



ABSTRACTS

Dermatology Teachers Exchange Group

Semi-Annual Meeting

4:15-6:30pm

Comiskey Room, Hyatt Regency Hotel

Chicago, IL, USA

September 12, 2008

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DERMATOLOGY TEACHERS EXCHANGE GROUP

4:15-6:30pm, Friday, September 12, 2008

Comiskey Room, Hyatt Regency Hotel

151 E. Wacker Drive, Chicago, IL

Speakers please adhere to the time allocated.

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|---------|---|--|
| 4:15 pm | Welcome | <i>PD Cruz Jr (Presiding);
UT Southwestern, Dallas, TX</i> |
| 4:20 | Getting medical students excited about dermatology:
A novel and interactive approach to teaching basic
dermatologic skills | <i>RB Luria, SA Norton, TA Darling
LC Sperling; Uniformed Services
Univ, Bethesda, MD</i> |
| 4:28 | Exchange | |
| 4:33 | Patient attitudes and preferences regarding
medical student participation in the dermatology
clinic: Overall receptiveness, examination and
procedures | <i>J Lin, A Garg; Mercy Med Ctr,
Baltimore, MD & Boston Univ,
Boston, MA</i> |
| 4:41 | Exchange | |
| 4:46 | Comparing the use of 3-D prosthetic mimics of
dermatologic lesions/eruptions with traditional
lecture utilizing 2-D lesions | <i>A Garg, HL Haley, G Fong, A
Tseng, D Hatem; Boston Univ &
Univ of Massachusetts, Boston, MA</i> |
| 4:54 | Exchange | |
| 4:59 | Journal club at the DTEG: The critical importance
of retrieval for learning | <i>J Boswell, PD Cruz Jr,
PR Bergstresser; UT Southwestern,
Dallas, TX</i> |
| 5:07 | Exchange | |
| 5:12 | A needs assessment of patient safety education
in dermatology residency programs | <i>H Johnson, V Levine, D Polsky; New
York Univ, New York, NY</i> |
| 5:20 | Exchange | |
| 5:25 | The use of departmental quality initiatives in
resident teaching and evaluation: A practice-
based learning and improvement and systems-
based practice approach | <i>AC Watson; Henry Ford, Detroit, MI</i> |
| 5:33 | Exchange | |
| 5:38 | Training generation X: Comparing attitudes and
perceptions of current dermatology residents
and program directors | <i>CA McGuire, HB Gladstone;
Stanford, Stanford, CA</i> |
| 5:46 | Exchange | |

5:51	The perceived effects of cosmetics on dermatology resident education	<i>R Schleichert, S Hostetler, MJ Zirwas; Ohio State Univ, Columbus, OH</i>
5:59	Exchange	
6:04	Dermatology Foundation Career Award recipients are more likely to remain in full-time academics	<i>J Channual, JJ Wu; UC Irvine, Irvine, CA</i>
6:12	Exchange	
6:17	Check your skin: A medical student-driven community service project	<i>M Horvath, B. Baranowski, A Bhatia, R Tung, R Brodell, S Desai; Northeast Ohio, Rootstown, OH; Northwestern, Chicago, IL; Cleveland Clinic, Cleveland, OH</i>
6:25	Exchange	

Getting Medical Students Excited about Dermatology: A Novel and Interactive Approach to Teaching Basic Dermatologic Skills. Rebecca B. Luria, Scott A. Norton, Thomas A. Darling, Leonard C. Sperling; Uniformed Services University of the Health Sciences and F. Edward Hébert School of Medicine, Bethesda, Maryland

Most medical students receive little dermatologic training outside of elective clinical rotations. This limited training results in weak dermatologic skills and decreased dermatologic patient care by non-dermatologists. Major barriers to undergraduate dermatology education include (1) limited time dedicated to dermatology education, and (2) limited dermatology clinic resources available for teaching large numbers of students.

We present a new paradigm for overcoming these barriers: an action-packed three-hour dermatology laboratory, given to all fourth year medical students at our institution.

During this hands-on lab, over 160 students rotate through eight clinically germane lab stations including: shave biopsy techniques, liquid nitrogen techniques, potassium hydroxide preparations, Tzanck smears, patch testing / contact dermatitis, ectoparasites, uses of the Woods lamp, and a topical medicaments demonstration.

Whether they are “biopsying” tomatoes, searching for hyphae in a sample of scale, feeling the burn of capsaicin, or smelling tar shampoo, these students are not only learning basic dermatologic skills, they are having fun!

