The Academy of Distinguished Medical Educators
Medical Education Day
Thursday, December 1, 2016

The Academy of Distinguished Medical Educators was founded in 2006 to support and promote research, innovation, and scholarship in medical education at the University of Chicago. The Academy is led by Halina Brukner, MD, Professor of Medicine and H. Barrett Fromme, MD, MHPE, Associate Professor of Pediatrics.

In addition to hosting Medical Education Day, the Academy sponsors faculty development workshops throughout the year and funds scholarship in medical education.

Keynote Speaker
Marc M. Triola, MD
Associate Dean for Educational Informatics
Associate Professor of Medicine
New York University School of Medicine
Director, Institute for Innovations in Medical Education

ORDER OF EVENTS

8:00-11:30 AM  Program and Clerkship Directors’ Education Workshop
Gordon Center for Integrative Science, Room W301-303
Feeding Forward and Reflecting Back Across the Continuum

12:00-1:00 PM  Keynote Address
UCMC P-117
Using Big Data to Innovate at the Intersection of the Clinical and Educational Missions
Marc M. Triola, MD

2:00-4:00 PM  Poster Session
Knapp Center for Biomedical Discovery (KCBD) 1st Floor Lobby

4:00-5:00 PM  Plenary Poster Presentations: Four Oral Abstracts
KCBD Auditorium 1103
- Resident Satisfaction with Practice Incorporation of Non-Physician Providers in an OB/Gyn Resident Clinic
- Medical Student Resilience and Stressful Clinical Events During Clinical Training
- Early Birds Working Night Owl Shifts: Intern Experience on Night Float Rotations and Relationship with Chronotype
- A Survey on Recent Medical School Graduate Comfort with the Level 1 Milestones

5:00-6:30 PM  Awards Ceremony & Reception
KCBD Auditorium 1103
Induction of new Fellows and Master of the Academy of Distinguished Medical Educators
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Medical Student Resilience and Stressful Clinical Events During Clinical Training
Jennifer Houpy, MD; Wei Wei Lee, MD, MPH; James Woodruff, MD; Amber Pincavage, MD

Early Birds Working Night Owl Shifts: Intern Experience On Night Float: Rotations and Relationship With Chronotype
Lauren D. Feld, MD; H. Barrett Fromme, MD, MHPE; Nicola Orlov, MD, MPH; Vineet Arora, MD, MAPP

A Survey on Recent Medical School Graduate Comfort with the Level 1 Milestones
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POSTER ABSTRACTS

1. Creating a Culture of Trauma-Informed Care: An Interprofessional Training
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3. A Novel Approach to Undergraduate Medical Student Nutrition Education: Engaging, Connecting, and Teaching Through an Online Platform, The Palate
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4. Students as Medical Educators: Student Perceptions of Preparedness for Peer Educator Roles
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5. Students As Medical Educators: Faculty Needs Analysis
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11. Comparison of Medical Student Self-Assessment and Faculty Assessment of Personal and Professional Development Skills
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Scholarship & Discovery
Research Funded by the ADME
Marc M. Triola, MD, is an Associate Professor of Medicine and the Associate Dean for Educational Informatics at the New York University (NYU) School of Medicine. Dr. Triola received his undergraduate degree from Johns Hopkins University and earned his MD at NYU School of Medicine in 1998. He continued at NYU for his residency training in Internal Medicine, and subsequently served as Chief Resident for the Internal Medicine Training Program. He completed a Research Fellowship in Medical Informatics at Mount Sinai School of Medicine upon completion of his residency program, from 2002-2004. He has been an attending physician at Tisch Hospital, Bellevue Hospital, and currently, the Manhattan VA Medical Center.

Dr. Triola has long been interested in the intersection of technology and medical education, and has been recognized for his work in this field with numerous awards: he received the NYU Langone Medical Center Spotlight Award, was selected as an NYU School of Medicine Master Educator, and even gave a Ted Talk at TedMed 2012. He is working to create a “learning ecosystem” that includes inter-connected computer-based e-learning tools and new ways to effectively integrate growing amounts of electronic data in educational research. He has also extensively studied the use of Virtual Patients, and the assessment of change in knowledge and attitudes resulting from computer-assisted instruction.

Dr. Triola is the Founding Director of the Institute for Innovations in Medical Education (IIME), a multidisciplinary team of faculty educators, education scientists, informaticians, and developers who apply the science of education and informatics to transform teaching, learning, and assessment at every level of NYU Langone Medical Center. In previous roles at NYU, he has served as the Director of the Division of Educational Informatics, the Chief of the Section of Medical Informatics, the Associate Director of the Center for Health Information Preparedness, and the Director of Research for Advanced Educational Systems.
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Associate Professor of Pathology

Lawrence D.H. Wood, MD, PhD  
Professor of Medicine (Emeritus), Former Dean for Medical Education

The Core Mission of the Academy is to:
- Promote excellence in teaching at the Pritzker School of Medicine
- Support scholarship among medical educators
- Enhance the Pritzker School of Medicine curriculum by supporting, recognizing, and rewarding its outstanding teachers
- Build community among medical educators at the Pritzker School of Medicine
- Facilitate the creation of an environment that enhances the status of medical educators at the University of Chicago
Masters of the Academy

Masters are faculty members who have been inducted into the Academy of Distinguished Medical Educators because of their long-standing contributions to medical education and their demonstration of the following:

- Sustained excellence in teaching in the medical school
- Evidence of institutional impact of educational contributions
- Evidence of educational scholarship and/or innovation
- Serve as role models who inspire others with joy of teaching

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Assistant Dean for Scholarship & Discovery

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- Recognized and well-documented excellence in teaching in the medical school
- Significant contributions to medical school courses or clerkships, including serving as course or clerkship director
- Potential for continued contributions and leadership in medical education

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Keme Carter, MD
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James Woodruff, MD  
Professor of Medicine, Associate Dean of Students
Jeanne Farnan, MD’02, MHPE is an Associate Professor of Medicine in the Section of Hospital Medicine and the Assistant Dean for Curricular Development and Evaluation at the Pritzker School of Medicine. Dr. Farnan received her undergraduate degree from the College of the University of Chicago, and went on to complete her MD at the Pritzker School of Medicine in 2002, and her residency training in Internal Medicine in 2005. Following her Internal Medicine residency training, she completed a two-year fellowship in Hospital Medicine, while simultaneously completing her Masters in Health Professions Education at the University of Illinois at Chicago in their Department of Medical Education.

As Assistant Dean for Curricular Development and Evaluation, Dr. Farnan works closely with the curriculum team to manage issues related to accreditation and to perform review issues related to student and programmatic evaluation. Dr. Farnan has worked closely with the team to revise the educational program objectives of the Pritzker School of Medicine and map the existing pre-clinical curriculum for the AAMC Curriculum Inventory initiative, a national-level initiative for curricular benchmarking. Nationally she serves as an inaugural members of the AAMC Curriculum Inventory Research Steering Committee and is on the AAMC RIME (Research In Medical Education) Program Planning Committee, planning and developing the educational research offerings during the AAMC national meeting. As Director of Clinical Skills Education at Pritzker and the Medical Director of the Pritzker Clinical Performance Center (CPC), she has extensive experience in the implementation of educational technology and simulation as well as in teaching history and physical examination skills. She currently serves as the Secretary for the National Directors of Clinical Skills consortium, and has served as the Central Group on Educational Affairs Representative to the Executive Committee.

Dr. Farnan is the Co-Leader of the Medical Education Track for the Pritzker Scholarship and Discovery Program, in which students receive the necessary skills and training to complete a mentored scholarly project in medical education by the time of graduation. She also serves as the co-director for two MS4 capstone courses that allow her to focus on her interest in integrating the UME curriculum and transitions to postgraduate training. She has been awarded “Favorite Faculty” six times for her work with undergraduate medical students. She has also been awarded the LDH Wood Pre-Clerkship Teaching Award and the Pre-Clinical Teacher of the Year award. In 2010, she received the Society for General Internal Medicine National Award for Scholarship in Medical Education.

Dr. Farnan is equally as involved in graduate and continuing medical education. She is a core faculty member in the MERITS Medical Education Fellowship, as well as the Internal Medicine residency program. She helps execute GME’s boot camp for incoming house-staff. Dr. Farnan is also on the Faculty Advancing in Medical Education (FAME) Steering Committee, and offers skills in direct observation and bedside teaching. Finally, she is an invited teacher for the ACGME Quarterly course on direct observation workshops for program director faculty development across the country.

Dr. Farnan has focused her career on research and scholarship in health professions education, using qualitative research methods to examine patient safety issues like handoffs, supervision, professionalism and social media. Her work has resulted in more than 50 peer-reviewed publications—including several book chapters—numerous invited speaking presentations. She is one of the co-principal investigators on the *AMA Accelerating Change in Medical Education Consortium* grant to create a longitudinal experiential program to train and empower all medical students with the knowledge and skills to be engaged members of the health care team and to serve as effective advocates for health care delivery science. She serves on countless committees within Pritzker as well as in the broader University. Dr. Farnan has mentored countless students, residents, fellows and faculty.
James Ahn, MD is an Assistant Professor of Medicine in the Section of Emergency Medicine. Dr. Ahn is a graduate of the College of the University of Chicago, received his MD at Jefferson Medical College in Philadelphia, PA, and completed his residency in Emergency Medicine at the University of Chicago. As a MERITS Fellow and a current student in the University of Illinois-Chicago Masters in Health Professions Education (MHPE) program, Dr. Ahn has demonstrated a longstanding commitment to innovation and research in medical education; indeed, he is a leader among his peers in teaching and mentorship, and has received both the Resident and the Faculty Teacher of the Year awards from emergency medicine residents. Dr. Ahn co-created and co-leads the GME MERITS program. In 2015, his efforts were recognized nationally when he was awarded the Faculty Teaching Award from the Council of Residency Directors. Dr. Ahn is an Associate Residency Director for the emergency medicine residency program, the Fellowship Director for the emergency medicine medical education fellowship, and is an Associate Junior Faculty Scholar in the Bucksbaum Institute for Clinical Excellence.

Diana Mitchell, MD is an Assistant Professor of Pediatrics in the Section of Critical Care at the University of Chicago. Dr. Mitchell earned her BA from Indiana University and her MD from Southern Illinois University School of Medicine. In 2004, she joined The University of Chicago where she completed her pediatric residency, chief residency, and fellowship in pediatric critical care. She was recruited to the pediatric faculty in 2011. Dr. Mitchell was selected as an Associate Fellow for the Bucksbaum Institute for Clinical Excellence in 2011-2012. She became Program Director of the Pediatric Critical Care Fellowship in 2014. Dr. Mitchell completed her MERITS Fellowship in 2016. Dr. Mitchell’s research interests are focused on simulation-based training. She is a devoted educator who has developed and implemented numerous interprofessional simulation-based training programs for physicians, nurses, residents, medical students and allied health professionals since 2007. Because of her expertise, she mentors junior faculty in the use of simulation for education and research, and is leading an institutional initiative to expand pediatrics simulation-based training to our affiliate community hospitals. Dr. Mitchell also serves as the faculty leader of the Pediatric Advanced Life Support (PALS) course for UCM, and has been instrumental in transitioning the course to a simulation-based format that trains over 250 learners a year.
Peter H. O’Donnell, MD is an Assistant Professor in the Section of Hematology/Oncology in the Department of Medicine at the University of Chicago. After completing his MD at the Pritzker School of Medicine, he spent his intern year in internal medicine at the University of North Carolina before returning to UCM for completion of his residency, followed by fellowships in hematology/oncology and clinical pharmacology and pharmacogenomics. Dr. O’Donnell is the director for the MS2 course Pharmacology and has been most successful in bringing clinical relevance and dynamic teaching to this foundational course. He serves as a clinical preceptor for the hematology/oncology inpatient consult service student rotation, and has served as a faculty preceptor for Clinical Skills 2 since 2011. He also teaches in the CPPT course. In addition, he has been a lecturer for a variety of college and PhD courses, in addition to precepting a wide range of residency and clinical fellowship rotations. Aside from his clinical duties, Dr. O’Donnell spent six years as a volunteer attending physician at Maria Shelter Women’s Clinic, and has mentored many students throughout his time at UCM.

Beth Plunkett, MD’97, MPH is a Clinical Associate Professor and the Director of Research in the Department of Obstetrics and Gynecology at NorthShore University HealthSystem. A graduate of the Pritzker School of Medicine, Dr. Plunkett completed her residency at the Northwestern University Feinberg School of Medicine and continued there for her fellowship in maternal-fetal medicine and an MPH degree. While at Northwestern, Dr. Plunkett received numerous accolades for her teaching, including the Resident Teacher Award, a Searle Fellowship at the Searle Center for Teaching Excellence, and multiple Excellence in Teaching Awards. In 2008, she began at NorthShore as a Clinical Assistant Professor and soon became the Site Director for Graduate Medical Education, a post she held until earlier this year. Throughout her time at NorthShore, Dr. Plunkett mentored numerous medical students and housestaff, and has been awarded for this work with an AOA Volunteer Clinical Faculty Award and a Golden Apple Teaching Award.
Husain Sattar, MD’01 is an Associate Professor of Pathology at the University of Chicago. After completing his MD at the Pritzker School of Medicine, he stayed at UCM to complete his residency in combined anatomic and clinical pathology, followed by a Chief Resident year in 2003-04 and a clinical fellowship in surgical pathology. Dr. Sattar has achieved worldwide renown for his single-author pathology textbook, Fundamentals of Pathology, or Pathoma, as it is more widely known. Over 5,000,000 hours of the book’s accompanying videos have been viewed on the Pathoma website, speaking to the global impact of Dr. Sattar’s work. Dr. Sattar serves as current Section Head of the Endocrinology segment in Clinical Pathophysiology and Therapeutics (CPP&T), and the Associate Director of that same course, He is currently the Lead Surgical Pathologist on the Breast Pathology Service at UCM, the Clerkship Director for MS3 and MS4 Pathology rotations and electives, and the Director of the Breast Pathology Fellowship. He is beloved by Pritzker students: Dr. Sattar has been awarded “Favorite Faculty” five times—so far—and has been given the Preclinical Teaching Award four times.

Katherine Thompson, MD’05 is an Assistant Professor of Medicine in the Section of Geriatrics at the University of Chicago. A graduate of the Pritzker School of Medicine, Dr. Thompson completed her residency and Chief Residency here at UCM followed by a fellowship in geriatrics. From 2009-2016, she was the Assistant, and then Associate Director of the Internal Medicine Residency Program, and is now the Director of the fellowship program in geriatrics. Invested in developing her training in medical education, Dr. Thompson completed a MERITS Fellowship in 2011, and attended the Harvard Macy Program for Educators in the Health Professions shortly after. Dr. Thompson has excelled at creating healthcare programs that concurrently provide care to elderly adults and create learning opportunities for students and housestaff. She is the co-director of the Successful Aging and Frailty Evaluation (SAFE) clinic at the South Shore Senior Center, where students, faculty, and allied health professionals work together to perform testing and screening on clinic patients. She is also the Project Director on a Geriatric Workforce Enhancement Program grant entitled “South Side Healthy Aging Resource Experts Network,” which engages community-based clinicians and healthcare facilities in the South Side.
Resident Satisfaction with Practice Incorporation of Non-Physician Providers in an OB/Gyn Resident Clinic

ADRIANNE DADE, MD; ANITA BLANCHARD, MD; DANIELLE YOUNG, MPH

STATEMENT: To evaluate resident satisfaction with the use of non-physician providers in clinical teams.

OBJECTIVE: Duty hour restrictions, educational priorities, and increased patient loads demand resident physician time. Academic medical centers must find creative ways to balance increasing patient centered demands while protecting resident time.

DESCRIPTION: Obstetrics and Gynecology (OB/GYN) residents were surveyed using questions from an institution-wide employee satisfaction survey. Questions were categorized into five themes: communication, patient care, burnout, education, and overall satisfaction with residency program. All questions were asked on a 1-5 Likert scale with 1 being “strongly disagree” and 5 being “strongly agree.” One question was asked negatively and responses were inversely coded (1=strongly agree, 5 = strongly disagree) for analysis. The higher the average score, the more favorable view residents held of the theme. Descriptive statistics were reviewed.

RESULTS: All 35 residents completed the survey. Overall, residents had a favorable opinion of working with Non-Physician Providers (NPPs). High levels of satisfaction were observed in communication (cumulative mean = 4.04), education (cumulative mean = 4.29) and satisfaction with the program (mean = 4.6). 90.9% of residents agreed or strongly agreed that NPPs improve education and service obligations; 88.6% similarly responded that NPPs improve compliance with duty hours. All residents agreed or strongly agreed that NPPs reduce stress loads in clinic and that interprofessional teams are effective.

CONCLUSION: Incorporation of NPPs in residency programs may help meet education and service obligations and compliance with duty hours without compromising communication or program satisfaction.
Medical Student Resilience and Stressful Clinical Events During Clinical Training

JENNIFER HOUPY, MD; WEI WEI LEE, MD, MPH; JAMES WOODRUFF, MD; AMBER PINCAVAGE, MD

STATEMENT: Medical students face numerous stressors during their clinical years, including difficult clinical events. Fostering resilience is a promising way to mitigate negative effects of stressors, prevent burnout, and help students thrive after difficult experiences. However, little is known about medical student resilience.

OBJECTIVE: To characterize clinical medical student resilience and experiences with difficult clinical events.

DESCRIPTION: Anonymous electronic surveys were provided to all third year (MS3) and fourth year (MS4) medical students at the University of Chicago Pritzker School of Medicine in the spring of 2016 to assess resilience, need for resilience skills training, experiences with difficult clinical events, and burnout. Resilience was assessed using the 10 item Connor Davidson Resilience Scale (CD-RISC 10). Burnout was assessed using the non-proprietary single-item burnout measure used in the Physician Work Life Study.

RESULTS: 62/94 (66%) MS3s and 55/83 (66%) MS4s completed the survey. The mean resilience score was 28.21±6.37 (range 10-40, possible range 0-40, 40 indicating most resilient) and lower than in a general population sample (32.1±5.8, p<0.001). Mean resilience was higher in males (30.47±6.14 vs. 26.43±6.02, p=0.001), MS4s (29.68±5.98 vs. 26.91±6.47, p=0.023), students reporting no burnout (30.44±5.44 vs. 25±6.29, p<0.001), and students who felt able to cope with difficult clinical events (29.47±5.91 vs. 22.98±5.93, p<0.001). There was no significant difference based on age, undergraduate major, or path to medical school.

Over 80% of students had experienced the following clinical events: dealing with difficult patients, difficult family discussions, systems issues, poor team dynamics, chronic narcotic patients, and difficult encounters with other staff. 54.7% had experienced medical errors. Students found poor team dynamics most stressful. Most students reflected on difficult clinical events often (70.5%) and would prefer to discuss events with their team later that same day (61.9%). Only 4.8% of students preferred not to discuss them with their team at all. 90.5% had talked to peers about difficult clinical events while only 37.1% had discussed them with team attendings and 60.0% with residents. More MS4s than MS3s had spoken about the events with attendings (48.0% vs. 27.3%, p=0.043) and residents (72.0% vs. 49.1%, p=0.017). 58.7% agreed that difficult clinical events affect their wellbeing. Students comfortable discussing medical errors (30.48±5.99 vs. 25.14±5.64, p<0.001) or stress and burnout (29.36±5.90 vs. 25.37±6.91, p=0.01) with peers were more resilient.

Most students believed resilience training would be helpful (63.5%) and most beneficial during MS3 year (65.7%). The topics most often identified as important included coping with difficult team interactions, finding meaning in daily work, and dealing with disappointment.

CONCLUSION: Clinical medical student resilience was lower than in the general population but higher in MS4s and students reporting no burnout. Students had some insight into their resilience level. Most thought resilience training would be helpful. When students experienced difficult clinical events, poor team dynamics were most stressful. Students discussed difficult clinical events with peers more than with attendings or residents. Students comfortable speaking to peers about stress and burnout and medical errors were more resilient. More curricula promoting medical student resilience are needed.
Early Birds Working Night Owl Shifts: Intern Experience On Night Float Rotations and Relationship With Chronotype

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STATEMENT: Night float rotations are described in the literature as particularly difficult for residents. Duty hour restrictions have increased the frequency of night float rotations, especially for interns. It is important to assess interns’ experience on night float to identify factors contributing to worsened health, burnout, and patient errors. Intern chronotype, or behavioral manifestations of underlying circadian rhythms, may influence interns’ experience of night float. No studies have yet evaluated the interaction between an intern’s chronotype and their experience on night float rotations.

OBJECTIVE: To improve understanding of interns’ perspectives of night float, and explore the impact of an intern’s personal chronotype on their night float experience. Results will be utilized to design an intervention to improve night float resident satisfaction and wellbeing and minimize fatigue and errors.

DESCRIPTION: Internal Medicine, Pediatric, and Med-Peds interns were surveyed at the end of their intern year to assess their experience on night float on residents. Interns were also asked to complete the brief Morningness/Eveningness Questionnaire to determine their chronotype.

RESULTS: Survey response rate was 80.3% (49/61). Overall, residents find it difficult to adjust between night and day schedules, with 57.1% (n=28/49) reporting difficulty adjusting to the night schedule and 63.3% (n=31/49) reporting difficulty adjusting back to the day schedule following night float. Interns reported requiring an average of 3 days to recover from night float (SD=1.9, range 1-9). Most interns reported that they were in a worse mood during night float (44.9%, n=22/49), and their interactions were worsened with family (69.4%, n=34/49) and friends (71.4%, n=35/49).

28.6% interns reported they are more likely to make an error on night float than during a day shift (n=14/49). Factors that often or always had a negative impact on patient safety during night float included experience (26.5%, 13/49), fatigue (24.5%, 12/49), handoffs (22.4%, 11/49) and workload (18.4%, 9/49). However, 69.4% of interns reported their workload was manageable at night (n=34/49).

