCHANGE

5:00 Adjourn

Dermatology residency criteria: a national program director survey.

Gorouhi F, Fazel N
University of California Davis, Sacramento, CA, USA

Background: Dermatology residency programs are fairly diverse in their resident selection process. In this study, we investigated the importance of a 25 item dermatology residency selection criteria. This included an assessment of the overall program director (PD) perception with regards to completion of a fellowship (basic science or clinical) prior to residency training. Additionally, all possible correlations between PDs' attitude and the program's characteristics were investigated.

Methods: This study was an online cross-sectional survey. The questionnaire (17 items) was developed by searching PubMed and EMBASE. It was further refined by a brainstorming session and reviewed by 4 experts via email. Each PD received a unique link to the questionnaire accompanied by a $5 Starbucks coffee e-gift card as an incentive. Kolmogorov Smirnov test, Mann-Whitney test, Chi Square, Reliability test for the questionnaire, two-step clustering and K-means methods were used in the data analysis.

Results: Ninety-five out of 114 PDs (83.3%) responded to the survey. The top 5 criteria for dermatology residency application were as follows: Interview, Letters of recommendation, USMLE Step I Scores, Medical School Transcripts, and Rotation at the Institution. Our data showed that PDs deemed the completion of a clinical research fellowship more favorably than basic research fellowship. Additionally, publication in single or few related topics in dermatology was noted to be an important selection criterion.

Discussion: The top 5 residency selection criteria were comparable to the previous reports. Overall, the completion of a research fellowship is not perceived by PDs as a very important or fairly important criterion in the selection of residency applicants. Our data supports a need for initiation of a task force to develop practical recommendations for medical students interested in dermatology, given the highly competitive nature of this subspecialty.

An evaluation of an online learning curriculum in a dermatology medical student clerkship.

Dybbro E, Cipriano S, Boscardin C, Shinkai K, Berger TG
Department of Dermatology, University of California, San Francisco

Background: In 2007, the Medical Student Curriculum Workgroup was established by the American Academy of Dermatology (AAD) to develop a standardized online dermatology curriculum. 18 modules derived from this online curriculum were integrated into the 2-week introductory dermatology clerkship at UCSF.

Objective: Evaluation of the AAD online curriculum in the following key areas: knowledge acquisition, usability, and user satisfaction.

Methods: Senior medical students enrolled in the UCSF dermatology clerkship over a 6-month period were invited to participate in the study (n=51). Knowledge acquisition was tested through two matched 50-question exams that alternated as pre- and post-tests. Usability and user satisfaction were assessed via post-module surveys and an end of rotation evaluation.

Results: Student scores improved with an average pre-test score of 71.7% compared to an average post-test score of 91.3% ($p<.001$). Survey data indicated the curriculum modules as engaging, easy to navigate and an important component to the clerkship curriculum. 100% of students surveyed support the continuation of the online curriculum.

Discussion: The AAD curriculum was an effective component in the UCSF dermatology clerkship as evidenced by content mastery and student support.

Attitudes of patients about being seen by medical students in a dermatology clinic.

Isaiah Day[1], MD; Gian Jhangri[2], MSc; Andrew N Lin[1], MD, FRCPC
[1]Division of Dermatology and Cutaneous Science, [2]School of Public Health, University of Alberta, Edmonton, Canada

Introduction: This study identifies attitudes of patients about seeing medical students.

Methods: 200 consecutive patients over 18 years who attended general academic dermatology clinic completed a questionnaire.

Results: The majority felt comfortable, based on patient's age, gender, ethnicity, education, about seeing students (85.3%-95.7%), and having the student perform procedures with the dermatologist present (84.6%-100%), but only 41.4%-63.0% felt comfortable without the dermatologist present. Patients aged 18-30 and 31-40 years compared to older patients (41-60 and 61+ years) are more likely to want students of the same gender (28.2%, 31.8%, 7.1%, 13.6%, p=0.006). Non-Caucasian patients compared with Caucasian patients are more likely to want students of the same gender (31.4% vs. 13.0%, p=0.008), and slightly less felt comfortable seeing students (85.3% vs. 95.1%, p=0.035).

Conclusions: Younger patients (age 18-40) and non-Caucasian patients are more likely to want to be seen by students of the same gender (p=0.006 and 0.008, respectively), and slightly less percentages of non-Caucasian compare to Caucasian patients feel comfortable seeing students (85.3 vs. 95.1, p=0.035).