Student feedback after this lab was overwhelmingly positive. Details of the lab curriculum as well as the logistics of delivering such a lab will be discussed.

Patient Attitudes and Preferences Regarding Medical Student Participation in the Dermatology Clinic: Overall Receptiveness, Examination, and Procedures. Janet C. Lin¹ and Amit Garg²; Mercy Medical Center, Baltimore, MD¹ and Boston University School of Medicine²

Background and Methods:

A patient’s receptiveness towards and confidence in a student directly impacts education. To explore patients’ attitudes and preferences towards medical student participation, we utilized a detailed 51 question survey to prospectively and anonymously evaluate the attitude and preferences of adult outpatient volunteers in the context of their overall experience, examination of specific anatomic areas, and undergoing common dermatologic procedures.

Results:

Sixty six patients completed the survey, the majority (81%) of whom had at least 1 prior dermatology visit with a student. Most patients felt at ease during the interview (96%), enjoyed the interaction (96%), felt the student understood the health care needs (89%), felt comfortable disclosing personal health information (83%), did not mind having to repeat their skin complaint or physical exam more than once (97%), felt comfortable with the physician and student discussing the case in his/her presence (97%), would feel comfortable sharing important teaching points with more than one student (77%), did not mind the appointment lasting longer due to student involvement (90%), rated their visits involving a student better than those without student involvement (58%). Some (27%) preferred having the nursing staff ask for verbal consent prior to student participation.

Some (33%) felt it necessary for the physician to be present while the student performed the physical exam. Almost half (49%) preferred having a student of the same gender perform the examination. More than 90% were comfortable with examination of the head and neck, chest, breasts, abdomen, back, buttocks, and extremities including hands and feet by a student of the same gender. Eighty nine percent were comfortable with examination of the groin without genital exposure, while 76% were comfortable with examination of genitalia by students of the same gender.

In general, patients had lower comfort levels with examination by a student of the opposite gender. More than 90% were comfortable with examination of the head and neck, back, and extremities including hands and feet by a student of the opposite gender. Slightly fewer were comfortable with examination of the chest (88%) and abdomen (85%) by a student of the opposite gender. A significant percentage of patients felt uncertain or uncomfortable with examination of the breasts (31%), buttocks (33%), groin without genital exposure (35%), genitalia (51%) by a student of the opposite gender.

The proportion of patients comfortable with students performing procedures under the guidance of an Attending varied according to the procedures involved, which included freezing (73%), injection (62%), suturing (52%), and excision (32%). More than half (54%) were comfortable with students performing biopsies under guidance.

Conclusion:

Overall, students were well received by patients in the dermatology clinic. Patients were comfortable with student participation in the examination, and a conservative approach may be considered for examinations of the genitalia that involve students of the opposite gender. Overall, patients had a willingness to permit students to perform common dermatologic procedures, and their comfort varied according to the procedure.

Comparing the use of 3-dimensional prosthetics mimics of dermatologic lesions and eruptions with traditional lecture utilizing 2-dimensional images. Amit Garg¹, Heather Lynn Haley², Grace Fong², Anita Tseng², David Hatem²; Boston University School of Medicine¹ and University of Massachusetts Medical School²

Background:

Lesions and eruptions are three dimensional (3D) structures with clinical features best appreciated by touch and subtle visual clues that are often lost in two dimensional (2D) photographs commonly used in teaching dermatology. We explore a novel methodology that employs virtual 3D prosthetic models of common and important lesions and eruptions to train 2nd year medical students in acquiring dermatologic skills.

Methods:

Second year medical students were divided randomly into two cohorts. Both 2D (n=49) and 3D (n=41) cohorts underwent a web based module employing 2D images that assessed recognition and basic management skills for several common and important lesions and eruptions. This pre-training assessment (T1) was followed by a single one hour teaching intervention in which the 2D cohort underwent a traditional content based lecture utilizing 2D images, while the 3D cohort underwent a teaching session utilizing 3D prosthetic lesions and eruptions affixed to a standardized patient. Content and teaching time were the same for both cohorts. All learners were assessed by the same web based module immediately after their respective instructional interventions (T2) and a third time three months after their teaching intervention (T3). The T3 assessment was expanded in order to better discriminate between the cohorts.