Despite reporting difficulties with mood and schedule adjustments, roughly half of residents are satisfied or very satisfied with the learning on night float (53.1%, n=26/49), their performance caring for patients on night float (63.3%, 31/49), and night float overall (51.0%, 25/49).

Residents mostly did not fit into a specific chronotype (61.2% were neither type, n=30/49). 18.4% were morning types (n=9/49), and 18.4% were evening types (n=9/49). If an intern was either a morning type or evening type (as opposed to neither chronotype), they were significantly more likely to report difficulty adjusting back to the day schedule after night float rotations (U= 177, p = .020) and lower satisfaction with night float overall (U=176, p = .040).

CONCLUSION: Interns on night float rotations find it difficult to adjust between night and day schedules, report worse mood and worse interactions with family and friends, and report concern that fatigue, lack of experience and workload negatively impacted patient safety. Most residents do not fit into a specific chronotype, but those that do may have more difficulty adjusting back to day schedules and lower satisfaction with night float rotations.
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A Survey on Recent Medical School Graduate Comfort with the Level 1 Milestones

MICHAEL E. PETRAVICK, MS4; DOUGLAS R. DIRSCHL, MD

STATEMENT: The Next Accreditation System implemented five levels of milestones for orthopaedic surgery residents in 2013. The Level 1 milestones were noted as those “expected of an incoming resident.” While the milestones were intended for assessing resident progression and readiness for independent practice, this designation can also be used to assess how well prepared graduating medical students are for beginning an orthopaedic surgery residency. It is not currently known if medical school graduates who match into orthopaedic surgery meet these Level 1 milestones.

OBJECTIVE: The objective of this study was to assess the comfort levels with the Level 1 milestones of recent medical school graduates who matched into orthopaedic surgery.

DESCRIPTION: One hundred twelve recent medical school graduates who matched into orthopaedic surgery were surveyed using a seven point scale in June 2015 about their comfort with the Level 1 milestones associated with eight orthopaedic conditions spanning an array of subspecialties. Responses were grouped based on comfort with individual milestones, with orthopaedic conditions (e.g. carpal tunnel), or with broader categories spanning orthopaedic conditions (e.g. imaging). Responses of 1 (“Very Uncomfortable”) to 4 (“Neutral”) were classified as “not comfortable,” and those from 5 to 7 (“Very Comfortable”) were classified as “comfortable.” A milestone was classified as a “not comfortable milestone” if at least 33% of graduates gave it a “not comfortable” response. An orthopaedic condition was classified as a “not comfortable condition” if at least 33% of its total responses were “not comfortable.” A category was classified as a “not comfortable category” if at least 33% of the responses were “not comfortable.”

RESULTS: Sixty-six graduates (58.9%) responded. Of the 60 milestones surveyed, 45 were classified as “not comfortable milestones.” Six out of eight orthopaedic conditions were classified as “not comfortable conditions,” and 67% of graduates had four or more “not comfortable conditions.” The eight broader categories had “not comfortable” percentages between 30% and 65%.

CONCLUSION: Most recent medical student graduates who matched into an orthopaedic surgery residency are not comfortable with multiple Level 1 milestones even though they are expected to be upon beginning residency. Changes to fourth year medical student education in orthopaedic surgery may be necessary to close this knowledge gap.
Abstracts
Creating a Culture of Trauma-Informed Care: An Interprofessional Training Workshop for Medical Providers

MEREDITHE MCNAMARA, MD, MS; RACHEL CANE, MD, PHD; BRAD STOHLBACH, PHD

STATEMENT: A trauma-informed health system is one in which all parties involved recognize and respond to the impact of traumatic stress on those who have contact with the medical establishment. The goal of such a system is to infuse and sustain trauma awareness, knowledge, and skills into its culture and framework to facilitate recovery and resiliency. However, few providers feel equipped to do so and have not received formal training. The University of Chicago Medicine (UCM) is a major provider of healthcare for residents of the South Side of Chicago, where extreme violence is a part of many children’s everyday lives. Comer Children’s Hospital treats more than four times the national average of children affected by violent trauma. An institution-wide educational initiative to address this knowledge gap among providers has previously not existed. This initiative is a workshop on trauma-informed care geared towards an inter-professional audience of healthcare workers caring for pediatric patients exposed to violence.

OBJECTIVE: The objectives are framed by the Five Points of Trauma-Informed Care, which were developed for this curriculum. Participants will be able to: 1) Safety: describe one thing they can do to give patients the message that they are safe; 2) Screening: understand the importance of screening for trauma-exposure and have increased comfort in doing so; 3) Understanding Context: describe one way in which a trauma-informed lens explains seemingly irrational and frustrating patient and family behavior; 4) Avoid Re-traumatization: describe one way they can minimize potential triggers that may cause patients and families to re-experience trauma; 5) Discharge Planning: understand resources for patients affected by violence and utilize them effectively, assure that patients understand their plan of care after hospitalization.

DESCRIPTION: A team consisting of a clinical psychologist, two pediatricians, a social worker and teen survivors of gun violence developed a workshop on trauma-informed care. The Five Points of Trauma-Informed Care were developed as the cornerstone of a didactic portion. Those who had survived violent injury and/or their family members then led a dialogue with participants about their experiences. Survivors were coached prior to participation by a trauma-intervention specialist and were received monetary compensation for their time. Pre- and post-surveys were conducted among participants.

RESULTS: Surveys assessed participants on a scale of 1 through 10 on their self-perceived capabilities for each of the Five Points of Trauma-Informed Care for 49 participants. Participants indicated that self assessment of ability to (1) ensure safety improved by a score of 0.9 (SD 2.8), (2) screen patients for trauma exposure improved by a score of 1.8 (SD 2.6), (3) understand context improved by a score of 1.6 (SD 2.2), (4) avoid re-traumatization improved by a score of 1.8 (SD 2.3) and (5) prepare patients for safety and healing after discharge improved by a score of 2.2 (SD 2.3).

Free response sections of surveys demonstrated that participants felt they lacked knowledge and resources for providing trauma-informed care prior to attending the workshop. Feedback on the role of violence survivors who told their stories was overwhelmingly positive. Participants were also able to identify barriers to practicing trauma-informed care in the course of their everyday work.

CONCLUSION: Response thus far has shown that providers recognize the need for a trauma-informed approach to caring for patients affected by violence but feel poorly equipped to provide it. Medical providers are eager for the training opportunities this workshop provides, as well as the chance to learn about the hospital experience directly from survivors. Our initial results on the self-perceived efficacy of these workshops are encouraging, but not yet statistically significant. Survey data will continue to be collected from further trainings planned over the coming months, and a qualitative analysis will be performed to assess the free-response portion.
GALEN and the Grades: A Propensity Score Matching Analysis of Exam-to-Exam Performance Before and After Introduction of a Performance-Tracking Application

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STATEMENT: The Gross Anatomy Learning Evaluation Network (GALEN) is a web application developed as part of a broader quality improvement and technology initiative for the Human Body Course at the Pritzker School of Medicine. Since it was previewed in Fall 2014, GALEN has been used to enhance test quality and communicate examination results to students. The introduction of this tool, in line with broader trends to introduce technology into medical education nationwide, invited investigation as to whether the availability of an application for tracking performance could in turn influence student scores on exams.

OBJECTIVE: Because the students came from different class years and were not randomized to the intervention, there was an obvious need to adjust for selection bias in the study. Propensity Score Matching (PSM) is a tool used to pair items from respective treatment and control groups in observational studies. By allowing researchers to match elements based on covariate analysis, PSM can help to support causal arguments in interventions where subjects have not been randomized. In recent years, PSM has gained traction as an accepted tool for evaluation in education and medical care studies, and was used here to determine whether there were test-vs.-test performance differences for the pre-intervention (2014) and post-intervention (2015) groups.

DESCRIPTION: In this retrospective study, first-year anatomy course written exam grades were used to generate exam-to-exam differences for comparison. The tests studied were from five units, starting with Thorax and followed in succession by Abdomen, Pelvis, Head & Neck, and Upper Limbs. Differences for each individual student were calculated for each the four chronologically successive pairs (e.g.) Abdomen exam score – Thorax exam score, Pelvis exam score – Abdomen exam score, Head & Neck exam score – Pelvis exam score, Upper Limbs exam score – Head & Neck Exam Score. Students with incomplete exam data were excluded from analyses. To pair students for the propensity score match, publicly available data was used to aggregate students by variables that could influence test results: (i) Gender (female vs. male / not female), (ii) Category of university attended (private vs. public), (iii) Time spent from undergraduate education to enrollment in medical school (0 – 1 year, 2 – 3 years, 4+ years), (iv) Post-baccalaureate program attendance (no vs. yes), (v) Undergraduate major (biological sciences, non-biological sciences / mathematics, other), and (vi) Thorax exam score. T-test comparisons of unmatched data and data processed via propensity score matching were performed using R, Version 3.2.3.

RESULTS: Out of 178 students in the 2014 (n = 90) and 2015 (n = 88) cohorts, a total of 157 were included in the unmatched analysis. For each of these students, there were four exam-to-exam differences, yielding a cumulative pool of 628 differences. For the unmatched data, the Upper Limbs – Head & Neck difference was statistically significantly different lower for the Fall 2014 students (mean = 3.73) compared to the Fall 2015 students (mean = 8.29) (p < 0.001). However, none of the other differences were statistically significant. Matching of the 2014 and 2015 data in the MatchIt package in R yielded a total of 78 pairs with 156 of the 157 students included. Subsequent t-test analysis of matched data again yielded a statistically significant result for the Upper Limbs – Head & Neck difference when 2014 (mean = 3.71) and 2015 (mean = 8.29) (p < 0.001) but none of the other differences were statistically significant.

CONCLUSION: Looking at the 2014 and 2015 data, there does not appear to be a consistent pattern of improvement from exam to exam seen after introduction of GALEN though the significant jump in performance from Head & Neck to Upper Limbs near the end of the course invites the possibility that successive use of GALEN across units could have contributed to a statistically significant gap between 2014 and 2015 results.
A Novel Approach to Undergraduate Medical Student Nutrition Education: Engaging, Connecting, and Teaching Through an Online Platform, The Palate

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STATEMENT: Given the current chronic disease epidemic all healthcare providers are called upon to deliver nutritional counseling and advice to their patients. However, some residents and student-physicians feel ill equipped to counsel their patients on nutrition. During undergraduate medical education prior to specialty selection there exists an ideal time frame to deliver broad-based, comprehensive nutrition education. Currently, no uniformed or structured methodology exists for delivery of nutrition education. Nutrition curricula are highly variable among institutions and implementation depends on a variety of factors-institutional culture, funding, faculty involvement, and facilities. A recent survey found that 86/121 of US medical schools fail to provide the recommended minimum 25 hours of nutrition education.

OBJECTIVE: To create a longitudinal, interactive online platform to address the shortage of adequate nutrition education in undergraduate medical education.

DESCRIPTION: We founded The Palate, an online-peer reviewed publication that connects undergraduate medical students and faculty from across the country who are interested in nutrition. Faculty serve as ‘Nutrition Experts’ and aid in the peer-review process as well as provide an advisory role to the publication. This publication seeks to inspire a commitment to the complete integration of nutrition in the future medical careers of our readers. The accessibility of this platform allows medical students to learn, engage, and collaborate with one another and to understand the interactions between nutrition, public health, and long-term health.

RESULTS: Twenty-five medical students from 15 institutions serve on our editorial board. Nine faculty members from six institutions serve on our faculty advisor board. At time of submission, ten articles have been published and the website has had over 4,000 page views.

CONCLUSION: As a result of developing an online, accessible, student created educational tool, The Palate is able to establish a unified medical student voice in the field of nutrition, shape the conversation on nutrition, our food environment, and provide tools for medical students to become lifelong active leaders of nutrition education and public health research.
STATEMENT: Medical students act as peer or near-peer educators in nearly every US medical schools, and peer teachers and learners alike benefit educationally and professionally from peer teaching programs. However, only 44% of medical schools offer formal teaching skills training to peer and near-peer teachers. Pritzker does not currently offer a formal teaching skills training program for peer educators in courses in the Scientific Foundations of Medicine courses, and the need for such a program has not been assessed.

OBJECTIVE: This study set out to understand students’ assessments of their own preparedness for peer educator roles and to characterize the training or teaching preparation that students currently receive before peer educator roles. The study also investigated students’ attitudes toward a potential teaching skills training program for peer educators.

DESCRIPTION: The study surveyed sophomore, junior, and senior medical students at the Pritzker School of Medicine between May and June 2016 via anonymous electronic survey instrument based on literature review and expert guidance. Descriptive statistics were performed. A focus group of eight senior medical students with peer educator experience was conducted using the 4D model of appreciative inquiry and qualitative statistics were performed.

RESULTS: The survey collected 36 responses, of a total of 89 possible respondents, representing 50 unique peer educator roles. 22% of survey respondents reported receiving some kind of teaching skills training before acting as a peer educator. 72% of respondents agreed with the statement “TAs would benefit from a teaching skills training course.”

Eight senior medical students participated in the focus group. Coding analysis started with 78% inter-rater agreement that increased to 100% on discussion. Focus group participants identified modeling teaching skills on previous TAs and reviewing course content as key sources of preparation for the peer educator role. Focus group analysis revealed learner assessment, prioritizing course material, engaging with struggling learners, and conducting didactic teaching sessions as essential skills for peer educators.

CONCLUSION: Most Pritzker medical students do not receive teaching skills instruction prior to beginning their role, and peer educators do not feel prepared for their teaching roles. Peer educators identified learner assessment, engaging with struggling learners, and small group facilitation as skills that require improvement. Medical students are in favor of a teaching skills training course for peer educators.
STATEMENT: Medical students serve as peer educators at medical schools throughout the United States. However, fewer than half of medical schools provide formal training to students on teaching skills and Pritzker does not currently include such a training program prior to peer education experiences. The need for and content of such a training program have not been evaluated.

OBJECTIVE: The objectives of this study were to assess the ideal content identified by course directors for peer educators and to evaluate course director opinion on the need for a peer education training program. Additionally, the study looked to determine the most important teaching skills for peer educators. Finally, the ideal format of a training program was assessed.

DESCRIPTION: The study surveyed all scientific foundations in medicine course directors at Pritzker between May and June 2016 via an anonymous online survey constructed with expert guidance and a literature review. Descriptive statistics were performed. A focus group of 4th year medical students using the 4D model of appreciative inquiry was conducted and qualitative analysis was performed.

RESULTS: The survey had a response rate of 75% (8/12 course directors). Only 1 course director described providing formal training to the PE’s of the course. All respondents reported that PE’s would benefit from a teaching skills workshop. The three most important teaching skills for PE’s to possess according to course directors were: 1) teaching in an unstructured environment, 2) assessing learner needs, and 3) using educational technology.

A total of eight 4th year medical students participated in the focus group. Coding analysis started with 78% coder agreement that improved to 100% on discussion. Important logistical barriers to PE performance are varying or unclear course director expectations and difficulty working with fellow peer educators. The students suggested that an in-person teaching workshop that taught problem solving strategies for common issues that arise while teaching would be useful. Additionally, they suggested the use of role model instructors and OSTEs.

CONCLUSION: All course directors agreed that a PE teaching workshop would benefit PE performance. Course directors and PE’s recommend the teaching workshop be in-person, provide troubleshooting strategies, and utilize OSTEs and role model instructors. The most important skills to focus on in the workshop are how to teach in an unstructured environment, assess learner needs, and use educational technology.
Medication Management in Older Adults:
A Physician-Pharmacy Trainee Collaboration

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STATEMENT: Adverse drug reactions (ADR) are a common and preventable cause of hospitalizations in older adults. Therefore, educating health care providers and trainees on appropriate medication management is a priority. The Liaison Committee on Medical Education (CME) requires medical education programs to prepare medical students to work collaboratively with health professionals from other disciplines.

OBJECTIVE: This study aimed to improve medical student confidence in documenting a patient’s complete medication list, and improve students’ attitudes towards collaboration with pharmacists and pharmacy trainees.

DESCRIPTION: All second-year medical students rotated through the Medication Therapy Management (MTM) clinic, working with pharmacists, pharmacy residents, and visiting pharmacy students for one 90-minute session during their Clinical Skills 2 course. During the MTM experience, medical students practiced documenting the complete medication list for at least one patient. Before and after the MTM experience, students completed a survey covering their confidence in documenting a complete medication list, the usefulness of the MTM experience, and questions from the Student Perceptions of Physician-Pharmacist Inter-professional Clinical Education (SPICE) instrument regarding their attitudes about physician-pharmacist collaboration. Participants also completed a three-month follow-up survey.

RESULTS: Response rate for the before and after surveys was 93% (85/88 total students). Forty-six percent (39/85) of respondents demonstrated documentation of a complete medication list during the experience, while 34% (29/85) provided incomplete documentation, and 20% (17/85) did not document a medication list. On a 5-point Likert scale (1=not at all confident, 5=extremely confident), confidence in documenting a patient’s complete medication list increased from mean score of 2.4 (SD ±0.7) before the experience to 3.6 (SD ± 0.7, p-value <0.0001) after. The response rate for the three-month follow up survey was 80% (70/88). When analyzing the subset of students who completed both the before survey and the three-month follow up survey (N=58), mean confidence still showed an increase from 2.4 (SD ±0.8) before the MTM experience to 3.4 (SD ±0.7) three months later (p<0.0001). When looking at students’ attitudes about physician-pharmacist collaboration, there was a statistically significant increase in agreement with three of the ten statements on the SPICE tool before the MTM experience compared to after: “My role within the interdisciplinary team is clearly defined,” “I understand the roles of other professionals within the interdisciplinary team,” and “Clinical rotations are the ideal place within their respective curricula for medical and pharmacy students to interact.” On a 5-point Likert scale (1=strongly disagree, 5=strongly agree), students agreed that the experience improved understanding of how physiology impacts drug choice and dosing (mean 4.4 ±SD 0.7), improved their ability to identify potentially inappropriate and high-risk medications (4.2 ± 0.7) and improved their ability to document a medication history and perform a medication review (4.4 ± 0.7).

CONCLUSION: Participation in a pharmacist run MTM clinic resulted in a statistically significant increase in medical student confidence in documenting a patient’s medication list and an improvement in students’ understanding of pharmacist and physician roles within the interdisciplinary health care team.
Longitudinal Student Self-Assessment of EPA Development

KRIS SLAWINSKI, MA; JEANNE FARNAN, MD, MHPE

STATEMENT: With the AAMC’s mandate for Entrustable Professional Activities (EPAs) as performance standards of medical students’ readiness for graduation, and ability to perform as first-year residents, how will Pritzker assess and track students’ skills acquisition of these EPAs?

OBJECTIVE: This intervention was conceived to provide a means of assessing EPAs within existing events, through student self-assessment of clinical skills, by aligning EPA elements to corresponding Standardized Patient (SP) checklist items, and comparing results to students’ self-assessment.

DESCRIPTION: The self-assessment was presented as an Individual Learning Plan (ILP) consisting of components of EPAs 1-6, and attached to the existing end-of-third year Clinical Practice Experience (CPX). The CPX is a 12 station Objective Structured Clinical Examination (OSCE) that mimics the Step 2CS, and provides formative feedback to learners. Students rated each skill as “Perceived Well Done,” or “Skill to Improve,” based on observed performance in the CPX. Critical functions of each EPA were matched to skills in the checklist assessments. Additionally, an ILP in the MS1 Clinical Skills final assessment addressed elements of EPA 1, and the MS2 Clinical Skills final assessment addressed EPAs 1-5, to establish a longitudinal means of tracking students’ perceptions through their three years of clinical skills.

RESULTS: All students in years one through three participated in the ILP in their respective OSCEs. Focusing on critical functions of the specific EPAs, results noted:

While 83% of rising MS4 students indicated they could perform an accurate history well, only 50% expressed confidence performing a complete head-to-toe patient assessment, though 79% endorsed comfort performing a problem-focused patient assessment. Eighty-three percent felt able to perform a complete and accurate history, whereas 36% felt confident performing a complete and accurate physical examination. Finally, only 68% of rising MS2s expressed confidence performing a complete and accurate history.

Regarding cost awareness and logistic skills like writing orders and prescriptions in the electronic medical record, only 30% felt they could integrate elements of cost awareness into testing ordering, and 85% identified both writing orders in the electronic medical record and writing prescriptions in the electronic medical record as skills to improve upon.

When asked for plans on how to address their perceived knowledge gaps, these rising MS4s proposed several examples for opportunities for skills practice and skill development, including honing these skills during sub-internships, clinical electives such as emergency medicine and consult services, and other scholarly opportunities.

CONCLUSION: Self-perceived development of critical functions of EPAs have been recorded longitudinally for three classes of medical students at the end of required OSCEs. Using this model, we can describe self-perceived skill acquisition along the continuum of development of clinical skills, specifically regarding those in the newly described EPAs. In addition, we can identify areas of curricular development, specifically where students have expressed a need for improvement, like the electronic health record. Future work will potentially focus on integrating these self-assessments into conversations between students and their career advisors as they plan their fourth-year schedules and beyond.
A Collaborative Model for Improvement of Point-of-Care Testing in Medical Student–Operated Free Clinics

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STATEMENT: Medical student-operated free clinics (MSFCs) provide indispensable services to medically at-risk populations and valuable training to medical students. While substantial oversight has traditionally been provided by affiliated medical schools and clinical mentors, laboratory services provided in MSFCs have not traditionally received equally structured oversight.

OBJECTIVE: The objectives of this model are three-fold. First, is to provide under-served Chicago southside populations with quality and reliable care and testing. Second, is to train medical students and residents to be exceptional physicians. Third, is to increase communication between clinicians and clinical pathologists for mutual edification and collaboration.

DESCRIPTION: Waived-testing certification (according to the Clinical Laboratory Improvement Amendments) was obtained for each of the three MSFCs, with clinical faculty serving as lab directors. Site-specific policies and procedures were created for each test, followed by training and competency of all medical student volunteers by the pathology residents.