Functional and perceived competency outcomes: An evaluation of the pedagogical approach to teaching skin cancer recognition.

Busayo Obayan, MD, MPH, Shalini Reddy, BA, Ajibade Ashaye, MD, MPH, Angela Beckford, MD, MPH, Alan Geller, RN, MPH, and Amit Garg, MD
Boston University School of Medicine – Boston, MA, USA

Objective: To determine the effectiveness of dermatology lectures in establishing functional competence and perceived adequacy of training among medical students.

Methods: 172 2nd yr medical students participated in a comprehensive lecture based Dermatology module in the systems-based core curriculum during 2nd year.

Short-term learning of content was assessed by final examination given immediately after completion of the course assessing students' ability to recognize the 3 most common malignant cutaneous lesions and 2 benign lesions that commonly require distinction from melanoma (common nevus and seborrheic keratosis). Eight weeks later, the students completed a voluntary assessment containing the same content.

During the same academic year, 4th yr students that had received the same core curricular content and teaching methods during their 2nd year participated in a questionnaire surveying perceived preparedness in practices and skills common to dermatology evaluation and management.

Results: Dermatology lectures resulted in poor performance in recognition of all benign and malignant lesions 8 weeks after receiving lectures compared to immediately after receiving lectures. The expected number of correct responses at 8 weeks decreased by a factor of 0.455 ($p = <0.0001$) compared to baseline, which resulted in students having a 49% reduced chance of obtaining a correct response on any question type at 8 weeks compared to baseline (RR 0.51, 95% CI 0.49 - 0.54). More than half of medical students nearing post-graduate training whose primary method of instruction was dermatology lectures perceived inadequate training in performing a skin examination, making a dermatologic diagnosis, performing a skin scraping for potassium hydroxide testing, performing cryotherapy, and performing a skin biopsy.

Conclusions: Dermatology lectures, the major and frequently the only structured opportunity for instruction in dermatology in medical school, did not result in long-term recognition competence. Graduating students receiving only lectures perceive being unprepared to perform basic dermatologic evaluation and management. Use of lectures to teach lesion recognition in the dermatology core curriculum may be over-emphasized. Modification of the curricular structure to include vertically integrated exposures in dermatology may improve recognition outcomes and perceptions of adequacy of training.

Developing a new learning tool for dermatopathology.

Rajendra Singh, MD[1], Dirk Elston, MD[2] and Tammie Ferringer, MD[3]
[1]Mt. Sinai School of Medicine, New York, NY, [2]Ackerman Academy of Dermatopathology, New York, NY, [3]Geisinger Medical Center, Danville, PA

The present era of tablets and mobile phones has revolutionized the way people get their reading material. Every bit of information is now literally at your fingertips. Integration of these reading devices with digital pathology is permanently changing the way residents and fellows learn the art of dermatopathology. Digital pathology involves the use of whole slide imaging (WSI) processed through digital scanners to view slides over the internet and on the computer rather than a microscope. Slides can be now scanned with high quality resolution within minutes and viewed from anywhere in the world. Whether dermatopathologists like it or not, digital pathology is the way of the future and it is highly recommended that incoming residents and fellows be well versed in this technology. Just as learning to make diagnosis over the microscope requires a lot of practice, viewing slides on computers and large screen televisions will involve a learning curve and will also require a lot of practice and training. With the digitalization of slides and the availability of interfaces that are always in your pockets, it is not far in the future when books will become the second choice and people would want every bit of information through these devices. If you are a parent of a high school kid, you must have already seen how kids are using their tablets and mobiles to get information. The interactive platform provided by these interfaces makes learning a more fun and involved process.

Taking a cue from all these developments, we present the first in-depth application in pathology that harnesses the advantages of these technologies. Our application is known as “myDermpath” and will be available for download by summer 2012. The data in the application has been co-authored by Drs. Singh, Elston and Ferringer. It provides an interactive platform that walks a user through an algorithm that includes almost every entity in dermatopathology. If the user does not want to use the algorithm, he or she can directly get to a diagnosis and read about its histological and clinical features. These are supported with histological and clinical images. The user also has the option of connecting to the internet and viewing a digital slide of the case. There are algorithms also for immunohistochemistry, special stains and immunoflouroscence. There is an option of a fun Pop Quiz to test yourself with both clinical and histological images. A complete glossary with descriptions and images along with a video of normal skin histology augments the learning process. It can be used both for learning dermatopathology by medical students, residents and fellows, as well as by practicing dermatopathologists and pathologists who see skin biopsies in their daily practice. Today, I will walk you through the entire application and show what it has to offer to enhance the teaching process.

