Semiannual Meeting of the
**DERMATOLOGY TEACHERS EXCHANGE GROUP**
4:30 pm – 6:30 pm, Friday September 12, 2014
Lucerne, Swissotel, Chicago, Illinois

4:30 **WELCOME and INTRODUCTIONS**

**PART 1: SPECIAL ABSTRACT SESSION: CLER, APE, PEC, CCC, and MILESTONES ASSESSMENT**

4:35 1. A Resident-centric Program Embracing the Clinical Learning Environment Review (CLER) Movement at the University of Mississippi Medical Center

4:45 **EXCHANGE**

4:55 2. FAST: an electronic workplace-based formative assessment tool

5:05 3. Workplace-Based Formative Assessment: Faculty Time and Impact on Patients
(COMBINED WITH: Pros and Cons of Workplace-based Formative Assessment: A Survey)

5:15 4. Standardized patient workshops in dermatology residency training: an educational activity for coaching and assessment

5:25 **EXCHANGE**

**PART 2. RESIDENCY CLINICAL CARE**

5:40 5. Can you see me now?: Video supplementation for pediatric teledermatology cases

5:45 6. Survey on the Format of and Satisfaction with Continuity Clinic in Dermatology Residency Training

5:50 **EXCHANGE**

**PART 3. RESIDENCY ADMINISTRATION**

5:55 7. Dermatology Residency Coordinator's Group Proposal

6:00 **EXCHANGE**

**PART 4. MEDICAL STUDENT TEACHING AND LEARNING**

6:05 8. Evaluating the Utility of VisualDx in Accurately Making Dermatologic Diagnoses

6:10 9. Structured Mentoring Program (SMP) for Dermatology Applicants

6:15 **EXCHANGE**

**PART 5. LATE BREAKING HOT TOPIC: MEDICAL DERMATOLOGY LOG**

6:20 10. Accomplishing dermatology medical logs with minimal time addition for residents: an EHR data warehouse / program coordinator pilot at the Marshfield Clinic.

6:25 **EXCHANGE**

6:30 **PROGRAM CONCLUDES**

**1.**

Resident-centric Program Embracing the Clinical Learning Environment Review (CLER) Movement at the University of Mississippi Medical Center Kathleen Casamiquela, MD, Kenneth Saul, MD, , Robert T Brodell, MD, Jeremy D Jackson MD, Nancye McCowan MD

The Accreditation Council for Graduate Medical Education (ACGME) as part of the next accreditation system has developed the Clinical Learning Environment Review (CLER) program. CLER is designed to assess the learning environment of sponsoring institutions involved in residency and fellowship training. This encourages hospitals, multispecialty groups and other organizations that provide residency/fellowship training to promote quality and safety of the health care environment in the process of resident learning and patient care.

The Dermatology Department at the University of Mississippi has embraced this effort by establishing the QA/QI Moment. An achievable quality project is presented during the first 15 minutes of monthly faculty meetings. Situations where patient harm occurred or could occur were identified by residents, assessed in collaboration with faculty to design logical, cost-effective interventions, and, finally, enacted with a system designed to "close the loop" ensuring that effort invested was not wasted. The first six topics included: Antifungal Drug Interactions; ensuring methotrexate (MTX) test dose; minimizing EPIC EHR "warning fatigue"; positioning safety suggestion boxes in clinics; HAIKU• initiative; improving hand hygiene initiative, and initiating a verbal time-out when labeling specimens. It is hoped that effort to design systems that improve the quality of care in a residency program will impact the quality of care rendered by residents after graduation.

**2.**

eFAST: an electronic workplace-based formative assessment tool

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Many assessments of resident physicians are summative and infrequent; these assessments do not create opportunities for residents to learn from their performance. In contrast, workplace-based formative assessment (WBFA) can inform residents of the gaps between their observed and expected performance. New regulations require documentation of residents' observable behaviors. Current WBFA tools such as the mini-CEX are paper-based, utilize primarily ratings or rankings , with only small spaces for written comments and action plans. There are

opportunities to improve WBFA tools by emphasizing *text-based* feedback and facilitating the use of comments from prior observations.

We have developed an electronic WBFA tool that runs on an iPad (see pictures). In our clinic, attendings perform a WBFA with one resident at the start of clinic. Attendings can type comments about observable behaviors related to history taking, physical exam, development of the assessment and plan, interpersonal skills, and communication. The tool has a separate space to evaluate procedures. On completion the resident, with attending input, generates three items: something done well, an item for improvement, and an action to be implemented in the future (or action item). The tool saves this information and it is emailed to the learner and attending two weeks later, which aims to interrupt the forgetting curve. The tool also incorporates the action item into the next assessment in order to encourage follow-through.