Results:

Paired t-tests show that 3D and 2D groups did not differ significantly on T1 (pre-training) overall scores (51.9 v 50.3, p=.54). Both groups showed a similar pattern of significant improvement from T1 to T2, and then a decrease in scores at T3; T3 scores were still significantly higher than T1 scores for both groups. One-way analysis of variance found that the 3D group had significantly higher T2 scores than the 2D group for overall performance (71 v 65, p=.029), lesion recognition (65 v 56, p=.023) and rash management (80 v 67, p=.01). Three months after the single teaching intervention, the 3D group still had significantly higher mean percent score for lesion recognition (47 v 40, p=.03) and a higher mean percent score for overall performance (though not significant at 60.0 v 55.4, p=.08). In the 3D group, learners agreed or strongly agreed that the 3D session was 1) more enjoyable than classroom lectures (96%), 2) effective in facilitating recognition of lesions and rashes (94%), and 3) perceived to be a more effective teaching method than lectures with 2D images (94%). The 3D learners felt that the 3D prosthetic pieces 1) appeared realistic enough to learn from (79%), 2) facilitated close examination of specific morphologic features (92%), and 3) had a learning benefit that outweighed their artificiality (96%). In the 2D group, 42% of learners agreed or strongly agreed that it was difficult to examine specific morphologic features of lesions and rashes projected as 2D images, while another 30% were neutral on this issue.

Conclusions:

The teaching methodology employing 3-dimensional prosthetic mimics resulted in improved immediate learning and long-term retention. These results provide a framework to further develop and evaluate this novel undergraduate teaching program in dermatology, and to consider its application in other health care learners.

Journal Club at the DTEG: The critical importance of retrieval for learning. John S. Boswell, Ponciano D. Cruz, Jr., Paul R. Bergstresser; Department of Dermatology, The University of Texas Southwestern Medical Center, Dallas, TX

With a goal at DTEG meetings of highlighting landmark studies on teaching and learning, we chose a paper from *Science* (2008;319:966) by Jeffrey Karpicke and Henry Roediger III from the Department of Psychological Sciences at Purdue University, West Lafayette, IN. We reprise their abstract below:

“Learning is often considered complete when a student can produce the correct answer to a question. In our research, students in one condition learned foreign language vocabulary words in the standard paradigm of repeated study-test trials. In 3 other conditions, once a student had correctly produced the vocabulary item, it was repeatedly studied but dropped from further testing, repeatedly tested but dropped from further study, or dropped from both study and test. Repeated studying after learning had no effect on delayed recall, but repeated testing produced a large positive effect. In addition, students’ predictions of their performance were uncorrelated with actual performance. The results demonstrate the critical role of retrieval practice in consolidating learning and show that even university students seem unaware of this fact.”

A needs assessment of patient safety education in dermatology residency programs. Hillary Johnson, Vicki Levine and David Polsky; Institution: New York University, New York, NY

Patient safety education teaches basic methods for avoidance and prevention of adverse events in health care that can be mitigated using systems-based corrections. Specialty-specific patient safety curricula design and implementation has not been reported for dermatology residency training. To better understand this educational need, the awareness and characteristics of safety education in dermatology residency programs was assessed by survey of dermatology resident physicians and program directors. A total of 210 residents and 52 faculty completed the survey at the 2008 annual meeting of the AAD.

Faculty members appear to have a greater interest in safety issues and awareness of their institution’s organization. While many residents have identified errors in patient care, fewer residents than faculty rate safety as very important. Significantly more faculty than resident respondents reported undergoing training and knowing the proper channels for reporting with respect to safety issues.

A series of questions was asked regarding the need for error reporting in scenarios involving medication, documentation, or procedural errors during patient care. There were no significant differences between the faculty and resident respondents. The large variability in responses suggests that greater consensus is needed to define reportable errors in the clinical setting. While each scenario would be considered a reportable event according to the strict guidelines of the Veterans Administration system, error reporting systems have not been standardized and vary per institution.

Medicine has traditionally attributed errors to failings in the knowledge or skill of the individual. Traditional attitudes in dermatology training programs may need to shift further to embrace an ideal culture of safety. The majority of respondents agreed that most medical errors are caused by individuals or lack of training; however, a founding principle in patient safety is that the root cause of medical errors can be traced not to individuals but to flaws in the care delivery system design. The systems approach seeks to identify factors leading to human error and encourages changes to prevent them before patients are harmed.