Attitudes of U.S. dermatology residents and faculty regarding interaction with pharmaceutical industry.

Erica K. Linnell MD, Vincent DeLeo MD
St. Luke's Roosevelt Department of Dermatology, New York, NY, USA

Introduction: The ethicality of pharmaceutical representatives (PRs) interacting with students, residents and faculty physicians has been questioned in the past by not only the public but by national medical organizations and individual teaching institutions. In this study, we sought to evaluate pharmaceutical interaction with U.S. dermatology residents and faculty and attitudes of chief residents and program directors in regards to these relationships.

Methods: A 17 question electronic survey was sent to all 116 ACGME approved dermatology residency program directors and chief residents in September 2010 via Survey Monkey. Two subsequent reminders were also sent in the weeks that followed and the last survey response was submitted October 11, 2010.

Results: Of the 114 respondents, 37% were program directors, and 50% were chief residents. The remaining 13% were dermatology first, second, and third year residents, dermatology fellowship coordinators, and associate program directors. Seventy three percent of the respondents stated that their programs accepted pharmaceutical support. The most common forms of support included educational materials (68%), drug samples (55%), funds for travel/registration at national meetings (55%), and private lunches or dinners (27%). The majority stated that their departmental/administration's beliefs regarding pharmaceutical interaction is that it is acceptable in certain circumstances (60%). Twenty six percent stated that these interactions would never be acceptable, and 8% stated that they're not acceptable but not discouraged. This trend was similar to the respondents personal beliefs regarding industry interactions: 71% stated that it is acceptable in certain circumstances. However, 13% of respondents also stated that that pharmaceutical support of residency programs is acceptable and encouraged, while only 9% stated that it is never acceptable. Some respondents feel that interaction with pharmaceutical companies affects prescribing patterns (54%), and 46% do not think it does. When asked about the ethicality of interacting with pharmaceutical companies, 29% felt it is ethically questionable, while 71% did not feel that it is ethically questionable.

Conclusion: U. S. Dermatology residents and faculty have significant interactions with the pharmaceutical industry, and the majority of our survey respondents feel that these interactions are acceptable. In addition, the perceived attitudes of the "department/administration" is that these interactions are also acceptable in certain circumstances. Most respondents felt that interactions with PRs affect prescribing patterns, especially amongst residents who are more easily influenced. On the other hand, some residents felt that they would not be influenced by PRs, but that it is beneficial to be introduced to new and different medications in residency. This feeling of immunity to the pharmaceutical industry has been described in previous surveys of medical residents, despite other studies finding that interacting with PRs does affect prescribing behavior. Despite many guidelines and ethical concerns regarding interactions between physicians and the pharmaceutical industry, dermatology residents and program directors continue to have a permissive attitude regarding these relationships. This is similar to other surveys of residents and faculty in other medical specialties.

Bridging dermatologists with patient advocacy groups for skin disease through smartphones: a preliminary study.

AS Kourosh, E Schoenberg, J Dejace, P Bergstresser
University of Texas Southwestern, Dallas, TX USA

Background: Since patient advocacy groups in the Coalition of Skin Diseases report that physicians comprise less than 10% of their mailing lists and that less than 10% of their registrants were recruited through physician referrals, we hypothesized that smartphones may be utilized to improve dermatologists' awareness of these organizations and to facilitate patient referrals to them.

Purpose: To provide information and insight in designing smartphone-based interventions, we first sought to measure the current prevalence of smart phone usage and awareness and referral behaviors of dermatologists and dermatology residents in Texas with respect to patient advocacy groups for skin disease. We then developed an iPhone application to facilitate referral of patients to these groups, and tracked its usage to assess its utilization.

Methods: Dermatologists and dermatology residents were asked to respond anonymously to a written questionnaire regarding use of iPhones and iPhone compatible devices and their awareness and frequency of referral with respect to patient advocacy groups for skin disease. The survey was administered during meetings of the Dallas and Ft. Worth Dermatological Societies and the Texas Dermatologic Society, from April to June of 2011. In September of 2011 the Skin Advocate iPhone application was released as a free download on the Apple application store and survey respondents and members of the Texas Dermatologic Society were notified of its availability via e-mail. The application allows tracking of the number of downloads/users and as well as usage of the application over time.