We aim to present:
-the educational theory that supports WBFA
-the rationale for developing an electronic WBFA with advanced functionality in displays, notifications, and integration of prior performance
-our experience and feedback using this new tool

**3.**

Workplace-Based Formative Assessment: Faculty Time and Impact on Patients

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Background: We perform workplace-based formative assessments (WBFA) in our resident clinics using a form called the Formative Assessment of Skills in Training. One of the frequent concerns of the faculty and residents was the time commitment. Specifically, some faculty and residents felt that the WBFA was “time efficient” while others felt they were “sometimes unable to do it due to time.” Residents had concerns that the WBFA process could disrupt or delay the patient schedule. Based on these comments we performed a study to investigate the actual time requirements to perform WBFA and the impact on the patients’ time in the room.

Methods: We observed and recorded the time spent in the room by the attending and the patient during clinics when the assessment was and was not used. The time that a second resident had to wait for the attending was also recorded.

Results: 39 observations with complete data were obtained.

| | Resident A | Resident A | Resident B | Resident B |
|---|---|---|---|---|
| | Faculty Time in Room | Patient Time in Room | Resident Wait for Attending | Patient Time in Room |
| **WBFA used** | **7.4 (3.6)** | **12.9 (4.4)** | 3.5 (2.5) | 13.7 (4.9) |
| **WBFA not used** | **3.3 (3.0)** | **12.9 (4.9)** | 2.2 (1.8) | 15.9 (5.0) |
| p-value | 0.004 | >.99 | .10 | >.99 |

Discussion: This study showed that use of WBFA added an average of 4.1 minutes for an attending. The wait for the concurrent resident to precept a patient was 1.3 minutes longer. There appears to be no impact on the patient time in the room when WBFA is utilized. . It is important to understand the real time requirements for WBFA as it may help overcome barriers to WBFA use.

Pros and Cons of Workplace-based Formative Assessment: A Survey

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The Accreditation Council on Graduate Medical Education (ACGME) has described several physician competencies; some of these such as interpersonal skills, professionalism, and interdisciplinary teamwork, are more aptly taught using clinical observation and feedback. Workplace-based formative assessment (WFA) aims to identify gaps in skills or knowledge, generate feedback immediately or soon after the encounter, and occurs in a workplace setting. Unfortunately, observations of trainees in the clinical setting are uncommon and the barriers to utilization are not fully understood. We conducted an electronic survey that was distributed to the US dermatology programs. Responses were collected from 43% (56/131) of the programs. 50% (28/56) of the respondent programs use any type of WFA. 50% (14/28) of the programs that do not currently utilize WFA plan to add it in the future. “time for faculty to observe” and “faculty interest” were the most frequent barriers. The most frequent advantages were “provides feedback to residents about their performance” and “assessment encourages conversation/ collaboration between attending and resident” and “occurs during realistic scenarios.” This study shows there are several perceived barriers to WFA use in graduate medical education. Time for faculty to perform WFA was the most frequent barrier in this study; however there are few studies that have investigated the time commitment. In a prior study the time commitment was less than 10 minutes. Another concern in this study was the impact on patient care and again, the patient perception of WFA use in graduate medical education is not well described. If selected, we will present some of the literature around the pros and cons of WFA. However, there are opportunities to further investigate the perceived barriers associated with this valuable teaching tool.

**4.**

Standardized patient workshops in dermatology residency training: an educational activity for coaching and assessment

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UCSF Dermatology

Clinical simulations with standardized patients are almost universally utilized in medical schools to assess learners' competency in the domains of patient care, medical knowledge, and communication/interpersonal skills. A key principle underlying the success of these evaluation tools is that each scripted, psychometrically tested case maps to specific clinical competencies.

In anticipation of the dermatology milestones, I have been piloting a standardized patient workshop in our residency program to coach and assess dermatology residents' skills in patient care, medical knowledge, and interpersonal/ communication skills with the future plan to utilize this workshop for formal learner evaluation. The 8 station workshop features a blended model of standardized patient simulations and pigs' feet stations including performing a full body skin exam, punch and shave biopsies, cryosurgery, intralesional injections, counseling patients on photoprotection, and agenda setting with a patient who presents with 4 chief complaints. All cases include documentation in the electronic medical record. In its current format, the learning objectives of each scenario map to dermatology-specific milestones, including medical knowledge, history taking, physical exam, documentation, communication and rapport with patients, difficult conversations.