The use of departmental quality initiatives in resident teaching & evaluation: a practice based learning and improvement & systems based practice approach. Alice C. Watson; Department of Dermatology, Henry Ford Hospital, Detroit, MI

Background: As institutions focus on quality initiatives driven by changes in the external medical environment (ie PQRi, Insititute for Healthcare Improvement Initiatives, etc), residency programs can

utilize these departmental initiatives in teaching residents real-life approaches to PBLI and Systems Based Practice.

Objective: To use departmental quality initiatives and data to teach residents a systems-approach to evaluating an individual and group practice, and to monitor performance of residents on these performance quality indicators.

Methods: Residents are informed on orientation day that one part of their semi-annual evaluation is performance on quality indicators that are tracked in our department. Quality indicators are developed yearly for our department quality assurance (QA) plan. Data is gathered in an ongoing reporting method as well as with systematic quarterly review. Current quality indicators monitored by the department and utilized during resident evaluations are:

- Accurate Labeling of Pathology specimens
- Follow-up of positive skin cancer biopsies
- Isotretinoin monitoring

Other quality incidents involving residents are also reported and investigated on a continuous basis by the Program Director and Nurse Supervisor. This tracking facilitates the development of future quality assurance plans.

Results/Outcomes/Improvements: Incidents are reported either through our system online reporting or directly to Physician-in-Charge of QA, and individuals involved are notified at the time of incident discovery. Data-driven reports are generated for the entire department quarterly, and incidents involving residents are reported to the Program Director. These incidents are reviewed with the resident individually at the time of occurrence, and again at their semi-annual evaluation. The QA process is discussed with residents: at orientation, yearly at resident meetings, and during their semi-annual evaluation.

Significance: By involving residents in quality initiatives and reporting, one can improve clinical operations and patient care, while simultaneously teaching residents a practical approach to evaluating clinical practice in a systems-based and data driven method.

Training Generation X: Comparing Attitudes and Perceptions of Current Dermatology Residents and Program Directors. Courtney S. McGuire, Hayes B. Gladstone; Department of Dermatology, Stanford University, Stanford, California.

Objective: To determine selected attitudes of both current dermatology residents and program directors which may impact training and provide insight for more effective teaching methods.

Methods: An electronic survey was sent by email to random dermatology residents and program directors in the United States. The questionnaire was divided into two arms: resident attitudes toward life issues and how they perceived their program directors' attitudes and how program directors perceived similar issues.

Results There were completed questionnaires from 127 residents and 56 program directors. The average age: residents was 31.2; program directors was 51.8. Selected comparison of attitudes included: Balance in their career was important for 91.3% of residents compared with 63.3% of faculty ($p < 0.0001$). 92.5% of program directors considered balance was important to residents while only 25.7% of residents felt balance was important to program directors. 41.1% of program directors reported defining themselves by their work compared with 20.3% of residents ($p < 0.004$). There was a significant difference in predicted age of retirement, with 53.9% of residents predicted retiring in their 60s while 50.0% directors predicted retiring in their 70s. Residents more often reported material success was important compared with program directors (38.9% vs 16.1% respectively, $p = 0.002$). 86.8% of program directors felt that material success was important to residents, while only 27.6% of residents felt material success was important to program directors. 88.3% of residents felt it was important to be able to perform surgical and laser procedures. Residents and program directors felt similarly comfortable with technology (76.4% vs 81.8%, $p = 0.4$). However, 98.1% of program directors felt their residents were comfortable with technology, while 47.2% of residents felt that program directors were comfortable with technology.

Conclusions: There are significant differences in attitudes between residents and their program directors in terms of life balance how they perceive their work. Residents are very comfortable with technology which suggests that more learning should be computer based modules.

The Perceived Effects of Cosmetics on Dermatology Resident Education. Rachel Schleichert, Sarah Hostetler, Matthew J. Zirwas; The Ohio State University, Columbus, OH

The media and public perception of dermatology as a specialty has changed significantly over the past decades, emphasizing many of the cosmetic aspects of dermatology. There is little evidence to support that there has truly been a shift in the overall practice patterns of dermatologists, and there has not been any systematic attempt to determine if there has been a shift towards increased emphasis on cosmetics training in dermatology residency programs. In addition, if such a shift has occurred, it is unknown if it has affected training in other aspects of dermatologic training, such as medical dermatology, cutaneous oncology, or dermatopathology.

In order to begin to address these questions, we performed a survey of the membership of the Association of Professors of Dermatology regarding their perceptions of changes in the emphasis on cosmetics in residency training over time and on the effects of any changes that have occurred.