RESULTS: Within three months, our small team transformed the laboratory services at three MSFCs into legal, CLIA-certified, quality controlled, protocol-based operations. Our work has improved the quality and reliability of patient care, and ensures compliance with legal and professional standards, and provides a rare opportunity for both medical students to participate in and for pathology residents to practice sound laboratory management. In addition, clinical colleagues gained insight into the role of the laboratory, how it functions, and the efforts required to continue operation.

CONCLUSION: Both patients and health professionals of all levels have benefited from this model of practice and serves as a viable model to improve the quality of MSFCs and the quality of medical education. We have also demonstrated that this model can be implemented in both established and new clinics. Pathology residents will continue to follow-up with the clinics to ensure proper and adequate training and clinical lab management education is being provided. This is especially important in MSFCs since the turnover rate of the participants is higher than in established, more traditional sites of care.
Abstracts

Medical Student Run Free Clinic Intervention to Increase Capacity for Asian Immigrant Health

PHILLIP J. HSU, GRADUATE STUDENT; LUCY XU, MS2; JIA GUO, MS2; MARK CHEE, MS2; CINDY ZHANG, MS2; KAREN E. KIM, MD, MS

STATEMENT: Asian American immigrants in the Midwest face significant challenges in achieving health equity. To address this, in 2015, we established an academic community partnered Bridgeport Free Clinic (BFC); a student-run health clinic to serve the Asian immigrant community, and to build capacity for Asian health at our urban academic medical center.

OBJECTIVE: The three goals of our BFC intervention are 1) to ensure equitable access to Chinese immigrants; 2) build a pipeline of culturally competent providers and trainees; 3) enhance the health system capacity for care delivery.

DESCRIPTION: Using a community based participatory approach, we conducted a community needs assessment to evaluate access to care, health status, and health resources. In addition, we assessed faculty capacity for Asian health using a qualitative approach.

RESULTS: 116 patients were seen over sixteen sessions; 48.6% were uninsured and 58.3% did not have a PCP. Over 50% were newly insured through ACA and 9 patients were subsequently navigated to partner FQHCs for follow up care. 9 faculty staffed the clinic and had no prior experience with Asian immigrant health.

CONCLUSION: If successful, this intervention will be an important bidirectional model for ensuring the right to quality healthcare. Moreover, the BFC as an intervention has resulted in a pipeline of faculty who are able to provide culturally competent care to these growing limited English communities and to reset the priority to address gaps in care for the Asian immigrant community at our medical center.
The Influence of the Medical School Curriculum on Primary Care Specialty Choice

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STATEMENT: Despite a looming primary care physician shortage, the number of medical students electing to pursue primary care (PC) is hardly changing. This is despite the ongoing expansion of medical school enrollments across the U.S. This suggests that medical school expansion may not result in concomitant growth in the PC workforce, and that an increase in the proportion of graduates entering PC is needed. While many factors influence medical students’ interest in the various specialties, those within the context of undergraduate medical education (i.e. the curricula) remain especially opaque.

OBJECTIVE: This study aims to further elucidate the connection between the medical school curriculum and changes in medical students’ interest in PC between their first and fourth years. We investigated whether there is a substantial difference in the supportiveness of curricula at ten medical schools, and whether that difference was associated with the number of students interested in PC specialties.

DESCRIPTION: To complete the study, we developed an interview instrument to assess the curriculum of the medical schools participating in the INSPIRE study (Investigating Specialty Preferences In tRainEes) – a multi-institutional project evaluating what considerations impact medical students’ specialty interest over the course of training. This instrument was administered to faculty members at the participating institutions who were familiar with their school’s curriculum. This data was then analyzed in conjunction with survey data on students’ specialty preferences collected through the INSPIRE study. Using the curriculum survey responses, a Primary Care Supportiveness Score was tabulated for each institution, and the schools grouped into two categories: supportive (“PC-supportive”) or neutral (“PC-neutral”) towards primary care training. These categories were used to compare how student interest in PC specialties changed from the first to fourth year in each group.

RESULTS: Seven out of the ten curriculum representatives completed the online curriculum survey. Based on whether their PC Supportiveness Scores were above or below the mean for all surveyed institutions, four schools were determined to be “PC-supportive” and three schools “PC-neutral.” Among the PC-supportive schools, average interest in PC specialties (Internal Medicine, Pediatrics, Med-Peds and Family Medicine) fell from 45.5% at matriculation to 41.6% post-Match, a 3.9 point decline. By contrast, among PC-neutral schools, average interest increased by 1.2 percentage points (45.8% to 47.0%).

The disparity in PC interest was only slightly decreased if Internal Medicine was excluded from the analysis: among PC-supportive schools, interest declined from 22.3% to 19.4% (-2.8 percentage points); among PC-neutral schools, interest increased from 24.6% to 26.2% (+1.6 percentage points).

CONCLUSION: These findings suggest that efforts to inculcate a more supportive environment for primary care training at certain medical schools may not be having the intended effect of increasing interest in a primary care career. Especially for medical schools striving to produce more primary care physicians, increased investigation into the efficacy of their curricula may be in order. More broadly, for policy makers concerned with increasing the number of primary care physicians, research and resources may be better shifted away from undergraduate medical education and toward improving the perceived deficiencies of a career in primary care.
Comparison of Medical Student Self-Assessment and Faculty Assessment of Personal and Professional Development Skills

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STATEMENT: How do student self-assessments of personal and professional development (PPD) competencies compare to PPD assessments completed by faculty about the students with whom they work?

OBJECTIVE: 1) To survey students about their own PPD and faculty about the PPD of the students with whom they work; 2) To compare student self-assessment with faculty assessments; 3) To compare ratings given by different faculty members about the same student

DESCRIPTION: After conducting a literature review, we developed a 48-question survey consisting of Likert scale questions and open-ended questions assessing PPD goals. A parallel survey with 8 items was developed for faculty to evaluate relevant PPD domains during the second year clinical skills course and Scholarship and Discovery (S&D) experience. We administered self-assessments to second year students in February 2016. Clinical skills preceptors and S&D mentors were surveyed in the spring and summer of 2016.

For data analysis, we compared the student self-assessments to matched faculty assessments from their second year clinical skills preceptors and S&D mentors. Using paired t-tests, we analyzed the data for agreement between student self-ratings and faculty ratings. We also analyzed the data for agreement between the two different faculty raters.

RESULTS: There were 28 students for whom there was a self-assessment, a clinical skills preceptor assessment and a S&D mentor assessment. Self-assessment scores were lower than clinical skills preceptor assessments for each of the 8 PPD competencies that were asked about. The only competency for which there was not a significant difference between self-assessment and S&D mentor assessment was “Complying with rules and regulations”. Self-assessment scores were significantly lower than S&D mentor assessment for each of the other 7 PPD competencies. There was no difference between clinical skills preceptor assessments and S&D mentor assessments for any of the 8 PPD competencies. Of the 28 S&D mentor assessments included in the data set, 17 (60.7%) rated the student as “Highest performance (top 10%)” in comparison to other medical students with whom the mentor had worked previously. Eight (28.6%) rated the student as being “Above average performance (11-25%)”, 1 (3.6%) rated the student as being “Average performance (26-50%)” and 2 (7.1%) said they had never before mentored a medical student on a scholarly project.

CONCLUSION: On first glance, the data might appear to suggest that students are overly critical in performing self-assessments. However, the fact that 60.7% of S&D mentors rated their students as being in the top 10% of students indicates that the discordance between student self-assessments and faculty assessments may originate on the side of the faculty. In support of this idea is the fact that thirty-five out of fifty six (62.5%) faculty assessments gave a rating of 5 out of 5 for all competencies. The data matches trends in the literature, which have shown grade inflation in other domains of medical education. This is important because it makes it impossible to determine the accuracy of student self-assessments and also does not provide students with ideas of skill areas they need to focus on improving. As such, grade inflation hinders student development.
LGBTQ Medical Education at Pritzker School of Medicine: Knowledge, Attitudes, and Comfort of Students

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STATEMENT: The inclusion of LGBTQ-related content in undergraduate medical education and increased exposure to LGBTQ patients has been shown to improve medical students’ behavior, knowledge, and comfort when caring for sexual and gender minority patient populations. Despite these findings, a 2009-2010 survey of Deans at medical schools in Canada and the U.S. determined a median of 5 hours of total required LGBTQ-related curricular content. In addition, a recent study of medical students’ level of preparedness and comfort caring for LGBTQ patients found that most medical students (67.3%) described their school’s LGBTQ-related curriculum as “fair” or worse in terms of breadth and depth of topics covered. A lack of material focused on LGBTQ patients within the curricula of medical schools may be contributing to lack of culturally competent care delivered to sexual and gender minority patients.

OBJECTIVE: Our objective was to evaluate LGBTQ-related curriculum at the University of Chicago Pritzker School of Medicine (PSOM).

DESCRIPTION: We administered a 32-item survey to Pritzker students assessing their knowledge, bias, and comfort level on LGBTQ health topics in the spring of 2016. No compensation or incentive was offered for participation. The survey was exempted by the University of Chicago IRB.

RESULTS: Demographics: The survey was distributed via e-mail to the entire PSOM student body (n=401). The survey response rate was 33% (134/401). Of the respondents, there were 45 first-year students (34%), 31 second-year students (23%), 12 third-year students (9%), 37 fourth-year students (28%), and 9 MSTP students (7%). 77 respondents were cis women (57%), 56 respondents were cis men (42%), and 1 respondent was a transgender woman (1%). 23 respondents (17%) reported being a member of the LGBTQ community, and 111 respondents (83%) identified as straight.

Key Findings: There were no significant differences observed in the level of knowledge related to LGBTQ health topics based on the class year of respondents (7.6(0.9) vs. 7.8(1.0) vs. 7.9(0.9) vs. 8.1(1.0); p= 0.20). In addition, 86% of the respondents reported a desire to learn more about LGBTQ health concerns. Among the respondents, there was more comfort with topics related to sexual orientation compared to gender identity. 87% of respondents reported comfort defining the difference between sexual orientation, sexual identity, and sexual behavior. In comparison, 76% of respondents reported comfort defining the difference between gender expression and gender identity, and only 44% of respondents reported comfort defining the difference between gender discordance, gender nonconformity, and gender dysphoria.

Almost a quarter of respondents (23%) reported that it was more challenging to gather an oral history from an LGBTQI person, and over a third (34%) reported that it was more challenging to conduct a physical exam on a transgender or intersex person.

CONCLUSION: The lack of improvement in knowledge related to LGBTQ health from first year to fourth year medical students, combined with the overwhelming majority of students that would like to learn more in this area, leads to the conclusion that there is an opportunity to enhance the PSOM curriculum related to LGBTQ health. Specifically, curricular development is needed related to gender identity and culturally competent care for gender minorities.
Assessment of Geriatric Competencies among Graduating Medical Students at Wuhan University
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STATEMENT: In recent years there has been major reform in China regarding medical education, with recent establishment of residency training programs. However there is no mandatory Geriatrics curriculum within national guidelines. We aimed to assess overall attitudes towards the field as well as familiarity with basic concepts in Geriatrics and competency among graduating medical students.

OBJECTIVE: We sought to ascertain learner reported exposure to core Geriatrics topics, attitudes towards Geriatrics as a specialty, as well as knowledge and competency in key core Geriatrics topics.

DESCRIPTION: We surveyed 190 medical students at the end of their 5th (final) year of medical school, from two affiliated hospitals of Wuhan University Medical School, 100 from Zhongnan (ZN) hospital and 90 from Renming (RN). The survey consisted of three components: Self-reported learning/exposure to Geriatrics competencies, attitudes based on agreement with given statements on a 4 point Likert scale, and a multiple choice test. Questions regarding learning/exposure and test questions were designed around AAMC 2007 Geriatrics Consensus Conference. All surveys were done in person in May 2014. Surveys were coded and analyzed in Microsoft Excel. Students T-test were used to compare difference in mean response rates between groups with P<0.05 as cut off for significance.

RESULTS: Self-reported learning/exposure to topics in Geriatrics ranged from 41% to 74% reported learning, with no statistically significant differences between the two hospital’s students. Highest reported learning was in age related changes in drug dosing and selection. Lowest was in use of Foley catheters and surveillance for pressure ulcers in the elderly. 76% of respondents agreed that they were ‘willing to treat older patients’, while 55% agreed that they felt confident in doing so. 57% reported adequate clinical training in care of older patients. 91% of respondents agreed that more specialized clinical experiences and courses are needed for medical students. Average score on Geriatric Competencies test was 46% for ZN students, 48% for RN students (p=0.45). Average score on Geriatric Competencies test was 50% for reform students, 46% for non-reform class students (p=0.03). Questions with lowest proportion of correct scores were on the unique presentations of common conditions in older adults including UTI (7%), delirium (12%), and MI (19%).

CONCLUSION: In our survey of fifth year graduating medical students we found low self-reported exposure/learning, with only roughly half of students reporting learning for a given core topic of Geriatrics. Students had very favorable attitudes towards Geriatrics as a field and specialty, however endorsed a general lack of preparation in caring specifically for older adults. Competency exams had generally poor scores, with the lowest performance around diagnosis and treatment of specific Geriatric conditions. Differences between reform and non-reform classes reached statistical significance, however this is unlikely to represent clinical significance. More training specifically targeted towards Geriatric populations should be included in medical training.
Describing What You See: Morphology Description Practice Sessions For Medical Students

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STATEMENT: While the skin is the most visible organ of the body, it is frequently overlooked during routine physical examinations. A core skill that medical students must develop when evaluating dermatological complaints is the ability to accurately describe skin lesions. This skill helps students actively “look for” rather than passively “see” skin lesions, and synthesize details of visual inspection. In dermatology, morphology descriptions also serve as a foundation for developing a differential and making a diagnosis.

Medical students are given formal lectures in describing lesion morphology, but often do not have the opportunity to practice this skill extensively, which is required for mastery. Several studies have shown that supplementing training with clinical images and simulations improves performance on assessments. We designed morphology description sessions to allow medical students to practice describing morphology and become fluent in the rich language of dermatology.

OBJECTIVE: The main goal of this intervention is to help medical students develop their dermatological vocabulary and practice describing lesion morphology. In addition to improving visual literacy these sessions will also build student interest in dermatology.

DESCRIPTION: The first few sessions of our program will consist of lectures that introduce students to the vocabulary and terminology used by dermatologists. Students will also be taught a systematic method of describing skin lesions. In subsequent sessions, students will be shown pictures of common skin lesions gathered from dermatology atlases and will be given the opportunity to describe what they see using an anonymous polling software. Immediately afterwards, the students will be given feedback on their descriptions. Anonymous polling will encourage student participation and will reduce the stress of making mistakes.

All response data will be tracked longitudinally with an anonymous student identifier, allowing for performance monitoring over time, and assessment of the efficacy of our program. Additionally, we hope to use this longitudinal data to better understand how students with different levels of experience and interests observe and describe skin morphology.

RESULTS: The first session was held on October 25th, 2016. Sessions will occur approximately once a month for the rest of the academic year. Results to date are included on the poster.

CONCLUSION: The ability to accurately describe skin lesion morphology is an important skill for all physicians, and is critical for accurate diagnosis in dermatology. Medical students may improve at this skill through structured morphology description practice sessions and immediate feedback.
**STATEMENT:** The specialties that medical students choose to pursue have significant downstream effects on the availability of physicians, which in turn reduces efficiency within health systems. Over the past several decades, medical students and residents have increasingly gravitated towards careers that they perceive to be more 'lifestyle-friendly' as well as careers that are more specialized. Despite the importance of understanding career choice, little data exists on how student specialty decisions change over the course of medical school.

**OBJECTIVE:** The objective of this study was to describe current trends in specialty preferences during medical school. We also set out to investigate the lifestyle and demographic factors that relate to student decisions to change their preferred specialty.

**DESCRIPTION:** First-year medical students were surveyed about lifestyle and specialty preferences in the fall of 2012. These same students were surveyed again after the Match during their fourth year in the spring of 2016. Medical students from a nationally representative sample of 10 different medical schools were invited to participate. The survey contained 31-items and included sections on specialty preferences, perceptions of what creates a good physician lifestyle, and demographic, educational, and debt burden data. Data from 2012 and 2016 was paired for each student by using a unique identifier provided by the student. Data was paired if all the demographic data, the month of birth, and at least 1 of the 2 letter components in the identifier matched, thus allowing for data to be paired when the identifier included a typographical error.

**RESULTS:** The 2012 survey response rate was 65% (997/1530), the 2016 response rate was 50% (788/1575), and the paired response rate was 29% (351/1226). Sixty-five percent of students in the paired sample switched specialty preferences. The rates of fourth year students expressing interest in a specialty who had expressed interest in that same specialty in their first year was 75% for Orthopedics, 60% for Pediatrics, 20% for Internal Medicine, and 0% for Pathology. These four specialties illustrate the wide variety of trends observed for this metric across all the specialties.

There were no significant differences in lifestyle preferences for students whose specialty preferences remained constant between the first and fourth year compared to those whose preference changed. Ethnicity was the only significant difference demographic difference ($p=0.01$). Twenty-four percent of non-white students maintained a stable specialty preference, while 40% of white students reported the same specialty preference.

**CONCLUSION:** The overall rate of specialty preference switching in this study was consistent with older studies, however the specialties that students switched into and out of were different. In addition, the variety of trends found across specialties points to the fact that factors contributing to these trends may be different for each specialty. This study is the first to investigate demographic and lifestyle preference associations with specialty preference stability; the association between specialty preference stability and ethnicity warrants future research to study why this association exists.
ENGAGING PRITZKER STUDENTS IN INTER-PROFESSIONAL CHRONIC DISEASE MANAGEMENT: INTEGRATING THE CURRICULUM AND DEFINING VALUE ADDED ROLES WITHIN THE RECOVER QI PROGRAM

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STATEMENT: Competency in patient-centered care and inter-professional collaboration have been recognized as critical components of medical training by accreditation organizations. However, traditional preclinical medical education models provide few opportunities to gain such competencies. Undergraduate medical training largely focuses on physician-led disease management, affording students brief and fragmented exposure to patients’ experience of illness. In addition, students are offered few chances to work as a part of inter-professional teams, with their roles often limited to observation. An ideal way to provide enhanced opportunities for students to meet the important inter-professional competencies is by partnering student learners with existing inter-professional clinical teams. The University of Chicago recently implemented a comprehensive Chronic Obstructive Pulmonary Disease (COPD) readmissions reduction program, which has become a model for inter-professional chronic disease management.

OBJECTIVE: The chronic disease longitudinal program strives to address inter-professional competency gaps through a patient-centered longitudinal experience for first year medical students. The initial aims were to (1) obtain a curriculum that is additive and synergistic with existing infrastructure and learning objectives and (2) determine the value added roles for the MS1s on this track. The ultimate program goals to be piloted this year will be to provide students the opportunity to contribute to patient care as part of an inter-professional chronic disease care team; improve students’ ability to integrate basic science knowledge of pathophysiology with clinical care; and foster empathy through an understanding of patients’ experiences.

DESCRIPTION: The chronic disease longitudinal program will pair medical students with patient partners to co-navigate encounters with care providers over the course of an eight-month period. This program will align with the existing Pritzker MS1 Longitudinal Program (LP) on the patient-centered LP track. Uniquely, the program focus will be on chronic disease management and students’ meaningful contribution to an inter-professional team. The program will embed into the COPD intervention, an ideal environment to foster the longitudinal experience, providing a functional inter-professional team whose members will serve as preceptors. Pre- and post- program knowledge, skills, and attitudes will be assessed.

RESULTS: Leadership of the existing MS1 Longitudinal Program and patient-centered track has approved the addition of this patient-centered care opportunity to the formal program. A team of first year medical students are determining the value-add role, with preliminary results including conducting home visits to assess barriers to accessing care and performing a survey of community resources.

CONCLUSION: With the support of the Academy of Medical Educators grant, existing clinical programs can be harnessed to provide learning opportunities that fulfill competency needs. Working with and learning from existing parallel programs allows for synergistic infrastructure and learning across the medical school, limiting unnecessary re-creation of systems or redundant educational opportunities. Working with medical students to develop the program is critical as both MS2s who have prior LP experience and MS1s who have vested interest in their upcoming learning can ensure that the program is not only responsive to the curriculum competencies, but also aligned with student learning goals. The next steps are to pilot and assess this MS1 program, while developing the MS2 and MS4 program educational components.
Competency-Based Assessment in MS1 Anatomy Course: Beyond P = MD

RICHARD NEWCOMB, MS4; OLUSEYI FAYANJU, MS4; COURTNEY ORSBON, GRADUATE STUDENT; CALLUM ROSS, PHD

STATEMENT: The Association of American Medical Colleges has emphasized that assessments in competence-based education should be valid, reliable, feasible, motivational, and acceptable. In 2013, the Human Body course at the Pritzker School of Medicine implemented a competence-based evaluation framework. We hypothesize that student performance across competency domains of Gross Anatomy, Tissue Histology, Medical Imaging, and Human Development will be internally consistent, predict overall exam performance, and permit early identification of at-risk students.

OBJECTIVE: This was a retrospective observational study of first-year anatomy course written exams to assess the reliability, feasibility, and utility of the course’s competency-based assessment model.

DESCRIPTION: Data from 18 exams spanning three academic years were collected between August 2014 and October 2016. Exams for Thorax, Abdomen, Pelvis, Head & Neck, and Upper and Lower Limbs units were selected. Development and categorization of the Gross Anatomy, Tissue Histology, Medical Imaging, and Human Development competency domains has been previously described. Students with incomplete exam data were excluded. Overall and competency-specific exam performance were primary outcomes of interest. Underperformance was defined as scores less than or equal to 65%. Cronbach’s alpha was calculated to determine reliability of competency areas. Correlation and simple linear regression analyses were used to determine discriminability of competency areas. Kaplan-Meier survival analyses were performed to assess differences in exam performance by competency performance.