This program has completed its third year, the lessons of which will be shared in the presentation. Though learners are not formally evaluated at this time, I envision this activity as a rich opportunity to coach and assess learners in a highly effective, efficient educational activity in the future.

**5.**

Can you see me now?: Video supplementation for pediatric teledermatology cases

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Background: Digital video is widely available and used sporadically in the clinical setting to evaluate patients; however, its ability to improve clinical management has not been determined.

Objective: To assess whether video in addition to still images can improve residents' diagnostic and management accuracy and confidence with pediatric teledermatology (TD) cases.

Methods: Dermatology residents from UC Davis, UCSF, and Stanford were alternately assigned to take an online survey with 15 pediatric TD cases presented with still images only (still) or still images plus video (mixed). Participants provided free-text diagnoses and management recommendations and rated their confidence and image quality. Responses were scored using a modified script concordance grading key based on a reference panel's responses.

Results: 31/54 eligible residents participated. Participants in the mixed group scored significantly higher on management accuracy [87.6(12.9) vs 71.7(14.2), p=.003] across 15 cases. Both groups performed better on more common cases. After adjusting for multiple comparisons there was no significant difference in diagnostic accuracy or confidence, management confidence, or image quality ratings between groups.
Limitations: Small sample size and inclusion of pediatric consults only.

Conclusion: Supplemental video may improve management accuracy for pediatric TD cases, especially for less common conditions. Residents may benefit from training on how to evaluate and take high quality videos. Potential applications of video supplementation include educational settings such as grand rounds, or clinical unknowns.

**6.**

Survey on the Format of and Satisfaction with Continuity Clinic in Dermatology Residency Training

Tiffany Loh, BS, Maryam Afshar, MD, Robert Dorschner, MD, Aria Vazirnia, MAS, Taraneh Paravar, MD
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Background: The ACGME program requirements for graduate medical education in dermatology delineate requirements for trainee continuity clinic. Residents must follow "a core group of

individual patients throughout the majority of the program in a minimum of a once-monthly continuity of care clinic setting, as well as in follow-up of inpatients and patients seen as consults or during night or weekend call."[1]

Objective: Given the requirement for continuity of care in resident education as well as the variety of methods by which this may occur, we sought to better understand this component of resident education among current dermatology trainees. Specifically we plan to evaluate clinic organization, clinic setting, clinic frequency, patient and preceptor characteristics, and to compare resident satisfaction and overall learning.

Method: An anonymous online survey will be distributed via the American Board of Dermatology (ABD) listserv to all dermatology residents in the United States and Canada. Responses will be tabulated and assessed.

Results: Pending survey responses.

1. Accreditation Council for Graduate Medical Education [Internet]. Chicago: ACGME Program Requirements for Graduate Medical Education in Dermatology. updated 20014 June 15; cited 2014 Jul 25] Available from: https://www.acgme.org/acgmeweb/tabid/130/ProgramandInstitutionalAccreditation/MedicalSpecialties/Dermatology.aspx

**7.**

Dermatology Residency Coordinator's Group Proposal

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Background: Currently there is no formal dermatology residency coordinator group. The program coordinator serves a crucial role for the residency, a role that requires management and organizational skills, and often creative problem solving. Unlike the ACGME annual meeting, an annual meeting for dermatology program coordinators would foster networking, learning, idea sharing and problem solving specific to the dermatology specialty, ACGME and RRC requirements. Of the 20 core residency programs within the DHMC, Dermatology is 1 of 2 programs that does not have a nationally organized coordinator group. 98% of all residency specialties have this type of specialty-specific program coordinator group and annual meeting.

Objective: To create an annual meeting for dermatology residency coordinators for the purpose of sharing best practices, networking, and professional development. Using survey monkey, I conducted a survey of DHMC program coordinators to assess their opinion of the value of their program coordinator group meeting and experience.

<u>Proposed Benefits/Value:</u>

- Professional development and networking.

- Collaboration, sharing of ideas and mentoring.
- Develop collegial and collaborative interaction which can lead to better problem solving.

Results: We will share the results of the DHMC program coordinator survey on the value of a national program coordinator group and meeting during this presentation.