Results: We received 115 completed questionnaires; 85% of respondents had smartphones, 90% of which were iPhone compatible (or 76% of the total). Of those with iPhone compatible devices, 90% used these devices for medical work-related purposes. Among all respondents, 28% could not identify at least 1 skin disease corresponding to an existing patient advocacy group. , At least 30% had never referred a patient to a patient advocacy group in the form of written or verbal information. Of those who referred patients, 64% refer patients a maximum of 3 times per year. The most common reasons reported for failure to refer patients to such groups were lack of awareness, the time-consuming nature of making referrals, and lack of knowledge about benefits to patients. By October 31, 2011 (end of the first full month of usage), the Skin Advocate App was downloaded by 304 users, and used 1006 times with an average of 3.3 usages per user for that month. This suggested an improvement in referral behavior for 95% of Texas dermatologists, a 3-fold improvement for 90%, and a 12-fold improvement for 64%.

Conclusions: An overwhelming majority of dermatologists and dermatology residents use iPhone compatible devices, while relatively few refer patients to patient advocacy groups because they are unaware of these groups' existence or potential benefits for patients or because they perceive the referral process to be time-consuming. Our dichotomous results -- widespread use of iPhone compatible devices and their under-utilization for patient referral -- provide a basis for testing the

hypothesis that iPhone-based programs can be created for dermatologists to make referrals to skin disease advocacy groups easier and thus increase referrals to these organizations. Preliminary data suggest that an iPhone compatible tool that streamlines the referral process can increase referrals.

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Preliminary data on the effectiveness of a resident-as-teacher program in dermatology.

Susan Burgin, M.D., Assistant Professor, Harvard Medical School, Department of Dermatology, BIDMC; Ruth Ann Vleugels, M.D., Instructor, Department of Dermatology, BWH; Amy Sullivan, Ed.D, Director of Education Research; and Lori Newman, M.Ed., Director of Faculty Education, both at the Shapiro Institute for Education and Research at BIDMC.

Background: The Harvard Dermatology Resident-as-Teacher Program provides residents with experience teaching medical students and/or co-residents in small groups and formal feedback on teaching after each observed session. We assessed residents' interest in and perceived value of the program and the effectiveness of feedback provided after direct observation of teaching.

Results: Twenty of 22 residents completed a questionnaire that assessed interest in the program and teaching skills learned. Eleven residents reported attending a total of 22 feedback meetings: 82% agreed/strongly agreed that the feedback increased their confidence in leading small group discussions. Residents reported having learned a broad range of skills.
Six residents were observed in 2 teaching sessions each by a clinician educator using a teaching observation form. Teaching skills were assessed in 15 performance domains. After the first session, each resident received feedback on his/her performance. A second observation determined if the feedback provided led to improved teaching. A statistically significant increase in 10 of 15 teaching skills domains as well as residents' teaching skills as a whole was noted.

Conclusion: The Harvard Dermatology Resident-as-Teacher Program has been enthusiastically received. Preliminary effectiveness data shows statistically significant changes in residents' teaching performances. Further study of the program's effectiveness and new teaching sessions are scheduled.

Teaching manual for educators in dermatology.

Carlos Garcia, MD
Dept of Dermatology at the Oklahoma University Health Sciences Center

Teaching is an important responsibility of educators. Teaching and assessment skills are expected/ demanded from faculty staff but few opportunities are provided to develop and improve skills and attitudes. Faculty development programs should be available to promote teaching and assessment skills and such programs should be available to all dermatology faculty. Nowadays, some dermatologic professional groups have available some lectures, courses, and workshops on teaching and assessment but their number is still small. Although, online resources abound, there is no single printed resource available to dermatology teachers that would cover the essential information on teaching and assessment to help them acquire knowledge, improve their skills, and advance their scholarship and careers.
The purpose of this presentation is to introduce a succinct but comprehensive manual on medical education topics drafted over the years by the author. Topics include:

1) Introduction to teaching and learning
2) Characteristics of a good teacher
3) Preparation for teaching
4) Techniques to teach in the clinics
5) Techniques to teach in the classroom
6) Preparation of good and effective lectures
7) Providing adequate feedback
8) Leading group discussions
9) Teaching learners how to write a scientific paper
10) Teaching learners how to read/ criticize a scientific paper
11) Assessment of learner performance
12) Mentorship 101
13) The ABC of curriculum development
14) Evaluation of faculty effectiveness
15) Success in academic Medicine

This collection of drafts is based strictly on information gathered from books on medical education, education- related online resources, and scientific articles published in peer- reviewed journals. Personal experience and bias are kept to a minimum. A comprehensive reference list will be provided. The manual will be made available to all DTEG members free of charge. Feedback will be requested from the DTEG membership and the manual will be revised/ improved based on their commentaries and advice.

What refutes that diagnosis? A five step teachable approach to morphology rounds .

James C. Shaw, MD, FRCPC, Head, Division of Dermatology, Women's College Hospital, University of Toronto, Toronto, ON, Canada

Goal: To improve morphological diagnostic skills in a systematic method that encourages arriving at one correct diagnosis, and is eminently teachable.

Rationale: Formal training of skin diagnosis during residency often becomes an exercise in repetition and pattern recognition. Program directors are painfully aware of the unpredictability of talent in the morphological diagnostic skills of residents. This unpredictability calls for a teachable method that reduces the reliance upon inherent aptitude. Most residents learn to recite long lists of differential diagnoses when presented with a patient or photo, but nuanced details that differentiate one clinical diagnosis over a similar looking one often get overlooked.

Method: During patient or photo rounds:

1. What is the feature that most influences your differential thought process (color, shape; distribution, erosion, follicular involvement; etc)
2. Is there a pathognomonic feature that clinches a particular diagnosis?
3. For each alternative diagnosis in the differential, which features favor that diagnosis, and which features refute (or go against) that diagnosis?"
4. Can you predict histology based on morphology, eg spongiotic, histiocytic (granulomatous), pigmentary incontinence, interface change, etc?
5. Can you ultimately create a 'short list' differential of decreasing likelihood, not an exhaustive list with equal weight and uncertainty?

Dissemination: A new section, Morphology Rounds, in the Archives or JAAD? Focus Sessions at the AAD?

Rash reconnaissance: An active learning tool for teaching clinical dermatology to medical students.

Spraker, Mary K; Brownfield, Erica D; Jones, Danielle
Emory University School of Medicine, Atlanta, GA.

Exposure to Dermatology in Emory's revised curriculum consists of one week of half day basic lectures during the M1 year followed in the M2 year during an ambulatory care rotation by 2 seminars and 4 half days in the dermatology clinic. We sought a way to better integrate dermatology into the students' medicine and pediatric experiences. We ask each student to take a digital image of one interesting "rash" for seminar presentation.

Rash Reconnaissance has been enthusiastically embraced by the students, as indicated by a voluntary participation rate of about 90%. Discussions are lively - each student has a vested interest. A side benefit is data collection. Multiple studies list the frequency of diagnoses seen in dermatology clinics, but there is less data regarding skin diseases seen in primary care clinics. We have 135 medical students out in our community sampling. In 2 years of teaching these sessions we have found that most cases fit into the categories of: dermatitis, papulosquamous, reactive erythemas, skin infections, pediatric dermatology, and miscellaneous. This data has assisted us in designing our curriculum.

Rash Reconnaissance has been novel and fun for both students and faculty. Because it requires active participation on the part of the medical student, we believe it fosters more effective learning.

Dermatology knowledge at the end of medical school: Preferred teaching styles and the effects of a new dermatology curriculum.

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[1]Department of Dermatology, University of Colorado Denver, Aurora, CO
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We surveyed graduating fourth year medical students at the University of Colorado to ascertain their knowledge and comfort with dermatology as well as determine their opinions on the best way to teach dermatology. The survey was administered in April just before graduation and we were able to compare survey results between the Classes of 2008 and 2009. As part of an overhaul of the medical school curriculum, a new dermatology course was taught to the Class of 2009 in their first year of medical school. The survey was completed by 92% of students in the Class of 2008 which had the old curriculum and 57% of students in the class of 2009 which completed the new curriculum. Therefore, we were able to compare the survey results between classes which had the old and new curriculums.