RESULTS: 1230 exams containing 97,571 questions from 250 students were examined. Gross Anatomy and Tissue Histology were more frequently tested than Medical Imaging and Human Development. Gross Anatomy had the highest internal consistency with alphas ranging from 0.82-0.90 followed by Tissue Histology (0.71-0.75), Human Development (0.56-0.61), and Medical Imaging (0.23-0.64). Performance in each competency area correlated with overall exam performance (Gross Anatomy strongest – R-squared adjusted 0.74; Human Development weakest – R-squared adjusted 0.24; all p-values <<0.001). Underperformance in individual competency areas was much more prevalent than underperformance on the overall exam (526 v 20). Underperforming on at least one individual competency area on the Thorax exam predicted overall underperformance on Thorax and subsequent exams (sensitivity of 93.8%, specificity of 75.2%). Kaplan-Meier probability estimates of exam performance across the course differed between students who passed all competencies on the initial exam and students who underperformed on at least one competency on the initial exam (99.4% v 79.4%, log-rank – p < 0.0001).

CONCLUSION: Competency-based assessments of Gross Anatomy and Tissue Histology were highly reliable. All competency areas demonstrated discriminatory ability. Performance in competency areas positively correlated with overall exam performance. Underperformance in competency areas early in the anatomy course could serve as screening tool to identify students who may struggle as the course progresses.
**Using Experience Sampling Method to Compare Engagement & “Flow” in TEACH Research**

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**STATEMENT:** “Flow” describes a mental state of operation in which an individual is fully immersed and focused on the task at hand. Flow is achieved under conditions that promote perceptions of high challenge and high skill.

In previous studies, Barbara Schneider has demonstrated that adolescents experiencing flow report higher than average levels of concentration, enjoyment, happiness, and strength and are more likely to feel that what they are doing is important to their future goals.

Flow can evaluate the effectiveness of pre-medical pipeline programs and offer insight into factors contributing to the “leaky pipeline” of the health research career track.

**OBJECTIVE:** Training Early Achievers for Careers in Health (TEACH) Research is a six week summer program aimed at exposing high-school students to careers in healthcare research to help diversify the healthcare workforce. TEACH Research is divided into a treatment group (TEACH) engaged in realistic career activities and multi-tiered mentorship and a control group (FIELD) that receives a typical, college-oriented summer science program. We hypothesize that the TEACH program design will engage ‘Flow’ for TEACH students, leading to higher levels of perceived ‘Flow’ (challenge, skill, concentration, enjoyment, happiness, and strength).

**DESCRIPTION:** Experience Sampling Method (ESM) survey provides detailed information about participants’ real-time interpretations of their experiences. 17 TEACH and 14 FIELD students from the 2015 and 2016 cohorts completed the ESM survey hourly from 9am-4pm during weeks 1 and 3 of the program to assess perceived growth or deterioration of critical Flow skills.

**RESULTS:** Overall, FIELD students reported higher initial averages than TEACH students across all Flow variables, with Field reporting means of 3.15 and 5.51 for challenge and skill respectively, compared to 2.45 and 4.35 reported by TEACH. Despite lower initial averages, TEACH students reported higher averages across all Flow variables in week 3 compared to FIELD students. Interestingly, TEACH students reported a positive mean change across all variables between weeks 1 and 3, while FIELD students reported a negative mean change across all variables. TEACH students demonstrated significant differences in mean change in skill, concentration, and enjoyment scores compared to FIELD (p<0.05).

**CONCLUSION:** The high percentage of activities TEACH and FIELD students identified as “neither” work nor play suggests additional opportunities for engagement in both sides of the program. In addition, the small sample size of two cohorts will benefit from future work which will extend to include analysis of earlier TEACH cohorts to determine validity and generalizability.
Evaluation of Effectiveness of Spreading Teen Research-Inspired Videos to Engage Schoolmates (STRIVES)

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STATEMENT: Diversity in the healthcare workforce is key to serving an increasingly diverse patient population. Training Early Achievers for Careers in Health (TEACH) Spreading Teen-Research Inspired Videos to Engage Schoolmates (STRIVES) aims to increase interest in clinical research among minority youth to promote diversity in the healthcare workforce through peer to peer messaging via social media. Past research suggests that baseline interest is a key driver in predicting sustained career interests and intentions.

OBJECTIVE: TEACH STRIVES aims to increase baseline interest in clinical research careers through video messages crafted by participants in the Training Early Achievers for Careers in Health (TEACH) Research pipeline program. Our aim is to measure the spread and evaluate the effects of the video and peer-led social media campaign.

DESCRIPTION: TEACH program students are taught to conduct focus groups of their peers to identify inspiring messages and media content that help shape the video design. TEACH students also recruit friends to take pre and post- campaign online surveys. This Career Orientation Survey (COS) aims to ascertain career interests, intents and general career knowledge pre- and post-social media campaign using mostly 5-point Likert scale questions.

RESULTS: The 2015 and 2016 campaigns received 466 cumulative views. 80% of peers found the video entertaining and 84% felt videos were a good way to disseminate career information. 54% felt that the video positively impacted their interest in clinical research careers. Additionally, there was a marginal but insignificant increase in intent to become a researcher or a doctor following the campaign.

CONCLUSION: Videos deployed through social media are an engaging and effective primer to inspire students to pursue pipeline programs and other career exposures. While the video campaign did not increase intent to become a researcher, it positively impacted student interest in and perceptions of clinical research careers.
Assessment of Entering Residents on Consultation Performance at University of Chicago Medicine

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STATEMENT: Communication is essential in the medical field, as recognized by the Liaison Committee on Medical Education (LCME) and Accreditation Council for Graduate Medical Education (ACGME), and has significant patient safety implications; the Joint Commission cites errors in interprofessional education as cause of the majority of sentinel events. Consultations are a frequent and important area of communication often occurring between professionals of different specialties. However, formal education in the process of requesting a consultation is lacking at all levels of medical education.

OBJECTIVE: We aimed to show that training improves resident’s ability to request consultations, as well as demonstrate the utility of an online training module that incorporated the 5Cs of Consultation Communication.

DESCRIPTION: Incoming residents were surveyed on the amount of training in consultation communication they had received in medical school as well as satisfaction with training. We trained all incoming residents at the University of Chicago across all disciplines on a standardized approach to consultation communication: the 5C’s Model of Consultation Communication. This was done first with an online review module and later in person via simulation with a consultation observed structured clinical experience (COSCE) at the institutional Graduate Medical Education (GME) orientation. The COSCE consisted of residents requesting consultation via phone using standardized cases to a trained faculty receiver who acted as a mock consultant, who then evaluated the consultation using a checklist of the 5Cs as well as a Global Rating Scale (GRS).

RESULTS: Two-thirds of 123 responding residents (66.4%) reported prior training in consultation training during their undergraduate medical education (UME), and 78% reported having experience requesting consultations in medical school. However, only 44.8% of residents reported that they were satisfied with their UME training in consultations. Prior to completing the online module, resident satisfaction with training correlated with self-evaluated preparedness. On a 5-point Likert scale, residents who were trained but unsatisfied reported preparedness as a mean of 3.33 compared to residents who were trained and very satisfied, who reported preparedness as 4.88 (p<0.01). Although not statistically significant, satisfaction with training was also correlated with improved performance on online modules as measured by number of attempts to achieve mastery (defined as 100% performance on post-module quiz). Unsatisfied residents required a mean of 3.33 attempts to achieve mastery compared to highly satisfied residents who required a mean of 2.19 attempts. Mean preparedness increased following online module completion in the untrained group from 2.79 to 4.0 (p<0.01). Post module, trained and untrained residents reported similar levels of preparedness, and had similar performances as rated by trained faculty evaluators on the 5Cs checklist and GRS.

CONCLUSION: Current training in consultations in UME is varied, ranging from lacking completely to comprehensive and effective. Improved standardized training is needed, as many medical students have experience with consultations but less than half are satisfied with their training. Further, satisfaction with this training is indicative of preparedness to request consultations. Additionally, the online module, using the 5Cs of consultation as a standardized teaching mechanism, was effective at preparing residents to request consultations.
Facilitating Patient-Centered Learning Through a Longitudinal Patient-Partnered Clinical Experience

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**STATEMENT:** Patient-centered care is widely supported as an aspirational aim for health systems, with evidence to support improved patient satisfaction, treatment adherence, and clinical outcomes. Unfortunately, traditional educational models are not designed to foster a patient-centered approach to care, with few opportunities to experience care from the perspective of a patient or to engage longitudinally in their patients’ care.

**OBJECTIVE:** We developed the Patient Centered Longitudinal Experience (PCLE) as a special track within the required first year Longitudinal Program at the University of Chicago. PCLE was developed in partnership with the Comprehensive Care Program (CCP), a primary care program which focuses on patients at high risk of hospitalization, and features provider continuity across inpatient and outpatient settings. The objectives of the program were to improve students’ understanding of patients’ experiences with medical illness and patients’ interactions with the healthcare system.

**DESCRIPTION:** Sixteen first year medical students were selected for participation based on interest in the program and consideration of a primary care career. Patient partners were selected using the following criteria: frequent healthcare visits, poor social support, and perceived willingness to work with students. Groups of two students were paired with two patient partners and an inter-professional team (physician, nurse, social worker, clinic coordinator) to co-navigate their patients’ interactions with the healthcare system. Over a six month period, students attended patients’ primary care and specialist appointments; attended visits to non-physician care providers; visited patients during inpatient admissions; completed a home visit; contacted patients to check-in by phone; and met with a faculty preceptor monthly. Accompanying classroom-based sessions were focused on developing skills with goal setting and making a home visit.

**RESULTS:** Students submitted patient encounter logs (n=16) and evaluation forms (n=14); 14 patients responded to a phone survey. Over a 6 month time period, students had a mean of 4.2 contacts (range 1-11) with each of their patient partners; logistical barriers (conflicts with class, canceled visits) precluded more frequent contacts. Seventy-one percent of students reported making a personal connection with patients; 100% had an improved understanding of challenges patients face in navigating the healthcare system; 57% reported increased interest in a primary care career; 21% reported they were an important part of the healthcare team. From the qualitative feedback about lessons learned, students frequently mentioned gaining insights into difficulties patients faced in navigating the health care system, and learning the value of longitudinal patient-provider relationships. All patients described feeling comfortable working with students. Patients enjoyed students’ company and attentiveness and their role as teachers to their students; a few described the students as active participants in their care.

**CONCLUSION:** This pilot test of a novel patient-centered longitudinal experience supports the program’s feasibility and its potential to foster patient-centered perspectives by exposing students early in their medical training to both the challenges that patients face in managing their medical illnesses and navigating the healthcare system, as well as the value of longitudinal, patient-provider relationships. The program can be enhanced by addressing logistical barriers and more clearly defining an active role for students.
Developing and Implementing an Interprofessional Discharge OSCE for Second Year Medical Students

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STATEMENT: Accrediting bodies for both undergraduate and graduate medical education have put forth goals to improve interprofessional practice. In particular, the Liaison Committee on Medical Education (LCME) states that “the core curriculum of a medical education program must prepare medical students to function collaboratively on health care teams that include health professionals from other disciplines as they provide coordinated services to patients.” It remains unclear how best to prepare medical students for interprofessional practice.

OBJECTIVE: This study describes the development and implementation of a novel discharge Objective Structured Clinical Examination (OSCE) for second-year medical students that highlights interprofessional communication during transitions of care.

DESCRIPTION: Based on a successful, low-fidelity GME ‘role play’ that we piloted with our interns, we have begun to implement this novel, high-fidelity discharge OSCE that has three roles: intern (played by a medical student), physical therapist (PT educator), and a patient (standardized patient). The student is asked to discharge the patient, who is coached to express concerns over his/her physical deconditioning and need for a walker at home. The student will then have a face-to-face encounter with the physical therapist to plan a safe discharge. During the debriefing, faculty observers will emphasize the importance of proactive communication with physical therapy during the time of a patient discharge.

RESULTS: A 5-point Likert scale of agreement was given to 3rd and 4th year Pritzker students (n=138, response rate 83%) to serve as historical controls. In response to the statement “I feel prepared to participate in a patient discharge,” the mean Likert scores were 3.8 and 3.9 for 3rd and 4th year students, respectively. In response to the statement “I communicate effectively with other health care team members at the time of discharge,” mean scores were 3.4 and 3.8, respectively. Lastly, in response to the statement “I am satisfied with my prior training in interprofessional education,” mean scores were 3.1 and 3.5, respectively.

CONCLUSION: Our control data show much room for improvement in training medical students in interprofessional communication. Based on the success of our interprofessional interactive role play for incoming interns in which over half of interns reported the exercise improving their ability to communicate effectively with interprofessional team members, we are hopeful for promising results. Moreover, the enthusiastic collaboration from physical therapy in designing this discharge OSCE has made it a true interprofessional exercise from its inception.
From Tip to Tail: Interprofessional Simulation Training of Critical Care Flight Nurses and Pediatric Intensive Care Teams

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STATEMENT: Transport of critically ill pediatric patients requires effective communication between multiple care providers in addition to understanding complex pathophysiology at the bedside of patients. Simulation provides an innovative approach to improve this type of complex interprofessional patient care. This project highlights specially designed interprofessional simulation scenarios aimed at improving communication skills and medical knowledge during the transport and hand-off of critically ill pediatric patients from patient pick-up, transport via helicopter, to patient drop-off in the Pediatric Intensive Care Unit (PICU).

OBJECTIVE: Our transport team consists of flight physicians and highly skilled critical care flight nurses trained to provide bedside care to the sickest pediatric patients. Our PICU team consists of critical care fellows, nurses and attendings that are responsible for triaging phone communication with the outside hospital and flight crew, as well as for taking over care of transported patients upon arrival to the PICU. Given the high stakes of caring for critically ill pediatric patients, our goal was to implement this interprofessional simulation to improve communication skills and medical knowledge, both of which are essential to providing top care during critical transport/hand-off situations.

DESCRIPTION: The main goals of our simulation specifically aimed to: 1) Promote participants to practice clear and concise communication over the phone when triaging a patient, as well as at the bedside during hand-off from the transport team to the PICU team; 2) Improve providers’ ability to rapidly identify sepsis in a pediatric patient and implement standard of care resuscitative efforts.

To aid in the delivery of our educational goals both video and audio tapes were used in the group debrief.

RESULTS: Flight nurses described the chance to work in an interprofessional capacity as an excellent opportunity to practice phone communication and communicating key information during patient hand-off with the receiving PICU team. The PICU team found the simulation valuable in the areas of effective phone triage and communication, understanding risks and potential complications during transport, and effectively coordinating hand-off within the PICU. In addition, the PICU fellows valued the transport ride along experience and everyone appreciated the interprofessional simulation as an opportunity to understand everyone’s role during patient care.

CONCLUSION: In addition to reviewing medical management of pediatric sepsis, the interprofessional team practiced communication at multiple points during the scenario (e.g., the PICU fellow was able to practice communication with the referring physician, the flight team during transport as well as receive report during the patient hand-off in the PICU and the flight team was able to practice communication with the PICU fellow before and during transport and with the receiving PICU team at patient hand-off). In addition, we identified critical systemic points for improvement during patient care, including: designing a more methodical telephone report/triage; ensuring a more formalized patient hand-off, and, adding antibiotics to the flight team medical supply packs as to not delay administration when necessary.
I Need an Intraoperative Resident Feedback System

STAT! - Using Smart-Phones for Evaluations

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STATEMENT: Consistent and effective evaluation of resident operative performance poses an ongoing challenge for surgical education. A decade ago, we designed and introduced the Surgical Training and Assessment Tool (STAT) to track trainee operative performance. However, in recent years we have noticed decreased compliance with the use of STAT and hypothesized that this reflected problems with ease of use and time lag to submission of evaluations.

OBJECTIVE: We designed a resident survey to critique STAT and then used the responses to develop an updated system, STAT 2.0, that was smart-phone accessible and could provide our residency program with enhanced feedback on professionalism, intraoperative communication and trainee-to-trainee teaching.

DESCRIPTION: General surgery residents at our institution were surveyed regarding their perceptions of STAT using a 5-point Likert scale (1=strongly disagree, 5=strongly agree). Our program then developed a proprietary web-based, mobile accessible evaluation platform. The questions assessed each resident’s medical knowledge, technical skills, intraoperative communication, and professionalism. Questions on attending participation based on the Zwisch scale, case complexity and overall grade were also asked. At the conclusion of each case both the operating resident (self-reflection) and attending completed an evaluation of the resident’s performance. In the event of a teaching assistant (TA) case, the junior resident was evaluated by both the attending surgeon and the chief resident. Descriptive statistics were performed on the evaluation data and surveys.

RESULTS: The survey was completed by 26 of the 46 clinical and laboratory surgical residents (response rate: 56%). The responses are detailed in table one of the poster.

Our program piloted the new evaluation system over a one-month period. The median time for individual evaluation completion was 1 minute [1 – 3 minutes]. TA cases accounted for 33% of all evaluations. The residents tend to rate themselves at least 20% lower than the attending in technical skills, intraoperative communication and overall grade. The level of attending participation was shared by both groups. The senior residents rated the case as “more complex” than the attending surgeon in more than 25% of the evaluations.

CONCLUSION: General surgery residents at our institution desire an operative evaluation system that is concise and easily accessible through mobile devices. The STAT 2.0 evaluation system is facile and appears promising to provide trainees and the residency program with valuable feedback related to resident performance, attending participation, intraoperative communication and professionalism.
A Comparison of Tools for Evaluating Simulated Pediatric Trauma Team Performance

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STATEMENT: The resuscitation of a critically injured child is a rare event, making simulation an increasingly popular strategy for training physicians and nurses in pediatric trauma. The value of simulation-based medical education is subject to little debate. However, the most effective way to proctor simulated scenarios and provide constructive feedback to participants is still an area of active research. This lack of consensus has resulted in the independent development of several pediatric trauma simulation assessment tools across the US, each with its own strengths and weaknesses.

OBJECTIVE: The purpose of this study was to compare the performance of published pediatric trauma simulation assessment tools in order to identify the tool or assessment tool qualities that most reliably distinguish between high-performing and low-performing trauma teams. Given that there are presently no agreed-upon standards for a high performing trauma team, we were also interested in whether an evaluator’s subjective “gut score” of a scenario was predictive of objective trauma team performance.

DESCRIPTION: We selected ten trauma team scenarios from archived simulation footage of University of Chicago Comer Children’s Hospital trauma teams participating in simulated pediatric trauma scenarios. Trauma teams consisted of one emergency medicine resident, one surgery resident, and two emergency medicine nurses. Each scenario lasted approximately ten minutes. The scenarios were graded using four previously published pediatric trauma simulation assessment tools (Tools A, B, C, and D). The tools differed in the emphasis placed on team dynamics, procedural competency, and the thoroughness of the secondary assessment for scoring. Each trauma scenario was also given a subjective “gut score” (scale 1-10), based on how well the evaluator believed the team performed independent of the tool score results. We examined the range of scores given to a trauma scenario depending on the checklist used. We also determined which checklists were most strongly correlated with the “gut score” ratings.

RESULTS: Our preliminary results suggest that a given trauma team can be rated as both poor-performing or high-performing depending on the assessment tool used. We attribute these differences to variation in assessment tool emphasis. Assessment tools also varied in strength of correlation (R2) with gut scores. Tool A focused on the secondary assessment and had the weakest correlation with gut scores (R2 = 0.166). Tool B included a measurement of team dynamics, but placed a stronger emphasis on procedural competency (R2 = 0.616). This allowed well-performed procedures to compensate for poorly organized assessments and lack of clear leadership. Tool C placed the strongest emphasis on team dynamics and had the strongest correlation with gut score (R2 = 0.756). Thus trauma teams with organized assessments and vocal team leaders were able to compensate for poor procedural performance and incomplete secondary assessments. Tool D placed its emphasis primarily on procedural competency (R2 = 0.540).

CONCLUSION: These results suggest that educators should consider their scenario learning objectives before selecting an assessment tool, and that trauma team dynamics/communication may have a strong influence on perceived trauma team performance.
Sleep For Inpatients: Empowering Staff to Act (SIESTA): Impact on Hospital Staff Knowledge & Empowerment to Improve Inpatient Sleep

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STATEMENT: Although sleep is critical to recovery from acute illness, hospitalization is far from restful. Poor sleep while hospitalized can lead to cardiometabolic derangements and delirium, while also undermining patient satisfaction. In addition, 2 out of every 5 inpatients are at risk for undiagnosed obstructive sleep apnea (OSA), which can impact their overall health and recovery. SIESTA (Sleep for Inpatients: Empowering Staff to Act) is an NHLBI-funded educational program to empower hospital staff to assist patients in obtaining better sleep and improve their knowledge of sleep disorders. In previous work, we have shown patients reported fewer sleep disruptions and greater satisfaction with SIESTA.

OBJECTIVE: To assess the impact of SIESTA’s targeted education on hospital staff’s knowledge and perception of empowerment to improve inpatient sleep and screen for sleep disorders.

DESCRIPTION: Before the intervention, staff nurses, hospitalists and internal medicine residents completed surveys that contained multiple-choice questions to assess knowledge of inpatient sleep disturbances and OSA screening tools (i.e. STOP-BANG) and Likert items to determine providers’ perception of empowerment about improving the hospital sleep environment. All hospitalists and residents received targeted education via in-person seminars. Nurses in one general medicine unit that was designated as an intervention (SIESTA) unit received education, while nurses in another unit served as the control. Following the educational intervention, hospital staff, including nurses on the control unit, completed a post-survey with the same questions as the pre-survey. Percent correct for the multiple-choice style questions were calculated for each survey item pre and post-intervention. Results were compared by provider group via two-sample t-tests. To analyze the Likert items, data were dichotomized at a three-four cutpoint. Percent agreeing was calculated for each statement, and pre and post-intervention results were compared via Wilcoxon rank sum tests by provider group.