Significance/Implications: An active organization with an annual meeting program would signify a more professional role of the program coordinator. This platform would enable and encourage the coordinator group to meet, learn, discuss ideas, and concerns. The expectation is that an individual coordinator would benefit by being more informed and involved, resulting in better efficiency and productivity, and a stronger overall program.

**8.**

Evaluating the Utility of VisualDx in Accurately Making Dermatologic Diagnoses

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Background and Objectives: Diagnosing dermatologic diseases can be a complicated task for primary care physicians, residents, and medical students. Many resources are available to help physicians make dermatologic diagnosis but very little research has been done to evaluate these sources. We sought to evaluate the utility of one differential diagnosis tool, VisualDx, in assisting a third year medical student in making dermatologic diagnoses.
Methods: Patients from a community based dermatology clinic were initially seen by the medical student and attending dermatologist simultaneously. After the initial exam, the medical student was asked to make a presumptive diagnosis and would then exit the exam room to input the skin findings from the exam into the VisualDx software. After inputting the exam findings into the software, the medical student would evaluate the differential generated by VisualDx to determine the medical student's final diagnosis. The diagnosis determined by the attending physician was used as the gold standard to determine if the medical student arrived at the correct diagnosis. The student was also asked to rate their certainty in their diagnosis before and after the usage of VisualDx to assess any change in confidence.
Results: The medical student was able to correctly diagnose 25% of cases prior to VisualDx and 88% of the cases after the assistance of VisualDx. The medical student's overall certainty in the proposed diagnosis increased from 34.84% before using VisualDx to 84.06% after using VisualDx.
Discussion: Overall, we found VisualDx to be an effective differential diagnosis tool to aid in making dermatologic diagnosis. This tool increased the proportion of correct diagnosis made with limited dermatology training. This tool can be used to assist in differential diagnosis and also to aid in medical education by utilizing the Socratic method of teaching.

**9.**

Structured Mentoring Program (SMP) for Dermatology Applicants

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Dermatology is considered a highly competitive specialty. Data from the National Resident Matching Program (NRMP) shows that in 2013, there were 574 applicants vying for 369 PGY2 positions and of those applicants that only ranked dermatology as a specialty, 27.4% did not match1. Although information for applicants is widely available on the internet though sites such as the AAMC Careers in Medicine2, many applicants do not receive formal mentoring early in their 4th year of medical school regarding matching into Dermatology. We devised a brief structured mentoring program (SMP) for medical students interested in Dermatology. The Dermatology residency program director and the director of Dermatology medical student education meet with each interested student and assess him/her on their competiveness using his/her USMLE score(s) and other items on his/her curriculum vitae such as research experience and publications. The students are then given tips on how to integrate into Dermatology clinical electives, securing strong letters of recommendation, and the dos and don'ts of the personal statement. After initiation of the SMP, the match rate into Dermatology was 85% (11 of 13 applicants matched in Dermatology) for medical students (2012-2014), a statistically significant (p value = 0.031) improvement in comparison to the match rate (43% or 6 of 14 applicants) previously (2010-2012). This data suggests that introducing a SMP early in the 4th year of medical school may be associated with changes in residency matching into Dermatology.

1. National Resident Matching Program: Results and Data 2013 Main Residency Match. https://www.nrmp.org.

2. https://www.aamc.org/cim/specialty/list/us/336836/dermatology.html

**10.**

Accomplishing dermatology medical logs with minimal time addition for residents: an EHR data warehouse / program coordinator pilot at the Marshfield Clinic.

Erik Stratman, MD. Marshfield Clinic.

Dermatology residency training programs value resident experience managing complex medical dermatology. Current methods to document this involve manual processes, primarily carried out by the residents, where they track and enter patient experiences into an ACGME online log. There is a difficult balance when weighing the value of captured experiential data with the costs of resident time to find and log this data. In the era of electronic health records (EHR), our goals should include never entering manually a second time what exists as structured data in a different database. In this pilot at Marshfield Clinic, we worked with EHR administrators to create data query templates that collect and report data for specified time intervals for each resident for each

area of interest sought through the ACGME medical dermatology log. Every 6 months, residents query the data warehouse using search templates, resulting in a list of patient encounters or experiences. The program coordinator is then utilized to enter these data into each resident's ACGME online log. The resident's role is primarily as reviewer once data is entered. This pilot shifts resident roles from tracking and entry to query and review. Querying EHR databases may allow less future manual tracking by residents