Students taught under the new curriculum reported having more clerkship opportunities to learn about dermatology and reported encountering more patients with skin disease in their clinical rotations. The students with the new curriculum were more knowledgeable about dermatology on an 8 item quiz. They also showed greater satisfaction with their learning about dermatology in different settings, and were more comfortable with a number of areas of dermatology content ($p < 0.05$). Students in both classes reported acquiring much of their dermatology knowledge on clinical rotations, but students who had the foundation of a dermatology course had better dermatology knowledge at the time of graduation.

Usage of and satisfaction with a dermatology Wiki website among medical students.

Lixia Ellis MD, PhD[1], Chad Vogeler, BA[2], Cory Dunnick MD[1], Robert Dellavalle MD, PhD, MSPH[1]
[1]Department of Dermatology, University of Colorado, Aurora, Colorado; [2]Jefferson Medical College, Thomas Jefferson University, Philadelphia, Pennsylvania

Background: A clinical rotation in dermatology can be a daunting experience for fourth year medical students. In what is typically a four-week rotation the students must immerse themselves in a large amount of information. In addition, the student must attend multiple different clinics and lectures. A single online source for all information would likely prove useful for these students.

Objectives: To determine quantitative and qualitative assessments of a new dermwiki website by fourth year students completing a dermatology rotation.

Methods: We developed an online wiki containing useful course and educational material which is updated regularly by dermatology physicians and residents. Students who completed the rotation were asked to complete a short survey to document their use and satisfaction with the wiki and their overall rotation.

Results: A total of eighteen surveys were completed by students between July 2011 and December 2011. All students thought the wiki was helpful to their education. Half of student accessed the site ten or more times during the month, and half accessed the web site less than ten times. The top half of users were significantly more satisfied with their rotation than the bottom half.

Conclusion: A wiki website may be a very helpful addition to the medical student educational program in dermatology.

A dermatoethics curriculum for residency implementation .

Stephanie K. Fabbro, BS, Julie M. Aultman, PhD, Eliot N. Mostow, MD, MPH
Northeastern Ohio Medical University, Rootstown, Ohio

Background: While exposure to general ethics is common in graduate medical, testing of residents in all specialties shows that residents do not do well as projected on ethical examinations. As this is becoming more recognized, so is dermatoethics and the unique issues faced in this field. The idea of teaching dermatoethics has been applied by few programs nationally, but teaching objectives have not been defined to apply broadly, and have focused only on principle-based ethics, omitting person-centered narrative ethics.

Design: The curriculum addresses principles of bioethics using the medical model; including medical students, residents, and faculty. The Dermatoethics Spectrum of Learning identifies needs of each learner, with residents focusing on issues specific to dermatology, humanities in training and medicolegal implications. A CME-curriculum emphasizes faculty development and mentorship skills needed to identify ethical dilemmas and discuss such with junior attendees.

Conclusion: Incorporating dermatoethics into residency requires minimal resources and grants medical professionals with the skills needed to act professionally in practice, to generate a dialogue about solving the large-scale problems that our specialty faces, and to create solutions in the future.

The use of audience response systems in various setting in dermatology.

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1-University of Pennsylvania Department of Dermatology, Philadelphia, PA 19104

Dermatology education requires the delivery of large amounts of detailed information to adult learners, and this often is presented passively in didactic lectures. An interactive learning environment has been shown to be beneficial for information recall and retention[1], and audience response systems (ARS) have recently been successfully introduced in medical education, including the fields of OB/GYN[1], radiology, and family practice. We piloted the use of ARS at our institution as part of our city-wide clinical case conference. Overall, 82% of participants felt it was an important and valuable addition to the conference with 87% strongly preferring its incorporation at future conferences. We also used ARS at grand rounds and resident/student didactics with favorable results and positive feedback. A survey of dermatology programs was performed and revealed that fewer than 30% of programs are currently using ARS for their similar educational events, with a range of perceived potential benefits and barriers to implementation. Among ARS, Turning Point Technologies and iClicker were the most popular platforms. The success of ARS suggests that this may be a beneficial way to promote active learning into dermatology, although cost and time constraints may be barriers to its incorporation. Studies evaluating the impact of ARS on learning and retention in dermatology will be essential in determining whether wider use of this technology should be implemented in the our field.

1-Pradhan A, Sparano D, Ananth CV. The influence of an audience response system on knowledge retention: An application to resident education. American Journal of Obstetrics and Gynecology (2005) 193, 1827–30.