RESULTS: Pre-intervention, 77 residents (82%) and 28 hospitalists (74%), 19 intervention unit nurses (83%) and 16 control unit nurses (84%) completed the survey. Post-intervention, 77 residents (82%), 25 hospitalists (60%), 22 intervention unit nurses (96%) and 15 control unit nurses (79%) completed the survey. Compared to residents, nurses on the intervention unit and hospitalists, were more likely to identify the correct OSA screening tool (STOP-BANG) post-education (33% vs. 91% intervention nurses, 26% vs. 65% hospitalists, 56% vs. 70% residents). In addition, nurses on the intervention unit were more likely to correctly identify the most common patient-reported noise source as staff conversation post-intervention (44 vs. 77%, p=0.02), while the other groups remained largely unchanged. When examining staff empowerment to improve patient sleep, residents and hospitalists were more likely to report higher agreement post intervention (44% vs. 69% residents, p=0.01, and 25% vs. 60% hospitalists, p=0.02). Likewise, physicians were also more likely than nurses to report increases in doing what they can to improve sleep.

CONCLUSION: A targeted education program aimed for hospital staff can result in improved staff knowledge and empowerment for improving inpatient sleep. The differences in what nurses and physicians gained may highlight differences in baseline education and empowerment among the groups and a need for tailoring the intervention to different provider groups.
A Pediatric Hospitalist Rotation at a Community Hospital Improves Senior Resident Confidence and Highlights Differences in Setting

STEVEN BACHTA, MD

STATEMENT: Many residents begin their hospitalist careers at community hospitals affiliated with tertiary care centers. Resident education struggles to adequately expose residents to certain skills necessary for these positions such as triage, independent decision making and communication with outpatient pediatricians, and also in highlighting how these skills differ at a community hospital.

OBJECTIVE: Quantitatively assess resident confidence for several key hospitalist skills prior to and following a rotation in a community setting.

Quantitatively assess lessons learned from practicing in the community with regard to differences in practice setting.

DESCRIPTION: At Tufts Medical Center, senior pediatric residents at The Floating Hospital for Children can complete a rotation at Lowell General Hospital where they assume the role of an autonomous community hospitalist in preparation for their first job. At the beginning and end of the rotation, residents complete a survey ranking their confidence on a Likert scale (1-10) in the following areas: 1) independently caring for pediatric inpatients in the community setting; 2) triaging pediatric consults and admissions; 3) discussing transition of care with primary care providers at discharge; 4) billing for care of pediatric inpatients.

The survey also asks the residents to share lessons learned at the end of the rotation with regard to practicing in the community.

RESULTS: N = 10 residents (2013-2016); Caring for pediatric inpatients: Pre = 5.875, Post = 8.064; Triaging: Pre = 5.375, Post = 8.05; Discussing transition of care: Pre = 6.5, Post = 9.36; Billing: Pre = 2.5, Post = 7.33;

Sample of qualitative lessons learned:

“I learned what a tremendously valuable resource the PCP can be for the hospitalist. At Tufts, the senior residents very rarely speak to PCPs. By calling the PCPs, I received so much more of the patient’s medical history, which was incredibly helpful.

I did not expect to learn anything this month about how to triage a child as “sick” vs “not sick.” I thought I had learned that long ago in residency…However, I soon learned that my threshold for sick/not-sick was different in the community… This was in large part due to the fact that the PICU is 45 minutes away from the community hospital. This month I learned to triage children differently, and had a lower threshold for transferring them than I thought I would.”

CONCLUSION: This study shows that a rotation at a community hospital can improve self perceived confidence in the areas of independent patient care, triage, communication with primary care providers and inpatient billing. It also shows that residents exposed to the community setting learn how to tailor their practice to most effectively and safely use the resources in their hospital system. These are valuable lessons for physicians entering the hospitalist workforce and hopefully this study will lead to more resident experiences at community hospitals and research in the area of community pediatric hospital medical education.
Statement: During residency, surgeons in training must acquire certain operative skills to allow them to graduate and practice as a surgeon. During the five years, there is an increase in the complexity of the operative cases they are expected to perform. There has been a movement toward skills training outside of the OR. This allows consistent practice and repetition of technique which probably increases the residents skill during live surgery and decreases the learning curve. Different formats have been used for simulation skills training including off-hours time, whole day labs and open labs available when the resident gets time. Unfortunately these do not offer reliable skills training and practice. We sought to find a better way for surgical residents to get skills training.

Objective: We hypothesized that it was possible for a teaching institution to institute skills training in each clinical rotation and get resident and attending participation and that this would improve the residents skill in performing the simulated operation, as well as improving the residents skill and confidence in the OR.

Description: Surgical residents rotating on a clinical rotation at NorthShore University HealthSytem for at least 4 weeks were included. The resident had two hours of protected time per week in a dedicated simulation training lab. The curriculum consisted of case specific modules such as lap Cholecystectomy and included a pre-test, instruction and mentoring by an attending, followed by practice time and then a post-test. This curriculum became standard on all but one rotation starting July 2015.

Results: Four rotations had one module. Two had 100% completion rate and two had 90% completion. The minimally invasive surgery rotation had 4 modules and achieved 100% completion rate on all modules. On all modules the post-test scores were significantly higher than pre-test.

Conclusion: It is possible to institute an in-rotation skills curriculum and achieve a very high completion rate on all participating rotations. Skill in performing the simulated operation is significantly improved during the curriculum. Further research is needed regarding transferability of skills from lab to operating room.
STATEMENT: The increasing literature on case-based learning in post-graduate training has shown increased learner satisfaction with case-based curriculum, but the norm continues to be a lecture based format.

OBJECTIVE: Our aim was to create a case-based female pelvic medicine and reconstructive surgery (FPMRS) curriculum for obstetrics and gynecology (OB/Gyn) residents based on Accreditation Council for Graduate Medical Education (ACGME) milestones.

DESCRIPTION: We selected ACGME Ob/Gyn residency milestones that applied to FPMRS. Through an iterative process a series of 5 cases centered on core FPMRS topics were developed including: pelvic organ prolapse (POP) surgical management, POP office management, stress urinary incontinence, overactive bladder, and recurrent urinary tract infections. Cases focused on anatomy, physiology, diagnosis and treatment, urodynamics, and physical exam and included group worksheets on anatomy, POPQ and urodynamics. A survey for residents to qualitatively measure experience with both lecture based and case based curriculum was administered prior to instituting the new case-based curriculum and after 4 months of exposure.

RESULTS: Seventeen residents participated in the new curriculum and completed an average of five sessions. All residents completed the pre-curriculum survey, and 16 completed the post-survey. After instituting the new curriculum, the percentage of residents who felt prepared for FPMRS CREOG questions increased from 52.9% to 81.2%. The percentage of residents who felt better prepared to care for FMPRS clinic patients increased from 58.8% to 93.8%. Overall 87.5% of residents prefer case-based curriculum for increased depth of discussion and information retention.

CONCLUSION: A case-based FPMRS curriculum centered on ACGME milestones for OB/Gyn residents is feasible and preferred by participating residents.
STATEMENT: Burnout is experienced by many trainees, and resilience training has been identified as one promising method to combat burnout. In 2014, a curriculum on basic resilience skills was piloted with Internal Medicine (IM) interns at our institution. In 2015, we conducted a needs assessment of senior IM residents. Senior residents reported experiencing difficult clinical events regularly and preferred to discuss these events with their teams. This project aimed to create and pilot a curriculum on advanced resilience skills for senior IM residents and to promote resilience through leadership skills training and team-based debriefing after difficult clinical events.

OBJECTIVE: 1) Create a curriculum on team leadership skills for senior residents; 2) Create a framework for team-based reflection after difficult clinical events, and allow residents to practice this framework; 3) Measure the effect of this curricular intervention on resilience and burnout; 4) Assist residents in achieving the following ACGME milestones: monitors practice with a goal for improvement, and learns and improves via feedback.

DESCRIPTION: We developed a curriculum for senior residents that includes a review of basic resilience concepts, a skills workshop on team leadership, introduction of a framework for team-based reflection, and practice of team-based reflection following simulated cases. This curriculum was implemented during the 2015-2016 academic year, and a post-curriculum survey was collected to evaluate the effect of the curriculum on resilience and burnout.

RESULTS: 66.1% (41/62) of senior residents completed the pre-curriculum survey and 54.8% (34/62) completed the post-curriculum survey. Resilience was measured with the validated Connor Davidson CD-25 RISC scale, which ranges from 0-100 with higher scores indicating higher resilience. The mean post-curriculum resilience score was 74.06 ± 8.66 (range 53-96), which was higher although not statistically different (p=0.12) than the mean pre-curriculum resilience score of 70.78 ± 9.45 (range 44-93). There was no change in the proportion of residents who scored positive for burnout on a single item burnout question before (26.8%) and after (26.5%) the curriculum, p=1.00. After the curriculum compared to before, a higher proportion of residents reported having the skills necessary to help their team cope with difficult clinical events (82.4% v. 56.1%, p=0.025). 76.5% of residents found the sessions helpful, 58.8% reported using something they learned in the sessions, and 85.3% said the resiliency sessions should be continued with residents. There were also many positive qualitative comments, with residents citing that they liked sharing experiences and reflecting with their peers.

CONCLUSION: We created a curriculum on resilience skills for senior residents. While this curriculum did not have a significant effect on burnout or resilience measures, our study was limited by small numbers and a single institution. After the curriculum, residents increasingly reported having the skills necessary to help their team cope after difficult clinical events. The majority of residents found the sessions helpful and thought they should continue. Next steps include expanding to other programs and institutions, and implementing faculty development in this area.
Group Prenatal Visits: A Resident-Lead Pilot Study in an Federally Qualified Health Center (FQHC)

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STATEMENT: Group visits for routine prenatal care have been associated with reduced preterm birth, improved prenatal knowledge, and higher breastfeeding initiation rates (Ickovics, 2007).

OBJECTIVE: In November, 2015 we initiated a pilot group prenatal visit program at Lake County Health Department North Shore Health Center, in order to explore the benefits and challenges of group medical visits in a specific clinic setting.

DESCRIPTION: Two residents and three clinic staff underwent training in the CenteringPregnancy® model of group prenatal visits. We then created our own curriculum for group prenatal visits, based on the particular needs of our patients and logistical considerations. Goals of the group were to create a positive learning experience, valued by the participants and to discover what challenges arose in implementing this type of patient care. The curriculum was meant to address a range of topics pertinent to prenatal and postpartum health, including: common complaints of pregnancy, nutrition, breastfeeding, stress, contraception, stages of labor, and postpartum depression. Outcomes were measured with a survey of patient satisfaction addressing various elements of the group experience, such as communication barriers, adequate individual attention, value of the discussion topics, and value of participation in a group as opposed to individual care.

RESULTS: A total of eleven women with similar estimated due dates participated, seven of whom attended at least two visits. Four participants responded to a survey after they delivered, and all stated that they would choose a group visit option for a future pregnancy. One participant felt that it was somewhat difficult to communicate due to a language barrier, while the other three did not.

CONCLUSION: Though there are a number of associated challenges, group prenatal visits are a good alternative to routine individual visits for our patient population, and a beneficial component of resident education and experience.
STATEMENT: A key task of emergency medicine (EM) training programs is to develop a consistent knowledge of core content in recruits with heterogeneous training backgrounds. The traditional model for delivering core content is lecture-based weekly conference, however a growing body of literature finds this format less effective and less appealing than alternatives.

OBJECTIVE: We sought to address the challenge of delivering core content to heterogeneous trainees during weekly conference by conducting a needs assessment for a longitudinal intern curriculum for millennial learners.

DESCRIPTION: We surveyed all residents from the six emergency medicine programs in the greater Chicago area regarding the concept, format, and scope of a longitudinal intern curriculum.

RESULTS: We received 153 responses from the 300 residents surveyed (51% response rate). The majority of respondents (80%; 82% of interns) agreed or strongly agreed that a dedicated intern curriculum would add value to residency education. The most positively rated teaching method was simulation sessions (91% positive responses) followed by dedicated weekly conference time (75% positive responses) and dedicated asynchronous resources (71% positive responses). Less than half of respondents (47%; 26% of interns) supported use of textbook readings in the curriculum.

CONCLUSION: There is strong learner interest in a longitudinal intern curriculum. This needs assessment can serve to inform the development of a universal intern curriculum targeting the millennial generation.
Microsurgery One-on-One: A Customized Learning Experience
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STATEMENT: Microsurgery is an advanced technical skill, which requires specialized instruments, equipment, and expertise to optimally practice.

OBJECTIVE: Provide residents with the opportunity to practice microsurgical techniques one-on-one with attendings, tailored to their experience level in hopes of increasing their knowledge and confidence with technical skills.

DESCRIPTION: The course was funded by the Northshore Department of Surgery Research and Education Fund. The Northshore Surgical Skills laboratory was used for one day of microsurgical instruction using one-on-one microsurgical skills practice with attendings using a turkey thigh model. Residents watched interactive demonstrations and videos during break times. Residents filled out a survey assessing their self-perceived confidence with knowledge of microsurgery basics and comfort performing basic and advanced microsurgical techniques both before and after the course using a 5-point Likert scale for various statements relating to microsurgery knowledge and skill.

RESULTS: Eleven residents participated in the course. For data analysis, residents were stratified into experience levels based on how many microsurgery cases they had previously performed and their experience level under the microscope. Basic knowledge included: knowledge of microsurgical instruments, general information about the microscope, microscope setup, optimal positioning, and microscope troubleshooting. All residents improved in their basic knowledge during the course, with the least experienced residents improving the most. Interestingly, the residents with intermediate experience had higher post-course scores than the experienced residents. This may be because intermediate-level residents spent more time than experienced residents focusing on the interactive demonstrations, which taught basic knowledge. Across the board all residents demonstrated a lower confidence level in ability to troubleshoot the microscope and this skill showed the least gain after the course.

Basic techniques included: comfort assisting under the microscope, venous coupling, and sewing an artery using the 180-degree technique. All residents improved their confidence with basic skills. The novice and intermediate residents improved the most, and the experienced residents the least. Of note, the novices did not improve as much in their confidence with venous coupling as they did with artery suturing. This is very likely reflective of the lack of access to venous couplers for the course.

Advanced techniques included: comfort performing arterial anastomoses using the Aukland clamp, walk-up, running, and end-to-side techniques. Interestingly, intermediate level residents had much higher confidence scores than experienced residents with these techniques post-course, which may be indicative of the occurrence of a sophomore phenomenon. When residents were stratified by interest in pursuing a career in microsurgery versus not, those interested were least confident in their advanced microsurgery skills pre-course, but most confident post. In contrast, those not interested in microsurgery experienced little change in their confidence with these skills and actually decreased their confidence level in end-to-side technique post-course.

CONCLUSION: Overall, residents benefited by being able to spend one-on-one time practicing microsurgical techniques with attendings with the proper equipment in a low-stress environment. Residents are at various levels with respect to their knowledge and skill, and being able to tailor their experience through one-on-one teaching is beneficial. In the future we plan to assess resident experience pre-course to help curate their day so they will benefit most. Additionally, more instruction on microscope troubleshooting and having venous couplers available will improve the course.
Bridging the Gap: Creating an Interdepartmental Quality and Safety Engagement Curriculum for Trainees

AJANTA PATEL, MD, MPH; NANCY SCHINDER, MD, MHPE; MEGAN MILLER, MD; KRISTEN HIRSCH, MS; VINEET ARORA, MD, MAPP; JULIE OYLER, MD

STATEMENT: Recent guidelines from the Accreditation Council for Graduate Medical Education (ACGME) Clinical Learning Environment Review (CLER) recommend residents receive formal training in quality improvement and patient safety (QI/PS) and that curricula are developed in conjunction with institutional leaders in quality/safety. Assessment at The University of Chicago suggests that residents and fellows receive variable training in quality and safety.

OBJECTIVE: The aims of our curriculum were to: 1) Build trainees’ foundational knowledge of core principles of QI/PS; 2) Engage learners in institutional QI/PS priorities; 3) Meet CLER and ACGME recommendations for QI/PS education; 4) Evaluate effectiveness in achieving learning objectives.

DESCRIPTION: Based on a preliminary needs assessment, learning objectives were identified in three content areas: quality improvement, quality assessment, and patient safety. Residency program directors for three core programs (IM, Peds, Surgery) approved the learning objectives and the GME office supported the curriculum. An interactive lesson was designed for each content area. Each lesson included a presentation on hospital priorities by a senior hospital leader and core principle teaching by a faculty QI/PS educator, followed by an interactive exercise (i.e. Plan, Do, Study, Act (PDSA) cycle development). Lessons were delivered during residents’ established protected conference time in each of three core programs.

RESULTS: Learner assessment included pre-post knowledge tests and activities to assess skills. 65% of PGY-1s reported brief quality training in medical school; 90% reported brief safety training. The curriculum pre-test resulted in a mean and median score of 43.5% (10/23 points). On average, learners showed better knowledge of core QI/PS principles (mean score 48.2%) than of institutional QI/PS priorities (33.6%). On 5-point Likert scales, residents had strong positive responses regarding the importance of QI/PS to their education (4.6 and 4.8), but low confidence of their knowledge of institutional procedures (2.3 – 2.6). Familiarity with hospital leadership was modest on Likert scale and knowledge questions. Final post-curricular assessment results are pending.

CONCLUSION: Our pre-test data suggests that training on content areas is needed during residency. We demonstrated feasibility of an interdepartmental QI/PS curriculum to meet national training guidelines and learning objectives. Our future plans include roll out to all PGY-1 residents and first-year fellows at our institution. We learned that an interdepartmental curriculum supports efficient use of faculty and administrative resources while achieving CLER goals. Using hospital senior administrators as teachers fosters resident engagement with hospital priorities.
Creating a Neurology Curriculum for Pediatric Residents
AFSANEH TALAI, MD

STATEMENT: Currently, pediatric residents receive limited education in the field of pediatric neurology, and more specifically, they receive minimal education on outpatient management of neurological issues. The pediatric residents experience clinical neurology during two months of inpatient neurology service during their three years of residency. During these two months, the neurology fellows and attendings provide informal teaching during rounds, which is inconsistent and varies between individuals. The neurology department also gives one morning report per month to the pediatric residents.

OBJECTIVE: To create an educational curriculum for the general pediatric residents who are rotating on the inpatient neurology service. The curriculum will mainly focus on the outpatient management of neurological conditions, however some inpatient material will also be covered.

DESCRIPTION: The curriculum will include a combination of lectures, small-group discussions, at-home readings and hands-on practice to engage many types of learners. The curriculum will cover the work-up and treatment of common neurologic conditions (headaches, seizures, movement disorders, etc), review the neurologic physical exam, and review the fundoscopic exam. The topics that will be reviewed in the curriculum are based on the content specifications as set forth by the American Board of Pediatrics (ABP).

RESULTS: To assess if our hypothesis that pediatric residents are less proficient in neurology than other fields, we reviewed residents’ performance on the 2015 In-Training Exam (ITE), a yearly exam created by the American Board of Pediatrics. This exam is important in that it can predict the performance of residents on the general pediatric board exam. Of the 150 questions on the ITE, 15 of the questions relate specifically to a neurologic issue. We found that pediatric residents on average answer neurology questions incorrectly more often than they do on all questions. This trend is seen in every pediatrics class, which proves that this knowledge gap is not secondary to prior education received in medical school. The PL-1 residents answered 45.2% of the neurology questions incorrectly, whereas they answered 43.63% of all questions incorrectly; for the PL-2 residents, 35.27% of neurology questions were answered incorrectly, whereas 33.28% of all questions were answered incorrectly; and for the PL-3 residents, 38.33% of neurology questions were answered incorrectly, whereas 31.73% of all questions were answered incorrectly.

CONCLUSION: Thus far we have learned that the pediatric residents perform less well on neurology-related questions on the ITE compared to all questions, which indicates more education is needed in the field of neurology. One finding that we did not expect is that the knowledge gap widens in the PL-3 year. If we are able to obtain them, we will review previous years’ ITEs to assess if this is a real trend, and if it is, we will need to address how the curriculum should be modified to rectify this gap. Our next step is to perform a targeted needs assessment which will also serve as our pre-test prior to the initiation of the curriculum. We will edit the curriculum based on the findings of the needs assessment and then implement the curriculum. After the curriculum is implemented, we will obtain a post-test assessment to determine if the curriculum was efficacious. We will also review the results of subsequent ITE exams to determine if the performance of pediatric residents has improved.
Leadership for Urban Primary Care Education and Transformation (LUCENT)

ANNA VOLERMAN, MD; DEBORAH BURNET, MD, MA; JULIE GRUTZMACHER, MSW, MPH

STATEMENT: Primary care faces immense challenges in today’s health care system and transformation is required to effectively deliver high-quality, patient-centered, cost-effective care. A diverse, well prepared workforce is needed to care for our increasingly diverse patient populations.

OBJECTIVE: Our objective is to prepare a diverse primary care workforce and develop effective leaders for primary care transformation in urban communities.

DESCRIPTION: The HRSA-funded Leadership for Urban Primary Care Education and Transformation (LUCENT) Primary Care Training Program is a multi-disciplinary program with collaboration among the Departments of Medicine, Pediatrics, and Family Medicine. The program consists of three components over two years for resident scholars and one year for faculty scholars. First, residents have enhanced ambulatory training to strengthen clinical skills specific to primary care. Second, resident and faculty scholars participate in biweekly symposiums to develop knowledge and skills needed for primary care transformation and leadership. Lastly, each scholar leads a practice innovation project in their ambulatory setting to translate the knowledge and skills directly into practice.