We found that responding APD members feel that training in cosmetics is less important than is training in other subject areas, and they feel that residents are no more motivated to learn cosmetics than other subject areas. However, there has still been a perceived increase in the prominence of cosmetics training. In addition, the majority of respondents felt that this increased prominence of cosmetics has led to graduating residents having less expertise and interest in medical dermatology. Despite these findings, there was little support for interventions by the RRC or ABD to either limit cosmetics training or to increase the emphasis on medical dermatology training.

Dermatology Foundation Career Development Award recipients are more likely to remain in full-time academics. Jennifer Channal and Jashin J. Wu; University of California, Irvine, School of Medicine, Irvine, CA, Department of Dermatology, Kaiser Permanente Los Angeles Medical Center, Los Angeles, CA

Background: A growing decline in academic dermatologists has led to several studies exploring possible explanations for this concerning trend. Interestingly, a study conducted by Wu et al, 2006, revealed that one of the characteristics of a dermatology residency program found to be strongly inversely correlated with producing full-time faculty was receiving Dermatology Foundation (DF) grants from 2001-2004.

Objectives: To objectively determine whether DF Career Development Award (CDA) recipients from 1990-2002 remained in academics full-time at least 5 years after receiving the award.

Methods: To determine whether a recipient was a "full-time" faculty member as of December 2007, each recipient's name (n=79) was searched using various search engines. Main outcome measures were the percentage of recipients involved in academics full-time and by number of years (1, 2, or 3) awarded and the percentage involved in full-time academics by award subtype.

Results: 68.3% (54/79) were involved in academics full-time and 3.80% (3/79) achieved the academic level of chair/chief. Continued involvement in full-time academics varied by the number of years awarded (chi-square=1.389, P=0.499). Of the recipients awarded for 1, 2, or 3 years, 60.7% (17/28), 76.1% (16/21), or 70.0% (21/30) were involved in academics full-time, respectively. By subtype, 100% (5/5) of the "Clinical CDA in Health Care Policy" recipients were involved in full-time academics, followed by 66.7% (2/3) of the "Clinical CDA in Dermatologic Surgery," 65.9% (29/44) of the "Clinical CDA," and 66.7% (18/27) of the "Research CDA" recipients. Interestingly, 36.7% of the recipients held combined MD/PhD degrees and 72.4% continued their involvement in academics.

Conclusions: This study suggests that full -time faculty who earn a DF CDA are actually more likely to remain in academics.

Check Your Skin – A Medical Student-Driven Community Service Project. M Horvath, B Baranowski, R Tung, R Brodell, A Bhatia, S Desai; Northeastern Ohio Universities College of Medicine, Rootstown OH; Northwestern University, Chicago, IL, Cleveland Clinic Foundation, Cleveland, OH;

Check Your Skin (CYS), first implemented at the Virginia Commonwealth University School of Medicine in 2001, is a medical student-driven community service project in which medical students work with communities to promote early detection of skin cancer. The goals of the project include increasing awareness of skin cancer risks, encouraging sun protection, and promoting early skin cancer discovery. Medical students use educational posters and PowerPoint presentations to review risk factors for skin cancer, promote sunscreen use and other methods of sun protection, teach self-skin exam methods, and provide sunscreen samples, CYS cards displaying both the ABCDE's and a calendar as a reminder for monthly self-skin exams. Each project is supervised by a university-based dermatology faculty member and a dermatology resident advisor.

The project consists of two phases: Phase I involves the establishment of a medical student-based group that will organize the community workshops. The students hold regular meetings and assemble educational programs. With the combined creativity of chapter members, the possibilities for increasing public health awareness about skin cancer are endless.

Phase II involves fundraising and evaluating the project. Currently 4 university programs employ the CYS project, reaching nearly 400 adults and children. Its success can in part be attributed to a donation of 2,000 CYS cards from Kinko's and a \$5,000 sponsorship for UV bracelets from OrthoNeutrogena. In order to assess the program, pre-and post-testing is done to review individuals' perceived susceptibility to skin cancer, the importance of prevention, and proficiency of skin exams.

In addition to increasing awareness regarding skin cancer and the importance of early detection, the CYS project also benefits medical students by improving presentation skills and melanoma familiarity and by promoting community action and teamwork. The basic materials to initiate a CYS chapter are available at www.CheckYourSkin.net.