RESULTS: The LUCENT symposium series was launched in October 2015 to build interest in and a community of practice for primary care leadership. The evaluations were overwhelmingly positive among 115 respondents. Overall, 93% felt the speakers presented information useful for ambulatory practice transformation and 93% felt the information was useful for the development of urban primary care leadership skills. Further, 100% stated they were likely to attend a symposium in the future. The symposia effectively developed a primary care community, bringing together individuals from a variety of specialties (24% Internal Medicine; 19% Pediatrics, 6% Medicine-Pediatrics, 5% Family Medicine) and levels (35% attending physicians, 26% medical students, 17% residents, 2% fellows). During the first year, a Steering Committee and Community Advisory Board were formed to support the program’s development and ongoing improvement. A curriculum was developed using Kem’s model with input from primary care physicians, care delivery leaders, and community partners. In July 2016, the first cohort of 12 scholars began the program, including six residents, one fellow, and five faculty. Their projects focus on: chronic pain, mental health, palliative care, pediatric obesity, and social determinants of health. Short-term outcomes include scholars’ knowledge and skills of primary care transformation and leadership, patient care access and delivery, disease outcomes, and attitudes about the program. These outcomes are assessed with scholar surveys, direct observation, electronic medical record reports, and project presentations. Long-term outcomes for scholars include entry into primary care, implementation of transformative initiatives, and attainment of primary care leadership roles. In addition to fostering career development, the program builds a stronger institutional network for primary care delivery and transformation.

CONCLUSION: The multidisciplinary LUCENT program prepares resident and faculty physicians to advance primary care delivery and become leaders in today’s ongoing transformation of primary care. Although the patient population and disease entities differ across specialties, primary care transformation and education represent an opportunity for collaborative learning and training.
Interprofessional Collaborative Practice: A Formal Curriculum for Residents in Primary Care Clinic

ANNA VOLERMAN, MD; GEORGE WEYER, MD; LATOYA BRADFORD; NATALIA GENERE, MD; GIANNA SPARKS; JULIE OYLER, MD

STATEMENT: In the current climate of health care reform, primary care is increasingly delivered by interprofessional (IP) teams that aim to deliver high quality, high value care to patients and populations. Team-based care is supported by studies demonstrating improved patient outcomes, as well as increased patient and employee satisfaction. Thus, it is essential for physicians to learn the foundational skills to work within and lead IP teams. Despite this, formal training in interprofessional collaboration has traditionally been limited, particularly in the clinical setting and in residency training.

OBJECTIVE: The objective was to enhance interprofessional collaborative practice (IPCP) among resident physicians in a primary care clinic

DESCRIPTION: Through an application of Kern’s model for curriculum development, we developed and evaluated an IPCP curriculum for first year internal medicine and medicine-pediatrics residents (PGY1) and ambulatory clinic nursing staff in the ambulatory clinic between July 2015 and June 2016. A literature review and needs assessment informed the curriculum development. Clinic nursing staff, including registered nurses (RN), licensed practical nurses (LPN), and medical assistants (MA), served as educators in the curriculum. Following Kolb’s learning cycle, the one-year curriculum consists of: 1. Three seminars led jointly by a combination of an RN, LPN, MA, and a physician. 2. Two clinical experiences where residents worked one-on-one with nursing staff within the setting. 3. Application in clinical care. The curriculum promoted the acquisition of core competencies of IPCP: values for interprofessional practice, roles and responsibilities, communication, and teamwork. All nursing staff attended an hour-long introductory session to review principles of adult learning and IPCP.

RESULTS: During the pilot year, 45 PGY1 residents and 16 nursing staff members have participated in the curriculum. At the start of the curriculum, 95.6% of residents (n=43) completed survey instruments focused on knowledge, skills, and attitudes for IPCP. Residents were most confident in their teamwork abilities (mean=4.0/5.0) and less confident with responsibilities (mean=3.6/5.0) and giving feedback to team members (mean 3.4/5.0). Residents rated the case-based seminar highly; 97% stated it was beneficial for understanding responsibilities, learning effective communication skills, and learning skills for working in and leading IP teams. Overall, 97% residents were satisfied with the seminar (mean = 4.42, SD 0.56). As a result of the residents’ clinical experiences with nursing staff, 95% of PGY1s reported they have a better understanding of responsibilities of nursing staff and 84% stated they are able to collaborate more effectively on an interprofessional team. Qualitatively, the majority of residents described it was most beneficial for learning about “what happens behind the scenes” and understanding different roles of nursing staff. Overall, 84% of residents were satisfied with the clinical experience and 74% would recommend it to future PGY1s. A post-curriculum evaluation is currently evaluating changes in knowledge, skills, and attitudes of resident physicians.

CONCLUSION: The literature includes few curricula designed to provide formal training for resident physicians in interprofessional collaborative practice, particularly in the ambulatory clinic setting. We successfully implemented a curriculum to provide formal training in IPCP for resident physicians by utilizing IPCP competencies and empowering nursing staff to be educators for resident physicians. Future studies will need to examine the impact of this curriculum on teamwork in the clinic and on patient-level outcomes.
Implementing a Web-based Case Discussion to Supplement the Sub-Internship Experience: The Virtual 4th Year Team

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STATEMENT: Sub-internship learning is often experiential. Only 19% of Clerkship Directors in Internal Medicine (CDIM) topics come via personal exposure. Student exposure limitations include geography, service, and competing responsibilities. The CDIM agrees curricular reform is needed. Social Media (SoMe) can augment the traditional curriculum to ensure adequate topic exposure.

OBJECTIVE: Yammer® is an Enterprise-based SoMe platform compliant with privacy and hospital-based policy. The goals of Yammer® were to increase sub-intern exposure to the 17 CDIM scenarios, foster faculty-moderated student-level case discussions, and create a learning network for geographically disparate subinterns.

DESCRIPTION: Students attended a Yammer® orientation prior to sub-internship. They were required to initiate four unique posts and comment on four additional posts/threads during their one month rotation. The faculty tracked the MS4 requirements above and facilitated and reinforcement topic discussions. Students completed an experience survey upon completing the rotation. Finally, each Yammer® discussion thread was analyzed for topic content.

RESULTS: 47 fourth year medical students rotated on a medicine subinternship from 2014-2016. Within the first three months of the project, 100% of the CDIM training problems had been discussed. 89% of students were average to very satisfied with the Yammer® experience. 87% found it easy to use. 83% of sub-interns rated the Yammer® educational experience as average to excellent. 77% felt the faculty participation prompt and helpful. 40% of students created 5-10 unique posts (i.e more than required). Only 6% of participants noted privacy concerns. Positive feedback included: “liked the little pearls and discussing cases”, “many students will really enjoy this forum” and “more enjoyable part of my Sub-I”. Criticisms included: “not enough participants”, “forced effort” and “burdensome”.

CONCLUSION: Yammer® was a well-received addition to traditional sub-internship experience. Supplementing the required clinical experiences with social media platform was feasible and the majority of students found it easy to use. In the future, more effort is required to increase participation across both students and faculty. Strategies could include engaging a student champion with SoMe savvy to increase student satisfaction/participation. We plan to use a SoMe platform to promote discussions on value, improvement, safety, team training and patient advocacy to augment the traditional CDIM curriculum. Finally, we plan to expand Yammer® into additional clinical rotations including the junior clerkship and possibly the preclinical years.
STATEMENT: With improved local and regional anesthetic techniques, increasing numbers of procedures are performed on awake patients. However, such procedures present a significant challenge for academic surgeons. With awake patients, attending surgeons must balance coaching and instruction of trainees with reassuring dialogue for patients.

OBJECTIVE: We aimed to discover what statements made by surgeons during awake surgery were perceived as positive and negative to patients. In so doing, we hoped to identify areas for improvement in this context for surgeon-patient and surgeon-trainee communication.

DESCRIPTION: We contacted patients who underwent awake procedures in Urology, Ophthalmology, and Orthopedic Surgery over a two-month period. Patients were called within 21 days post-procedure and consented to participate in audio-recorded semi-structured interviews regarding their experience with communication during the procedure. Interviews were transcribed, coded and reviewed using the constant comparative method until thematic saturation was reached.

RESULTS: Forty (67%) of the 60 patients consented. Of these 40, 7 (18%) made 23 distinct statements regarding negative recollections of communication during their procedure. Three patients made 9 comments of dissatisfaction with something said directly to them by the surgeon, within the themes of distraction, commands, and humor. Six patients made 14 comments indicating dissatisfaction with something said between the attending and resident surgeons and/or other parties in the room, within the themes of teaching, exclusion of the patient, and discussion of error.

CONCLUSION: Eighteen percent of patients reported negative experiences related to communication during awake procedures. While some of these patients expressed dissatisfaction with direct communication from their surgeons, the majority of patients were displeased with overheard communication between their surgeon and other parties. This highlights the need to improve not only surgeon-patient communication, but also attending-resident communication, particularly during procedural teaching with an awake and listening patient. Moving forward, these results will serve as a needs analysis to develop an educational intervention aimed at improving communication during awake surgical procedures.
Enriching Medical Education of Residents in the Pediatric Intensive Care Unit

UCHECHI ODDIRI, MD; GRACE CHONG, MD

STATEMENT: The pediatric intensive care unit (PICU) provides a unique learning environment – diverse in patient populations and rich in disease pathology, often distinguished by fluctuating acuity and severity. In this mutable climate, acquisition of new skills and medical knowledge while caring for the critically ill is a formidable task for the learner in the PICU. Currently, several methods for teaching pediatric residents exist, including bedside teaching, didactic lectures, and simulation teaching. A consistent method of teaching in the PICU can harmonize different training experiences to the pursuit of medical knowledge.

OBJECTIVE: We propose that the creation of a standardized lecture-based curriculum comprised of core ICU topics will enable the learners’ knowledge acquisition and retention.

DESCRIPTION: This is a prospective cohort study. Standardized didactic lectures for 13 core PICU topics are administered by the PICU faculty or fellows each month. Residents take a pre- and post-test (knowledge acquisition), followed by a post-rotation test 3 months after the completion of their rotation (knowledge retention). Furthermore, residents express their level of confidence in medical knowledge at each stage and perceived improvement in medical knowledge.

RESULTS: 28 residents have completed pre-tests, 23 completed post-tests, and 7 completed follow-up tests. Pre-test mean was 52.4%, SD 13.9 (when matched with post-tests, mean 49.9%, SD 13.3). Post-test mean was 59.7% (SD 17.1). The mean improvement in test scores was by 9.8% (p=0.0347, 95th CI 0.74-18.96). Follow-up test mean was 61.9% (SD 13), with no significant difference to matched post-test scores (p=0.7941). 100% residents perceived an improvement in their medical knowledge (n=20), and 93.8% residents demonstrated an increase in their level of confidence in PICU medical knowledge (n=16). 90% residents indicated satisfaction in the quality of the curriculum.

CONCLUSION: A standardized lecture-based curriculum effectively enables medical knowledge acquisition and retention of core ICU topics among pediatric residents.
Evaluating the Impact of Clinical Librarians During Inpatient Rounds

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STATEMENT: The increasing volume of complex medical literature and concurrent time constraints have hindered clinicians’ efforts to search for and apply evidence-based medicine into clinical practice. In fact, clinicians do not pursue about half of the clinical questions that arise during everyday practice.

OBJECTIVE: Clinical librarians (CLs) are involved in medical education in various ways, such as by facilitating journal clubs and training clinicians in the use of information services. Additionally, some CLs attend inpatient rounds where they perform literature searches and assist in answering clinical questions that arise while rounding. This study aimed to determine the effect of a CL on inpatient teams’ clinical questioning and learner skills in asking evidence-based medicine (EBM) questions. This could inform whether CLs would be useful in enhancing EBM during rounds.

DESCRIPTION: Clinical questioning was measured over 50 days of inpatient rounds by direct observation in which the CL was present for 25 days and absent for 25 days. Observations were evenly split between internal medicine and pediatrics. Question quality was assessed by a blinded evaluator using a rubric adapted from the validated Fresno Test for Evidence-Based Medicine. Surveys were distributed at the end of participants’ rotations to assess learner self-reported change in comfort asking EBM questions and performing literature searches. Descriptive statistics were generated for all collected data. A Wilcoxon rank-sum test was used to compare the number of questions asked and answered for CL Rounds and NCL Rounds. A Wilcoxon rank-sum test was also used to compare the quality of questions for CL Rounds and NCL Rounds in each PICO category and in total quality score following grading from a blinder evaluator. A Wilcoxon signed-rank paired test was used to determine whether survey respondents’ ability, comfort, and confidence changed before and after their time on the team.

RESULTS: The presence of the CL on rounds was associated with a significant increase in the number of questions asked (p<0.01) and answered (p<0.01) and in the time spent asking (p<0.01) and answering questions (p=0.02). Questions asked in the presence of the CL were significantly higher in overall quality (p<0.01), as determined by a trained blinded independent CL evaluator. Eighty-eight percent of study participants completed post-rotation surveys. Participants were significantly more likely to report increased ability to ask, search for, and answer questions at the end of their rotations as compared with the beginning of their rotations (p<0.01). Most participants also reported in free responses that the CL added to their learning and helped them ask more relevant questions. Some participants provided examples of how the CL’s presence had changed patient care.

CONCLUSION: The presence of a CL on inpatient rounds was objectively associated with more and improved clinical questioning and was subjectively perceived as improving participants’ evidence-based medicine (EBM) skills. CLs may also directly affect patient care in some cases, although further work is required to assess this outcome. In conclusion, CLs on inpatient rounds may be an effective means for medical students and physicians to learn EBM skills.
Teaching Empathy to Medical Students Using a Combination of Cognitive and Experiential Approach

TAMARA VOKES, MD; MEREDITH HAGGERTY, MFA

STATEMENT: It is well recognized that empathy is important for a successful patient physician relationship. Although empathy is generally high in the beginning of medical school, it diminishes between the 3rd and 4th year. Realization that empathy is important in medical practice coupled with the observation of its decline during medical school has resulted in a proliferation of empathy training initiatives. While these initiatives have some beneficial effect on clinicians’ behavior, they mostly involve cognitive tools and often result in “acting” empathy rather than “feeling” empathy.

OBJECTIVE: We propose a novel integrated method of teaching empathy using an experiential approach (which encourages affective response to another’s state of being), while providing a cognitive framework for dealing with these inner experiences.

DESCRIPTION: The course is held in the month of February of the fourth year, the time when students are particularly anxious about their performance in residency, are waiting for MATCH results, have lost some of their interviewing skills, and are dealing with disillusionment experienced in the third year.

The course includes 8 biweekly 3-hour classroom sessions and a weekend day when students interview several patients each using either “conventional” or “empathic” approach. These interviews are videotaped and then watched and discussed in the classroom. The classroom sessions included several elements: 1) Didactic portion. Examples of the topics include: Importance of empathy in health care; Recognizing emotions from facial expressions, posture, tone of voice, and verbal content; Delivering bad news (models and strategies); Developing resilience – dealing with medical error, difficult interpersonal professional relationships in clinical setting; Effective communication strategies; Incorporating empathy into a busy clinical practice; Empathy and self-care. 2) Partner exercise in a) compassionate listening, identifying different affective states, and providing constructive suggestions when appropriate and b) role playing (delivering bad news, dealing with medical errors, difficult professional interactions, poor medical outcomes). 3) Mindfulness practices including meditation practices (mindfulness - awareness of self; compassion practice – awareness of other) and somatic practices (Body awareness – body scan; Kinesthetic awareness of tension in own body). 4) Reflective writing following each partner exercise and each patient interview as well as a final essay at the end of the course. 5) Students’ presentation on their chosen topic related to empathy (last year the topics included cross-cultural differences in empathy and cross-species empathy (dogs); Empathy in autism; Empathy for social (rather than physical) pain; Use of hallucinogenic drugs in psychiatry and their effect on empathy; Dealing with pain of a loss of a child to cancer through a beautiful videogame – a lesson in acceptance. 6) Group discussion was part of every session and all students had to participate. These discussions foster: ability to express thoughts and feelings in a concise, articulate and respectful manner; ability to listen to another person with full attention and understanding of their point of view; developing a consensus and collective wisdom; building collaboration and team spirit.

RESULTS: Participants reported having a unique and transformative experience in this class (excerpts from their final assays and course evaluations are included in the poster)

CONCLUSION: Integrating experiential and cognitive approach is a promising new method for teaching empathy.
Evaluating the Effect of a Structured Didactic Curriculum on Residency Applicant Knowledge of Radiation Oncology

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**STATEMENT:** The Radiation Oncology Education Collaborative Study Group (ROECSG) implemented a structured didactic curriculum for radiation oncology clerkships at 18 academic medical centers in the United States in 2015. Incorporation of a structured didactic component into a radiation oncology clerkship has been shown to increase subjective knowledge and residency preparedness. However, it is uncertain whether a structured didactic curriculum improves objective measures of student knowledge, and thereby preparedness for residency. We hypothesized that students who completed a radiation oncology clerkship incorporating a structured didactic curriculum would be more prepared for residency, reflected by higher performance on an objective knowledge assessment of basic radiation oncology.

**OBJECTIVE:** A set of multiple choice questions (MCQs) was developed to assess objective knowledge of basic radiation oncology. The primary goal was to measure whether performance on the objective assessment was higher among students who completed clerkships with the ROECSG structured didactic component.

**DESCRIPTION:** An initial pool of 66 MCQs was developed covering General Radiation Oncology Knowledge, Radiation Biology/Physics, Simulations and Emergencies, and Treatment Planning. The MCQs were piloted with 9 PGY2-PGY5 radiation oncology residents. Feedback and performance data were utilized to identify 26 MCQs for inclusion in an anonymous, Internet-based survey distributed to all applicants to the University of Chicago radiation oncology residency program in the 2016 match. Six MCQs of low difficulty/discrimination were excluded from analysis, narrowing the final assessment to 20 questions. The survey also collected demographic information, prior radiation oncology experience, and clerkship experiences. Assessment performance of students who completed a radiation oncology clerkship at an institution that used the ROECSG curriculum (“curriculum students”) was compared to non-curriculum students, and is reported as (average percent correct [SD]).

**RESULTS:** Surveys were distributed to 200 students after the 2016 rank-list deadline. Eighty-one (40.5%) surveys were returned complete, from 47 curriculum and 34 non-curriculum students. Respondents were 74.1% male, and the majority were MD (79.0%) or MD/PhD (19.8%) students. The median number of completed radiation oncology clerkships was 3. Demographics and background experience with radiation oncology were similar between the two groups. Overall MCQ performance was higher among curriculum students (67.1% [17.0%] vs. 60.6% [17.2%], p<0.05). By subject area, curriculum students outperformed non-curriculum students in Radiation Biology/Physics (61.0% [6.8%] vs. 52.0% [7.4%], p<0.05) and Simulations and Emergencies (69.6% [7.2%] vs. 60.5% [7.7%], p<0.05). There was no difference in performance on General Radiation Oncology Knowledge or Treatment Planning MCQs.

**CONCLUSION:** Curriculum students demonstrated significantly higher objective knowledge of basic radiation oncology, particularly with regard to Radiation Biology/Physics and Simulations and Emergencies. While the knowledge assessment used in this study was brief and not externally validated, the results provide objective evidence that the ROECSG curriculum as a component of a standard clerkship improves long-term (approximately 6 month) student knowledge of radiation oncology. Better objective knowledge does not guarantee better residents. Therefore, more study of the ROECSG curriculum’s effect on performance of radiation oncology residents is needed.
Development and Evaluation of a Standardized Curriculum for Third Year Medical Students in the General Care Nursery

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STATEMENT: The Council on Medical Student Education in Pediatrics (COMSEP) outlines competencies related to newborn care that medical students are expected to achieve. However, it does not specify how to achieve these competencies or provide minimum recommendations on the length of time students should spend in a nursery setting. At the University of Chicago, all third year medical students (MS3s) are required to spend part of their clerkship in the General Care Nursery (GCN). However, given time limitations, students’ experiences are limited to three days. As a result, great variability exists with respect to not only patient volume and clinical exposure, but also teacher comfort level (attending and intern) during the GCN rotation.

OBJECTIVE: A GCN Standardized Curriculum was created in order to supplement the learning of MS3s rotating through the GCN by providing a set of curricular materials for students as well as their intern teachers that address the COMSEP competencies and key GCN topics identified by attendings.

DESCRIPTION: A needs assessment was conducted of MS3s, interns, and GCN attendings prior to initiation of study design and included questions related to preferred methods of instruction; interest and confidence in teaching newborn topics; perceived knowledge regarding newborn topics; and perceived skill with newborn physical exam. COMSEP competencies were also reviewed. Using the findings of the needs assessment and cross-referencing with COMSEP competencies, five graphic organizers were developed covering the following high-yield topics: jaundice, respiratory distress, prematurity, maternal medical issues, and sepsis. Curriculum materials were first reviewed with interns rotating through the GCN to orient them to available teaching aids. Medical students were introduced to and able to review the graphic organizers independently, with one another, or with one of the interns or attendings rotating through the GCN, as time and workflow permitted. Pre- and post-assessments were obtained to assess the effectiveness of the curriculum. Knowledge-based assessment questions were pulled from validated sources, including released CLIPP cases, shelf exams, and Case Files. Surveys were tracked using unique identifiers, and the study was IRB exempt.

RESULTS: Forty-five medical students were included in the analysis. The total mean score of the pre-assessment was 19.8 out of 25. The total mean score of the post-assessment was 21.2 out of 25. There was a statistically significant increase (1.4; P-value <0.001) in the post-assessment scores of the 45 third year medical students who participated in our intervention. There was no statistically significant difference among pre-and post-assessments when sorting groups based on possible confounding variables such as whether students’ GCN clinical experiences were in the first half or second half of their pediatrics rotations, whether students already completed their OB-GYN rotations, or whether most of their instruction came from attendings, residents, or self-study.

After completing the curriculum, 73.9% of surveyed MS3s self-reported feeling “comfortable” or “very comfortable” performing newborn physical exams. Additionally, 67.9% of MS3s self-reported feeling “comfortable” or “very comfortable” providing anticipatory guidance to families.

CONCLUSION: The standardized curriculum developed and implemented in this study is an effective tool to improve student learning experiences in the GCN. It can be flexibly implemented, with curricular materials serving as self-study modules for MS3s or teaching aids for interns and attendings.
Introductory Interprofessional Education: Video Curriculum Design

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**STATEMENT:** Interprofessional (IP) collaboration has been demonstrated to improve patient outcomes, particularly in geriatric patients. The Liaison Committee on Medical Education (LCME) now requires IP education to be included in the core curriculum of medical schools to prepare students for collaboration with other healthcare professionals. Leadership at the Pritzker School of Medicine (PSOM) noted a gap in IP education in their curriculum. A needs assessment found third year (MS3) PSOM students lacked knowledge about the roles of IP providers, but the majority felt it was important to be knowledgeable. Fourth year (MS4) PSOM students wanted more IP learning experiences.

**OBJECTIVE:** To address the knowledge deficits and desire for more IP education among Pritzker medical students, we aimed to create an adaptable, iterative curriculum to introduce students to the interprofessional team.

**DESCRIPTION:** We created a video-based curriculum that highlights the roles of different healthcare professionals and shows them collaborating to care for an elderly patient. The video presents a patient case and begins with a patient interview by the physician. Students collaborate to identify problems that could benefit from interprofessional consultation/intervention. The video features a portrayal and/or description of nurses, pharmacists, registered dietitians, speech language pathologists, licensed clinical social workers, physical therapists, occupational therapists, and case managers. The script was developed in consultation with providers from each specialty highlighted. The video was incorporated into a lecture-based workshop on the interprofessional team during the PSOM MS3 Internal Medicine (IM) clerkship in the summer of 2016. The curriculum was assessed using one survey immediately after the workshop and one at the end of the IM clerkship.

**RESULTS:** 21/23 (91%) MS3 students in the summer 2016 IM clerkship participated in the interprofessional video curriculum pilot and post-curriculum survey. 100% (21/21) agreed or strongly agreed that they gained new knowledge from the video. 86% (18/21) agreed or strongly agreed that the video improved their understanding of when to consult interprofessional providers. 90% (19/21) agreed or strongly agreed that the video should be shown to future students on the IM clerkship. After the curriculum, students retrospectively rated their confidence interacting with interprofessional providers on a scale of 1-5. Students’ mean rating of their confidence before the workshop was 2.67 (SD 0.73); after the workshop was 3.57 (SD 0.59). 20/23 (87%) MS3 clerkship students completed a follow-up survey at the end of the clerkship. 11/18 (61%) reported they used information they learned from the video and workshop session at least once per week. 13/18 (72%) reported the video at least moderately improved their ability to work with interprofessional providers.

**CONCLUSION:** Students found that this video improved their understanding of interprofessional providers and increased their confidence in interacting with the IP team. A video-based curriculum is an appropriate and effective medium for teaching the roles of the interprofessional team.
ECHO-Chicago Geriatrics: An Innovative Model to Address the Geriatrics Workforce Shortage

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STATEMENT: In the University of Chicago Medicine (UCM) Primary Service Area (PSA), adults over 65 constitute 14% of the total population, a rate higher than the national average and over 25% higher than the Chicago average. Health status indicators for older adults on Chicago’s South Side demonstrate a large unmet need for improved access to health information, resources, and care, particularly for multimorbid older adults. UCM’s PSA is significantly underserved for primary care provider (PCP) availability as compared to Chicago as a whole. In addition to a PCP shortfall in general, there is a high level of need for providers with expertise in caring for older adults. The current and future geriatrician shortfall in Illinois is estimated to be over 700 geriatricians. Clearly, this need will not be met by fellowship-trained geriatricians, thus creating and implementing programs that offer PCPs access to geriatrics training and expertise are essential in overcoming the workforce shortage. Time and distance are two major barriers in providing additional training to community PCPs.

OBJECTIVE: 1) Provide geriatrics training to community PCPs across Chicago’s South Side via the Extension for Community Health Outcomes (ECHO)-Chicago Geriatrics, a videoconferencing case-based curriculum; 2) Foster case-based discussion amongst community PCPs on best practices for care of older adults; 3) Improve self-efficacy of community PCPs on management of geriatrics issues.

DESCRIPTION: The Extension for Community Health Outcomes (ECHO) is an evidence-based model to expand primary care capacity to manage common chronic diseases in underserved communities. ECHO-Chicago uses advanced communications technology to bring together University of Chicago specialty care providers and community-based PCPs for case-based, interactive training via regularly scheduled videoconference sessions. ECHO-Chicago Geriatrics was developed as part of a larger project, the South Side Healthy Aging Resource Experts (SHARE) Network, whose aim is to enhance the geriatrics-prepared work force. ECHO-Chicago Geriatrics is a recurring 12-session curriculum. Videoconference sessions include a 20-30 minute lecture followed by presentation by community PCPs of at least two new patient cases per session, review of progress of previously presented cases, and discussion among participating PCPs led by program faculty.

RESULTS: Forty-one providers have participated in the ECHO-Chicago Geriatrics curriculum over two series. Twenty-one completed pre- and post- surveys (51% response rate). Of responding providers, average self-efficacy score increased from 4 to 5 on a 7-point scale (1=none or no skill, 7=expert, teach others). Ninety percent (n=19) of participants had a positive change in self-efficacy score. PCP rating of self-efficacy on specific geriatric skills improved across all skill areas. For example, self-efficacy rating on “ability to discuss and complete living will documentation/POLST” rose from an average of 3.6 pre-series to 4.9 post-series. In response to the question: “Now that you have participated in ECHO-Chicago, do you feel part of a knowledge network where you can consult experts at academic centers and colleagues from other FQHCs?” 71% (n=15) responded “yes.”

CONCLUSION: Community PCPs feel more knowledgeable on geriatrics topics and skills and more confident in caring for geriatric issues after participation in this curriculum. ECHO-Chicago Geriatrics is an innovative model to expand the geriatrics-prepared workforce.
Food for Thought: A Study of Intern Eating Behaviors While on Nightfloat Rotations

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STATEMENT: Data from nursing studies have shown that working night shifts is associated with adverse health consequences, including weight gain and poor eating. Epidemiologic and physiology studies have demonstrated a variety of mechanisms through which working overnight adversely affects health. After changes to duty hours were implemented, nightfloat rotations have increased in frequency, most noticeably for interns limited to 16-hour shifts. Adverse consequences of nightfloat rotations for interns’ health and eating behaviors has been relatively unexplored.

OBJECTIVE: This study is aimed to promote understanding of residents’ eating behaviors while on nightfloat rotations. The data will be utilized to design a targeted intervention to improve resident access to healthy food and promote healthy eating patterns while on nightfloat rotations.

DESCRIPTION: Internal Medicine, Pediatric, and Med-Peds interns were surveyed at the end of their intern year at required retreats. The survey asked about their experience on nightfloat rotations, included questions about eating habits, food cravings and access to food, on a 5-point scale that included never, rarely, sometimes, often and always.

RESULTS: Survey response rate was 80.3% (49/61). Overall, interns report dissatisfaction with the food available on nightfloat (67.3%, n=33/49). While on nightfloat, interns have an intense desire to eat unhealthy food (93.9%, n=46/49). Interns also found themselves eating to satisfy cravings for unhealthy food (93.9%, n=46/49), and satisfy cravings to feel less grouchy and irritable (61.2%, n=30/49) and to feel more alert (36.7%, n=18/49). Over half of interns report gaining weight during nightfloat rotations (55.1%, n=27/49). Current food sources included bringing food from home (n=37), buying meals at Au Bon Pain (n=35) and eating patient food from the nutrition room (n=25), which mainly includes packaged cookies and high-calorie dietary supplements. Open ended comments suggested the following: “healthy food options” and “healthy foods provided to us!!”

CONCLUSION: This study identified unhealthy eating behaviors and a lack of healthy food options available during nightfloat rotations for interns. Interns on nightfloat rotations report widespread dissatisfaction with food available, their food cravings, and their eating choices. An intervention that increases healthy food options should be implemented to improve intern health while on a difficult nightfloat schedule.
Updated Analysis of a Multi-institutional Radiation Oncology Clerkship Curriculum: A Report from the Radiation Oncology Education Collaborative Study Group

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STATEMENT: Radiation oncology curriculum development is challenging due to limited numbers of trainees at any single institution.

OBJECTIVE: The specific aim of this project is to implement and evaluate a uniform medical student clerkship curriculum at select academic medical centers (AMCs) following the multi-institutional cooperative group research model.

DESCRIPTION: A standardized curriculum was developed consisting of three lectures (Overview of Radiation Oncology, Radiation Biology/Physics, and Practical Aspects of Simulation/Radiation Emergencies) and an interactive hands-on planning workshop. The planning workshop exposed students to basics of contouring and treatment planning. Students were asked to complete an anonymous evaluation of the curriculum using Likert-type scales (1 = “not at all,” 2 = “somewhat,” 3 = “moderately,” 4 = “quite,” and 5 = “extremely.” Likert-type data are reported as median [interquartile range]. Non-parametric statistical tests were used to compare pre- and post-curriculum scores.

RESULTS: 377 students at 18 AMCs completed the curriculum during the 2013-15 calendar years. 179 (47%) completed evaluations, reported intent to pursue radiation oncology, and reported that this was their first time receiving the curriculum. Subsequent data are reported for these 179 students. Student ratings of the importance of curricular content were: Overview 4 [4-5]; Radiation Biology/Physics 5 [4-5]; Practical Aspects/Radiation Emergencies 5 [4-5]; Planning Workshop 5 [4-5]. The planning workshop improved student comfort with treatment planning (pre 2 [1-2] vs post 3 [3-4], p <0.01), using a planning workstation (pre 2 [1-3] vs post 3 [3-4], p <0.01), and understanding of an AP/PA spine plan (pre 2 [1-3] vs post 4 [3-4], p <0.01). Students also reported the curriculum helped them to understand radiation oncology as a specialty (5 [4-5]), increased specialty decision comfort (4 [3-5]), and would help the transition to radiation oncology residency (5 [4-5]).

CONCLUSION: A standardized radiation oncology clerkship curriculum was developed and implemented at 18 AMCs during the 2013-2015 calendar years, providing proof-of-principle that radiation oncology curriculum development can follow the multi-institutional cooperative group research model. Additionally, subsequent to participation in the curriculum, students felt more comfortable with their specialty decision and better prepared to begin radiation oncology residency. Further curriculum enhancement for radiation oncology trainees, including both medical students and residents, can be pursued using this model.
STATEMENT: This pre/post survey study aimed to understand how the psychiatric clerkship affects medical student attitudes toward psychiatric patients, psychiatric treatments, mental health stigma, and careers in psychiatry.

OBJECTIVE: The objective of this study was to determine if the psychiatry clerkship has a positive impact on medical student perceptions of mental illness, psychiatric treatment modalities, and careers in psychiatry. We also utilized the survey to investigate medical students reasons for choosing a career in psychiatry, biases with which medical students may enter the clerkship, and to use this information to direct resident teaching and to identify important areas to address during training.

DESCRIPTION: 52 third year medical students rotating through the psychiatry clerkship at University of Chicago were given a 30 item, 6 point Likert Scale survey on the first day of their clerkship and then again on the last day to determine how their attitudes or perceptions of psychiatry may have changed over the four week clerkship.

RESULTS: Survey questions were organized into 4 a priori domains including: 1) psychiatric career (respect, reputation, merit); 2) psychiatric treatment efficacy; 3) mental health stigma; and 4) psychiatric clerkship/university specific issues. From pre-post there was a significant positive improvement in medical student attitudes for treatment efficacy (MDIFF = 0.27, SD = 0.43, t51 = 4.43, p < .001), mental health stigma (MDIFF = 0.56, SD = 0.53, t51 = 7.62, p < .001), careers (MDIFF = 0.26, SD = 0.36, t51 = 5.13, p < .001), and clerkship/university related issues (MDIFF = 0.40, SD = 0.68, t51 = 4.23, p < .001), as well as a significant improvement in medical student attitudes toward psychiatry overall (MDIFF = 0.40, SD = 0.29, t51 = 8.58, p < .001). Calculation of effect sizes revealed medium to large effects, with Cohen’s d ranging from 0.59 to 1.19.

CONCLUSION: Over the course of the 4 week psychiatry clerkship, there was a statistically significant (p<.001) improvement in medical student attitudes toward psychiatry careers, psychiatric treatments, mental health stigma, psychiatry clerkship/university issues, and survey responses overall.
Primary Care Physicians’ Attitudes on the Impact of Medical Scribes on Patient-Doctor Relationship, Physician Satisfaction and Patient Experience

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STATEMENT: The use of electronic health records (EHRs) has grown; however, concerns exist that EHRs may interfere with the doctor-patient relationship and contribute to physician burnout. A recent study found that EHRs negatively impacted physician satisfaction due to data entry demands, poor workflows, and interference with face-to-face care. One novel approach to address these issues is utilization of medical scribes to complete EHR documentation, which in specialty clinics and emergency departments has been associated with increased productivity, decreased patient wait times, and increased physician satisfaction. However, little research exists on the attitude of primary care physicians towards using scribes.

OBJECTIVE: To develop a pilot scribe program in primary care at the University of Chicago.

DESCRIPTION: We developed a 35-item survey with Likert-scale and multiple-choice questions to explore faculty perceptions of medical scribes. The survey included questions related to burnout, time spent on EHR documentation outside of clinic hours, and attitudes and beliefs about the impact of scribes on workflow, satisfaction, and patient interactions. Those interested in working with scribes answered additional questions on duties they wanted scribes to perform. Likert responses at the high end of the scale were grouped to dichotomize data (i.e. agree/strongly agree); data was summarized using descriptive statistics.

RESULTS: Thirty-five (35/39, 90%) General Internal Medicine (GIM) faculty responded to the survey. 66% of respondents were female and 54% completed training over 15 years ago. One-quarter reported active symptoms of burnout. The majority (79%) of respondents reported insufficient time for EHR documentation and 36% reported that clinic was chaotic. Only 33% of physicians were satisfied with the EHR.

Physicians were divided in their attitudes about scribes. About half of respondents (58%) were interested in piloting scribes in clinic and agreed that scribes would decrease their stress at work (57%) and at home (49%), allow them to be better focused (48%), increase work satisfaction (49%), and make the clinic less hectic (48%). Many respondents thought that scribes would add value to their interactions (46%) and allow them to be better connect with patients (49%). Some physicians reported concern about documentation accuracy (44%) and patient privacy (38%). Only 32% of physicians who were interested in scribes were willing to see an additional patient per clinic session to work with a scribe.

Among physicians interested in working with scribes, the top five activities faculty wanted scribes to perform were allergy review (91%), reconcile medications (86%), remind them about medications refills (86%), review best practice alerts (77%), and navigate the patient through clinic (82%).

Providers in practice for ≤15 years had a 5.5 greater odds (95% CI 1.1-28.4) of being interested in working with a scribe.

CONCLUSION: Faculty had mixed perceptions of scribe use. About half of respondents were interested in working with scribes and reported potential for scribes to decrease stress at work and improve workplace satisfaction, which can potentially decrease physician burnout. A pilot program targeting interested primary care faculty should be explored to better understand the impact of scribes on primary care physician satisfaction and burnout.
Creation and Implementation of a Healthy Aging Community Education Curriculum: A SHARE Network Project

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STATEMENT: Chicago's South Side is one of the nation's largest underserved communities lacking access to care, health education, and well-established community health resources, particularly for older adults. To address this gap, the South Side Healthy Aging Resource Experts (SHARE) Network was created: a robust network of older adults, caregivers, and interprofessional (IP) aging specialists who share resources and education to improve health for older adults on Chicago’s South Side. One component of the SHARE Network project was to develop and implement a community-based Healthy Aging curriculum for older adults.

OBJECTIVE: 1) Assess the needs of community-dwelling older adults on Chicago’s South Side for health-related education to support aging in place; 2) Develop a Healthy Aging curriculum to address community needs; 3) Implement and evaluate this curriculum.

DESCRIPTION: A needs assessment was performed with key stakeholders at three community-based organizations serving older adults on Chicago’s South Side in the Hyde Park, Washington Park, and Chatham neighborhoods. Health education topics identified as most needed included: medications and side effects, Medicare basics, arthritis, falls and safety, cognitive decline and dementia, and end of life care options. A community-based Healthy Aging curriculum was developed based on this needs assessment. Educational strategies included hour-long interactive sessions delivered by IP team members. Surveys were distributed at the end of each session to gather feedback for quality improvement and to evaluate the effectiveness of the curriculum.

RESULTS: A total of 27 Healthy Aging sessions have been conducted at three different South Side locations. A total of 426 community members have participated—an average of 17 participants per session—of these, 306 responded to surveys (72% response rate). In surveys, 84% of participants agreed that they felt more knowledgeable about the topic presented, 79% committed to a healthy behavior change as a result of the session, and 87% rated the session as “excellent” or “very good.” Participants also shared comments on specific behavior changes they planned (for example, after Sleep session: “I’ll try to turn off TV and reduce liquid intake before bedtime,” after Medicare Basics session: “Research possible change to part D plan,”) and gave suggestions for topics for future health education sessions.

CONCLUSION: A community-based Healthy Aging curriculum was developed to address health needs for older adults on Chicago’s South Side. Data suggest that curriculum participants felt more knowledgeable on healthy aging topics after participation and were committed to making healthy behavior changes. Feedback by participants will guide future Healthy Aging curriculum development. Future work will focus on further outcome evaluation and expanding access to sessions.
Novel Champions for Professionalism: Integrating a Patient-Centered EMR Use Curricula into Required EMR Training

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STATEMENT: Electronic Medical Record (EMR) use with patients in clinical care is the new norm. Despite ACGME competencies regarding professional documentation expectations and interpersonal communication skill development in order to utilize patient-centered education strategies, few institutions provide formal curricula on patient-centered EMR use. Furthermore, even if such curricula exist, it is difficult to practically deliver it to all institutional trainees, thus limiting training to specific departments. Without required institutional education, trainees are left to rely on the hidden curriculum to learn EMR integration strategies and can adopt unprofessional documentation practices. Our objective was to develop and provide mandatory patient-centered EMR training to all incoming post-graduate medical trainees at the University of Chicago.

OBJECTIVE: We aimed to embed training on institutional documentation expectations and patient-centered EMR use strategies for all incoming post-graduate medical trainees at the University of Chicago (UChicago) into their required EPIC onboarding training and assess the impact of our curricula.

DESCRIPTION: After reviewing the literature, we developed a 10-minute presentation on patient-centered EMR use best practices and issues related to documentation professionalism including “cut and paste” and authorship. UChicago EPIC trainers were instructed by the Primary Investigators on curricula content and delivered it as part of the 8-hour required EMR training for all 2015 new interns, residents and fellows. Post-training, a 10-item Likert-scale survey was used to evaluate trainee self-assessed patient-centered EMR use knowledge, ability, and likelihood to change clinical practice. Likert responses at the high end of the scale were grouped to dichotomize data (i.e. 4=agree and 5=strongly agree combined as “agree”).

RESULTS: One hundred fifty-eight trainees completed evaluations (72 residents and fellows, 86 interns; 32 primary care and 126 surgical or specialty trainees in 27 specialties). Trainees reported increases in their knowledge of patient-centered EMR use barriers (Pre-training 3.1 (0.9 SD) vs Post-training 3.9 (SD 0.8), p<0.001), best practices (Pre-training 3.1 (0.9 SD) vs Post-training 3.9 (SD 0.8), p<0.001), and ability to implement best practices (Pre-training 3.1 (0.9 SD) vs Post-training 3.9 (SD 0.8), p<0.001). Most felt the training was effective (90.5%, n=143), that it should be required (86.7%, n=137) and that it would change their future clinical practice as a result (70.9%, n=112). When comparing program type, primary care trainees were more likely to report training was effective (4.34 vs 4.09, p=0.003) and that it would change their future practice (4.13 vs 3.73, p=0.02).

CONCLUSION: Graduate Medical Education faculty partnership with EMR trainers who do routine required on-boarding is a novel, timely and effective method to facilitate training on patient-centered EMR communication strategies and professional documentation expectations across a variety of residency and post-residency training programs. Future training should aim to longitudinally reinforce best practices for trainees, train faculty to promote positive role-modeling in order to proactively shape the “hidden curriculum” of EMR use, and measure patient-satisfaction with trainee communication to determine if training was effective in creating an institution-wide shared model of professionalism and high quality patient care in the computerized setting.

Given the success of training and its reception by both trainees and trainers, the curriculum will continue yearly for all incoming trainees and also be incorporated into all new hire EMR training for attendings, nurses and support staff at UChicago. This curricula capitalizes on existing support structure available at most academic settings, involves minimal effort on part of the faculty and EMR trainers, and does not require additional cost making it extremely feasible and easily replicated at other institutions.
Development and Validation of e-Clinical Evaluation Exercise (e-CEX) Tool to Assess Patient-Centered Electronic Medical Record Use

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STATEMENT: Despite widespread adoption of the Electronic Medical Record (EMR) and identification of specific EMR related behaviors and skills that can enhance patient-physician interactions, providers receive minimal formalized education and feedback on these skills. The American Medical Association and the Alliance for Clinical Education have both recently highlighted the importance of addressing this issue in undergraduate and graduate medical education; however, methods by which to evaluate medical student proficiency in patient-centered EMR use are both essential and lacking.

OBJECTIVE: Using a previously developed patient-centered EMR use curriculum, the investigators aimed to develop and validate the electronic-Clinical Evaluation Exercise (e-CEX) tool as a method by which to assess and reassess medical student EMR specific communication skills over time.

DESCRIPTION: The investigators developed a patient-centered EMR use curriculum provided to second year pre-clinical medical students (MS2) during their Clinical Skills course at the University of Chicago. The curriculum included a lecture on EMR use barriers and best practices and videotaped Group Objective Structured Clinical Examinations (GOSCEs) with a Standardized Patient (SP) immediately after the lecture and one year later. Third year medical students (MS3) who had not received the curriculum also performed in the same patient-centered EMR use OSCE, however as individual participants and not in group format. The investigators created the e-CEX, a 10-item 90-point tool, for use in direct observation assessment by trained observers as well as an SP evaluation tool (16 items, 80 points total) based on best communication practices identified in the literature. Inter-rater reliability of the e-CEX was established using intraclass correlation coefficient and trained observers evaluated the videotaped encounters using the e-CEX. The investigators evaluated internal consistency using Cronbach’s alpha and concurrent validity between the e-CEX tool and our SP evaluation tool, a surrogate for patient experience, using Pearson correlation coefficient.

RESULTS: A total of 70 students and 85 encounters were rated using the e-CEX: 20 trained MS2s, 50 untrained MS3s, and 15 MS3s who were trained one year prior as MS2s. Cronbach’s alpha for the e-CEX was 0.89, indicating high reliability. Trained MS2 students (n=20) scored significantly higher on the e-CEX than untrained MS3 students (n=50) [55 (SD=10.7) vs. 44.9 (SD=12.7), p=0.003]. Trained MS2 (n=20) average scores using the SP evaluation tool were significantly higher than untrained MS3 (n=88) students [70.8 (SD=4.3) vs 58.1 (SD=13.1), p<0.001]. The e-CEX tool rating correlated with the SP evaluation tool (Pearson correlation 0.74). As third year students (one year after receiving the curriculum as MS2s), e-CEX scores were not significantly changed (average change = -0.9, SD=15.4; p=0.83) although their SP evaluation scores deteriorated [71.6 (SD= 3.4) vs 62.9 (SD=14.5), p=0.027].

CONCLUSION: The e-CEX tool was a reliable and valid method of evaluating medical student skills and behaviors surrounding patient-centered EMR use. The curricular intervention was effective in improving students’ patient centered skills while using the EMR and this effect largely remained one year after the intervention. Future work would include evaluating the tool with residents and patients in real clinical scenarios and as a faculty development tool.
Teaching the Teachers: Adapting a Faculty Development Workshop on Patient-Centered Electronic Medical Records Use for Busy Clinicians

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STATEMENT: Electronic medical record (EMR) use in exam rooms can distract providers from their patients, however few faculty receive training on patient-centered EMR use.

OBJECTIVE: We developed patient-centered EMR use workshops for primary care faculty at Cleveland Clinic (CC) and University of Chicago (UC). We assessed participant satisfaction and knowledge, attitude, skills. We compared efficacy of a long vs short training.

DESCRIPTION: After literature review, we developed a faculty workshop consisting of a lecture highlighting barriers and best practices for patient-centered EMR use and Group-Objective Structured Clinical Exam (GOSCE). Faculty interacted with an SP to take a history, integrate the EMR for chart review and document an HPI. We tailored the training to align with institution specific needs and resources and the CC training was 4-hours while the UC training was 90 minutes.

RESULTS: 32 total academic primary care faculty [Family Medicine (FM) and General Internal Medicine (GIM)] completed training [13 CC faculty (5 FM; 8 GIM) and 19 UC (GIM)]. All faculty completed a 23 item post-workshop evaluation. Responses to Likert items were dichotomized at the high end of the scale to denote agreement (i.e. agree/strongly agree). Descriptive statistics were summarized and compared between sites.

We analyzed 30/32 (94%) evaluations. Overall, the majority (67%, 20/30) of respondents were female (CC 50% vs UC 72%, p=0.22), with mean age of 48 (range 31-65) (CC 47 yo vs UC 45 yo, p=0.59). Overall, 100% (30/30) of faculty agreed the training was ‘important,’ ‘relevant,’ and enabled them ‘to better teach and role model patient-centered care for trainees’, with no difference in mean ratings between CC and UC faculty (4.75 vs 4.72, 4.64 vs 4.89, 4.42 vs 4.50, p >0.05 for all). Overall, 97% (29/30) agreed that the workshop should be ‘required with no difference between CC and UC (4.75 vs 4.56, p=0.40).

There were significant post-workshop increases in mean scores of ‘awareness of barriers’ and ‘best practices’ at both sites with no site differences (pre vs. post; 3.7 vs 4.5 and 3.1 vs 4.3 respectively, p<0.001 for both). Additionally, there was a significant post workshop increase in mean ratings on ability to ‘implement best practices’ and ‘teach trainees’ (3.3 vs. 4.2 and 2.9 vs 4.1 respectively, p<0.001 for both) with no site differences. While almost all faculty (29/30, 97%) agreed the GOSCE was an ‘effective,’ the CC mean ratings were higher than UC ( 4.58 vs 4.12, p=0.04). However, more faculty at the UC agreed that the workshop was ‘informative and effective’ and that they ‘gained new knowledge’ (4.45 vs 4.83 p=0.04; 4.12 vs. 4.67 p=0.21 respectively).

CONCLUSION: We were successful in developing faculty training on patient-centered EMR use for faculty at two academic medical centers. Faculty felt patient-centered EMR use training is important, relevant and should be required. No difference was found between longer and shorter training. Given busy primary care clinician demands, shorter patient-centered EMR training may be a feasible and effective way to spread this model to other institutions and other levels of trainees.
Medical Education Day 2006–2016

2006-08
Creation of an InterDepartmental Longitudinal, Experiential Resident-As-Teachers Curriculum
H. BARRETT FROMME, MD, MHPE; KRISTA JOHNSON, MD

2006-08
Evaluating Professionalism in the Emergency Department: The Patient-Physician Encounter
CATHERINE JOHNSON, MD; GARY STARR, MD; JANIS TUPESIS, MD; DAVID HOWES, MD

2006-08
Geographic Medicine Scholars Program
JAY E. PURDY, MD, PHD; JANIS TUPESIS, MD; JEAN-LUC BENOIT, MD

2006-08
Medical Education in the 21st Century: Direct Observation as a Standard to Demonstrate Competencies in the Clinical Performance of Medical Students
LINDA DRUELINGER, MD; JUSTIN GATEWOOD, MD

2006-08
Quality-Based Surgical Training: The Surgical Training and Assessment Tool (STAT)
PAUL B. ROACH, MD; MITCHELL POSNER, MD; JONATHAN SILVERSTEIN, MD

2006-08
Residents as Teachers: A Longitudinal Plan of Training and Assessment
ANITA BLANCHARD, MD; JENNIFER AHN, MD

2006-08
Teaching Quality Assessment and Quality Improvement to Internal Medicine Residents
JULIE OYLER, MD; LISA VINCI, MD; VINEET ARORA, MD, MAPP; JULIE JOHNSON, PHD

2006-08
Use of Virtual Microscopy for Integrated Preclinical Medical School Teaching
DAVID MCCLINTOCK, MD; ALIYA HUSAIN, MD; SCOTT STERN, MD

2007-09
A Model Curriculum to Improve Resident Feedback and Professionalism Using Immersive Simulation
ELIZABETH BLAIR, MD; JAY PINTO, MD; STEPHEN SMALL, MD, PHD

2007-09
Community-Based Preceptor Training to Improve Feedback for Medical Students in the Family Medicine, Pediatric and Medicine Clerkships
SARAH-ANN SCHUMANN, MD; LISA VARGISH, MD; RITA GORAWARA-BHAT, PHD; MICHAEL D. MENDOZA, MD, MPH; DON SCOTT, MD, MHS; SANDY SMITH, PHD

2007-09
Easing the Transition to Internship Training: The Creation of a Capstone Curriculum
JEANNE FARNAN, MD, MHPE; SHALINI REDDY, MD; H. BARRETT FROMME, MD, MHPE

2007-09
Improving the Teaching of Professionalism in Surgery
PETER ANGELOS, MD, PHD
2008-09
Creation of an InterDepartmental Longitudinal, Experiential Resident-As-Teachers Curriculum

H. BARRETT FROMME, MD, MHPE; KRISTA JOHNSON, MD

2008-09
Geographic Medicine Scholars Program

JANIS TUPESIS, MD; JOHN SCHNEIDER, MD, MPH; JEAN-LUC BENOIT, MD

2008-09
Teaching Quality Assessment and Quality Improvement to Internal Medicine Residents

JULIE OYLER, MD; LISA VINCI, MD; VINEET ARORA, MD, MAPP; JULIE JOHNSON, PHD

2008-09
Use of Virtual Microscopy for Integrated Preclinical Medical School Teaching

DAVID MCCLINTOCK, MD; ALIYA HUSAIN, MD; SCOTT STERN, MD

2009-11
CAPE (Curriculum for Advancing Palliative Care Education): A Longitudinal, Integrative Approach to Palliative Medicine Training for Medical Students

STACIE LEVINE, MD; WILLIAM HARPER MD; MICHAEL MARышKE MD; LISA VARGISH MD

2009-11
Developing and Implementing a Scholarly Track in Community Health and Service-Learning for Pritzker Students

SARAH-ANNE SCHUMANN, MD; KRISTINE BORDENAVE MD; VINEET ARORA MD, MAPP

2010-11
Mentoring with Meaning: Improving the Quality and Utility of Feedback on Students’ Reflective Writing

HEATHER JOHNSTON, MD; ADAM CIFU, MD; KRISTA JOHNSON, MD

2010-12
Geriatrics and Aging Through Transitional Environments (GATE): Integrated, Longitudinal Geriatrics Curricula through the Pritzker Initiative

SEEMA LIMAYE, MD; SHELLIE WILLIAMS, MD; SANDY SMITH, PHD

2010-12
Pilot Curriculum for Teaching Residents Single Incision Laparoscopic Surgery (SILS): A Patient Safety Initiative

NANCY SCHINDLER, MD, MHPE; MICHAEL UJIKI, MD; JOSE VELASCO, MD; VIVEK PRACHAND, MD

2011-12
Resident Perceptions of Teaching on Night Float Rotations

H. BARRETT FROMME, MD, MHPE

2011-13
Developing a Free National Databank of Online Psychiatry Teaching Cases

MICHAEL MARANGELO, MD

2011-13
Foundations in Medicine

SUSAN GLICK, MD; MICHAEL O’CONNOR, MD

2012-14
EFForRT: Evaluation and Feedback for Resident Teachers

SABRINA HOLMQUIST, MD; SANDRA VALAITIS, MD; ADRIANNE DADE, MD
2012-14
Resident Education on Patient-Oriented
Clinic Handoffs (EPOCH)
WEI WEI LEE, MD, MPH

2012-14
Development and Evaluation of a Systems Based
Practice Curriculum for Surgery Residents
NANCY SCHINDLER, MD, MHPE; MEGAN MILLER, MD;
KEVIN ROGGIN, MD

2013-15
Patient-Centered EMR Use
MARIA (LOLITA) ALKUREISHI, MD;
WEI WEI LEE, MD, MPH

2013-15
Teaching CONSULT: Consultation with
Novel Methods & Simulation for UME and
GME Longitudinal Training. The Development
of a Longitudinal Curriculum for Calling
Consults
KEME CARTER, MD; SHANNON MARTIN, MD;
JINA SALTZMAN, PA-C; CHRISTINE BABCOCK, MD

2013-15
Piloting a Graduate Medical Education (GME)
Medical Education Scholars Track for Resident
Trainees at the University of Chicago
SHANNON MARTIN, MD; JAMES AHN, MD;
JEANNE FARNAN, MD, MHPE;
H. BARRETT FROMME, MD, MHPE

2014-15
Pilot Curriculum for Increasing Medical Student
Awareness of Interprofessional Health Care
JAY BALACHANDRAN, MD;
DAVID SCHACHT, MD, MPH; SANGEETA SENAPATI, MD

2014-16
Multimorbidity: Teaching Medical Students
Principles of Care for Patients with Multiple
Chronic Conditions
MARIKO WONG, MD; KATE THOMPSON, MD

2014-16
Implementing a Web-based Case Discussion
to Supplement the Sub-Internship Experience:
The Virtual 4th Year Team
IRSK ANDERSON, MD; JEANNE FARNAN, MD, MHPE;
DIANE ALTKORN, MD; TODD STERN, MD;
WEI WEI LEE, MD, MPH

2015-17
Interprofessional Education in Medication
Management in Older Adults: A Physician-
Pharmacy Trainee Collaboration
TIA KOSTAS, MD; JIZ THOMAS, PHARMD, BCACP;
KATHERINE THOMPSON, MD; JASON POSTON, MD;
STACIE LEVINE, MD

2015-17
Interprofessional ReCoVER QI Program
ANNA VOLERMAN, MD; GEORGE WEYER, MD;
MAUREEN WILCOX, MD; LYNDA HALE;
JIZ THOMAS, PHARMD, BCACP

2016-18
The Patient-Partnered Clinical Experience
(PPCE)
JOYCE W. TANG, MD, MPH; MARI EGAN, MD, MHPE;
ANSHU VERMA, MD; AUDREY TANKSLEY, MD;
NICOLE GIER, LCSW; CARRIE WICKS, RN

2016-18
Teaching Chronic Disease Management:
Engaging Pritzker Students in the
Interprofessional ReCoVER QI Program
VALERIE PRESS, MD, MPH; ANNE ARCESE, APN;
MEGAN HUISINGH-SHEETZ, MD; STEVE WHITE,
MD; CATHY STAFFON; JENNIFER AUSTIN, PHARMD;
MARY LANIGAN, RN; VINEET ARORA, MD, MAPP
Medical Education Day Keynote Speakers: 2006–2016

2006
MOLLY COOKE, MD
University of California, San Francisco
Why Teachers are Important and What Important Teachers Do

2007
LARRIE GREENBERG, MD
George Washington University School of Medicine
How Do I Know I’m Teaching Effectively?

2008
FREDERIC HAFFERTY, PHD
University of Minnesota, Duluth School of Medicine
Using Social Network Analysis to Study Medical Education

2009
LAWRENCE G. SMITH, MD
Hofstra University School of Medicine
The Medical Learning Environment Under Siege: Protecting the Profession

2010
KENNETH S. POLONSKY, MD
University of Chicago Medical Center
The Central Role of Education in the Academic Medical Center

2011
LISA COPLIT, MD
Quinnipiac University School of Medicine
The Value, Rewards, and Evidence for Residents as Teachers

2012
LCME Site Visit – No Medical Education Day

2013
RUTH MARIE E. FINCHER, MD
Medical College of Georgia Hospitals and Clinics
Making It Count: Turning Your Educational Work into Scholarship

2014
MARYELLEN E. GUSIC, MD
American Association of Medical Colleges (AAMC)
Ensuring Competence: Authentic Assessment of Learners

2015
DEBRA L. KLAMEN, MD, MHPE
Southern Illinois University School of Medicine
Third Year Clerkships – Let’s Get Real

2016
MARC M. TRIOLA, MD
New York University School of Medicine
Using Big Data to Innovate at the Intersection of the Clinical and Educational Missions
Program and Clerkship Directors Retreat Topics: 2009–2016

2009
Disruptive Behavior in the Medical Workplace: Across the Spectrum of Medical Education

2010
Spotlight on Supervision Across the Spectrum of Medical Education

2011
Residents ARE Teachers

2012
LCME Site Visit – No Medical Education Day

2013
The Transition from Medical School to Residency

2014
Innovative Methods of Assessment Across the Continuum

2015
Interprofessional Education

2016
Feeding Forward/Reflecting Back Across the Continuum of Medical Education
Academy Funded Research and Request for Applications: Medical Education Research
Current Academy Funded Research

2016-18

Teaching Chronic Disease Management:
Engaging Pritzker Students in the Interprofessional ReCoVER QI Program

VALERIE PRESS, MD, MPH; ANNE ARCESE, APN; MEGAN HUISINGH-SCHEETZ, MD;
STEVE WHITE, MD; CATHY STAFFON; JENNIFER AUSTIN, PHARMD;
MARY LANIGAN, RN; VINEET ARORA, MD, MAPP

The Patient-Partnered Clinical Experience (PPCE)

JOYCE W. TANG, MD, MPH; MARI EGAN, MD, MHPE; ANSHU VERMA, MD;
AUDREY TANKSLEY, MD; NICOLE GIER, LCSW; CARRIE WICKS, RN

2015-17

Interprofessional Team Members as Partners in Resident Education

ANNA VOLERMAN, MD; GEORGE Weyer, MD; MAUREEN WILLCOX, MD;
LYNDA HALE; JIZ THOMAS, PHARMD, BCACP

Interprofessional Education in Medication Management in Older Adults:
A Physician-Pharmacy Trainee Collaboration

TIA KOSTAS, MD; JIZ THOMAS, PHARMD, BCACP; KATHERINE THOMPSON, MD;
JASON POSTON, MD; STACIE LEVINE, MD

For further information about previously funded medical education grants, please refer to our website:
http://pritzker.uchicago.edu/page/medical-education-rfas
Request For Applications:
Medical Education Research

_Sponsored by:_ The University of Chicago Pritzker School of Medicine’s Academy of Distinguished Medical Educators

**DEADLINE: FRIDAY, JANUARY 13, 2017**

In order to foster a learning environment for students and residents that is characterized by creativity, originality, and rigor, the University of Chicago Pritzker School of Medicine’s Academy of Distinguished Medical Educators is making research funding available to support proposals for projects in medical education.

The will be peer-reviewed through the Academy of Distinguished Medical Educators Steering Committee.

We are especially interested in receiving proposals related to the following themes but welcome proposals in other areas as well:

- Integration of clinical medicine and basic science
- Fostering scholarship in medical school and/or residency training
- Innovative programs in quality improvement or systems-based practice for students and/or residents
- Interprofessional education

If you are interested, please request an application form by emailing the University of Chicago Pritzker School of Medicine’s Dean for Medical Education (dean-for-meded@bsd.uchicago.edu). This email should include information as to whether the planned proposal pertains to medical student education, resident/fellow education, or both.

Proposals are due on January 13, 2017. Total funding for projects should not exceed $25,000 per year for up to two years, equally shared between the grantee’s department and the Dean for Medical Education (up to $12,500 per year from each source, with documentation of anticipated support from department chairman).

Awards will be announced by March 3, 2017 with funding to commence on July 1, 2017.

This RFA is the ninth cycle of research support available for medical education at the University of Chicago and is one element of an ongoing series of initiatives to foster research, innovation, and scholarship in medical education and to promote and sustain a strong culture of teaching at the University of Chicago and the NorthShore University HealthSystem.
ADME Programs:
FAME (Faculty Advancing in Medical Education)
and
Teaching Consultation Service
Faculty Advancing in Medical Education (FAME) is a faculty development program sponsored by the Academy of Distinguished Medical Educators and the MERITS Program (Medical Education Research, Innovation, Teaching, and Scholarship). FAME supports faculty educators by providing resources and training in key conceptual and practical skills in teaching and assessment. Launched in September, 2011, FAME offers three or more faculty development sessions each academic year.

The FAME Goals are to:

- Enhance faculty members’ knowledge of theory-based education and its practical application.
- Enhance faculty skills in teaching and assessment.
- Improve medical student and resident education.

The FAME Objectives are to:

- Establish a framework for practically applying workshop topics to their teaching venues.
- Improve specific faculty teaching and/or evaluation skills.

The upcoming FAME workshops are as follows:

**FEBRUARY 3, 2017 (11:30AM-1PM) FAME LUNCH HOUR**

OSTEs: Find Out What Students are Afraid to Tell You: You Practice, They Preach
H. Barrett Fromme, MD, MHPE, Associate Professor of Pediatrics

Teaching Millennial Learners
Shannon Martin, MD, MS, Assistant Professor of Medicine, Section of Hospital Medicine (and a partner)

**APRIL 26, 2017 (7AM-8AM) FAME MORNING HOUR**

Procedural Teaching
Nancy Schindler, MD, MHPE, Vice Chairman of Education Department of Surgery
E. Stephen Kurtides, MD, Chair of Medical Education, NorthShore University HealthSystem, Clinical Professor of Surgery, University of Chicago, Pritzker School of Medicine

PowerPoint Presentations
James Ahn, MD, MHPE, Assistant Professor of Medicine, Section of Emergency Medicine
Jason Poston, MD, Assistant Professor of Medicine, Section of Pulmonary / Critical Care

Past FAME workshops included sessions on:

- Item Writing for Educators
- Making a Smooth Transition—Teaching Patient-Centered Transfers of Care
- Number Needed to Tweet: Integrating Social Media into Medical Education Part 1
- How to Be a Supermodel: Using Role Modeling to Become an Exemplary Educator
- Teaching on the Fly
- Teaching in Rounds Geared Towards Millennial Learners
- Giving Feedback
- Effective Lecturing
- Small Group Facilitation
- Objective Structured Teaching Encounters
- Direct Observation
- Challenges in Clinical Assessment
- Assessment of Learners: Linking Assessment to Goals and Objectives
- Effective Use of PowerPoint & Poster Presentations
- Teaching Procedural Skills
- Collaborative Solutions: Facing Competency Based Education & the Assessment of Milestones

For more information and to register, visit our website at: [http://pritzker.uchicago.edu/page/faculty-development-workshops](http://pritzker.uchicago.edu/page/faculty-development-workshops)
The Academy of Distinguished Medical Educators’ Teaching Consultation Service is a confidential, individualized educational consultation for those interested in an objective observation and formative assessment of their teaching skills.

Members of the Academy of Distinguished Medical Educators, who are trained to observe and provide feedback on teaching skills, are available for teaching consultation for one of several environments:

- Large group teaching
- Small group teaching
- Clinical teaching
- Procedural teaching

The consultants will individually tailor each consult to the teaching venue and needs of each faculty member through a pre-consultation discussion. All feedback will be confidential, though participants will receive a formal recognition of their participation, which can be included in their educational portfolio for promotion. Additionally, on request, the Service will notify the participant’s section chief or chairman for recognition of participation.

Faculty and residents have been utilizing this service for the past year and have found it to be an extremely valuable experience. One faculty member noted:

“I have been giving the same medical student lecture for years. I modified it this year based on the feedback from the Teaching Consultation and the response from the Course Director was “Wow, I don’t know what you did, but this year it was better than ever!”

“I found the advice to be excellent and very intuitive… This was one of the most valuable faculty advancement instruction I have received. It was direct, useable and personalized.”

To request a consult, please complete a Teaching Consultation Request Form on the Academy website:
http://pritzker.uchicago.edu/page/teaching-consult-service