

# The Academy of Distinguished Medical Educators

## 11<sup>th</sup> Annual Medical Education Day

Thursday, November 16, 2017

The Academy of Distinguished of 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 Associate Dean of Medical School Education 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.



### ORDER OF EVENTS

**8:00-11:30 AM      Program and Clerkship Directors' Education Workshop**

Gordon Center for Integrative Science, Room W301-303

*Developing a Successful Career as a Medical Educator:*

*Tackling Unaddressed Barriers Through Communities of Practice*

**12:00-1:00 PM      Keynote Address**

UCMC P-117

*Sensors, Motion Tracking and Data Science: Unfolding the Metrics of Mastery*

Carla Pugh, MD, PhD

**2:00-4:00 PM      Poster Session**

Knapp Center for Biomedical Discovery (KCBD), 1st Floor Lobby

**4:00-5:00 PM      Plenary Session: Three Oral Abstracts**

KCBD Auditorium 1103

- *Teaching Sepsis: An Innovative Medical Education Initiative to Improve Sepsis Management in the Emergency Department*
- *Does Patient Preference for Female Obstetrician-Gynecologists Negatively Influence the Salaries of their Male Counterparts?*
- *Geographic Trends and Regional Mobility for United States Allopathic Seniors Participating in the Residency Match*

**5:00-6:00 PM      Awards Ceremony**

KCBD Auditorium 1103

Induction of new Fellows of the Academy of Distinguished Medical Educators





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Jeanne Farnan, MD, MHPE; David Meltzer, MD, PhD



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**Keynote Speaker**



## Keynote Speaker



### **Carla Pugh, MD, PhD**

Susan Behrens, MD Professor of  
Surgical Education  
Vice Chair of Innovation and Entrepreneurship  
Clinical Director, University of Wisconsin  
Health Clinical Simulation Program

to measure and characterize hands-on clinical skills. Currently, over two hundred medical and nursing schools are using one of her sensor-enabled training tools for their students and trainees.

Her work has received numerous awards from medical and engineering organizations. In 2011 Dr. Pugh received the Presidential Early Career Award for Scientists and Engineers from President Barack Obama at the White House. Dr. Pugh has been honored with countless visiting professorships and has been featured on numerous radio, television, and news segments, including a TEDMED talk on the potential uses of technology to transform how we measure clinical skills in medicine. She is considered to be an international expert on the use of sensors and motion tracking technology for performance measurement.

**Carla Pugh, MD, PhD** is the Susan Behrens, MD Professor of Surgical Education at University of Wisconsin, Madison and the Founding Clinical Director of University of Wisconsin Health's Clinical Simulation Program. Dr. Pugh obtained her undergraduate degree at the University of California-Berkeley in Neurobiology and her medical degree at Howard University School of Medicine in 1992. Upon completion of her general surgery residency at Howard University Hospital, she received a PhD in Education from Stanford University in 2001, becoming the first surgeon in the United States to do so. Shortly after, she became an Assistant Professor of Surgery and Education at Northwestern University, where she worked both at the Chicago Lakeside VA Hospital and at Northwestern Memorial Hospital, eventually being named Director of the Center for Advanced Surgical Education. In 2012, she joined the University of Wisconsin faculty as the Vice-Chair of Education and Patient Safety, Department of Surgery, and has held several other leadership positions, including her current post as the Vice-Chair of Innovation and Entrepreneurship.

Dr. Pugh has long been interested in the use of technology to change the face of medical and surgical education. Her research involves the use of simulation and advanced engineering technologies to develop new approaches for assessing and defining competency in clinical procedural skills. Dr. Pugh holds two patents on the use of sensor and data acquisition technology





## **Members of the Academy**



## Founding Members of the Academy

### Halina Brukner, MD

Professor of Medicine, Associate Dean for Medical School Education  
Director of the Pritzker School of Medicine Academy of Distinguished Medical Educators

### Holly J. Humphrey, MD

Ralph W. Gerard Professor in Medicine, Dean for Medical Education

### Bruce Gewertz, MD

Former Professor and Chairman of Surgery

### Eric Lombard, PhD

Professor of Organismal Biology & Anatomy (Emeritus)

### Stephen Meredith, MD, PhD

Professor of Pathology, Biochemistry and Molecular Biology

### Mark Siegler, MD

Lindy Bergman Distinguished Service Professor of Medicine and Surgery  
Executive Director of the Bucksbaum Institute for Clinical Excellence  
Director of the MacLean Center for Clinical Medical Ethics

### Scott Stern, MD

Professor of Medicine

### Ting-Wa Wong, MD, PhD

Associate Professor of Pathology

### Lawrence D.H. Wood, MD, PhD

Professor of Medicine (Emeritus), Former Dean for Medical Education

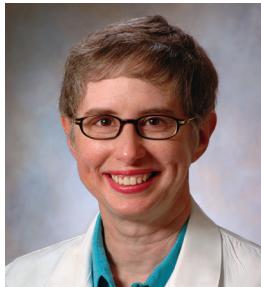
#### The Core Mission of the Academy is to:

- 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



**Diane Altkorn, MD**

Professor of Medicine



**Vineet Arora, MD, MAPP**

Associate Professor of Medicine,  
Assistant Dean for Scholarship & Discovery



**Halina Brukner, MD\***

Professor of Medicine,  
Associate Dean for Medical  
School Education



**Eugene Chang, MD**

Martin Boyer Professor of Medicine



**Adam Cifu, MD**

Professor of Medicine



**Linda Druelinger, MD**

Professor of Medicine



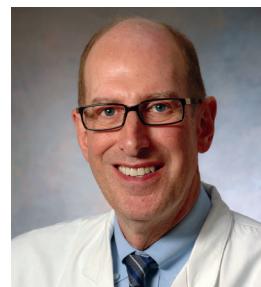
**Jeanne Farnan, MD, MHPE**

Associate Professor of Medicine



**H. Barrett Fromme, MD, MHPE**

Associate Professor of Pediatrics



**Philip Hoffman, MD**

Professor of Medicine



**Holly J. Humphrey, MD\***  
Ralph W. Gerard Professor in Medicine,  
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**Aliya Husain, MD**  
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**Jerome Klafta, MD**  
Professor of Anesthesia  
and Critical Care



**Patricia Kurtz, MD**  
Associate Professor of Medicine



**Callum Ross, PhD**  
Professor of Organismal Biology  
and Anatomy



**Mindy Schwartz, MD**  
Professor of Medicine



**Mark Siegler, MD\***  
Lindy Bergman Distinguished Service  
Professor of Medicine and Surgery



**Scott Stern, MD\***  
Professor of Medicine



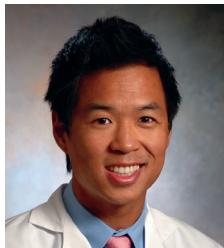
**Ting-Wa Wong, MD, PhD\***  
Associate Professor of Pathology

\* Founding Members of the Academy

## Fellows of the Academy

Fellows are faculty members who were inducted into the Academy of Distinguished Medical Educators because of their demonstration of the following:

- 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



**James Ahn, MD, MHPE**  
Assistant Professor of Medicine



**Lolita Alcocer Alkureishi, MD**  
Assistant Professor of Pediatrics



**Peter Angelos, MD, PhD**  
Linda Kohler Anderson Professor of  
Surgery and Surgical Ethics



**Anita Blanchard, MD**  
Professor of Obstetrics and Gynecology,  
Assistant Dean for Graduate Medical Education



**James Brorson, MD**  
Associate Professor of Neurology



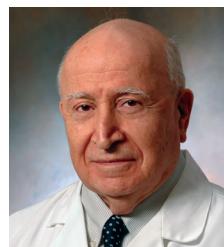
**Brian Callender, MD, MA**  
Assistant Professor of Medicine



**Keme Carter, MD**  
Associate Professor of Medicine,  
Assistant Dean of Admissions



**David Glick, MD, MBA**  
Professor of Anesthesia &  
Critical Care



**Javad Hekmatpanah, MD**  
Professor of Neurosurgery,  
Neurology and Cancer Research



**Sabrina Holmquist, MD, MPH**  
Associate Professor of Obstetrics  
and Gynecology



**Nora Jaskowiak, MD**  
Associate Professor of Surgery



**Karen Kim, MD**  
Professor of Medicine



**Wei Wei Lee, MD, MPH**  
Assistant Professor of Medicine,  
Assistant Dean of Students



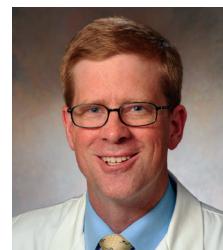
**Stacie Levine, MD**  
Professor of Medicine



**Michael Marcangelo, MD**  
Associate Professor of Psychiatry  
and Behavioral Neuroscience



**Peggy Mason, PhD**  
Professor of Neurobiology



**John McConville, MD**  
Associate Professor of Medicine



**Lisa McQueen, MD**  
Associate Professor of Pediatrics



**Mohammed Minhaj, MD, MBA**  
Professor of Anesthesia  
and Critical Care



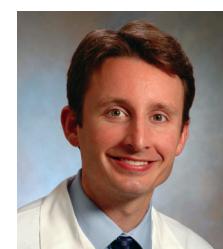
**Diana Mitchell, MD**  
Assistant Professor of Pediatrics



**Babak Mokhlesi, MD, MSc**  
Professor of Medicine



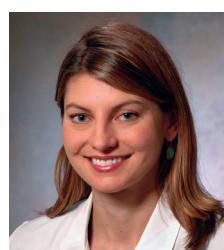
**Michael O'Connor, MD**  
Professor of Anesthesia  
and Critical Care



**Peter H. O'Donnell, MD**  
Assistant Professor of Medicine



**Julie Oyler, MD**  
Associate Professor of Medicine



**Amber Pincavage, MD**  
Associate Professor of Medicine



**Beth Plunkett, MD, MPH**  
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NorthShore University HealthSystem



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**Shalini Reddy, MD, MHPE**

Professor of Medicine



**Kevin Roggin, MD**

Professor of Surgery



**Rita Rossi-Foulkes, MD, MS**

Associate Professor  
of Medicine and Pediatrics



**David Rubin, MD**

Joseph B. Kirsner  
Professor of Medicine



**Husain Sattar, MD**

Associate Professor of Pathology



**Nancy Schindler, MD, MHPE**

Clinical Professor of Surgery,  
NorthShore University HealthSystem



**Sonali M. Smith, MD**

Elwood V. Jensen  
Professor of Medicine



**Deborah Spitz, MD**

Professor of Psychiatry and  
Behavioral Neuroscience



**Sarah Stein, MD**

Associate Professor of Pediatrics  
and Medicine



**Marie Tobin, MD**  
Professor of Psychiatry and  
Behavioral Neuroscience



**Katherine Thompson, MD**  
Assistant Professor of Medicine



**Avery Tung, MD**  
Professor of Anesthesia  
& Critical Care



**Sandra Valaitis, MD**  
Professor of Obstetrics  
and Gynecology



**Monica Vela, MD**  
Professor of Medicine,  
Associate Dean for Multicultural Affairs



**Lisa Vinci, MD, MS**

Professor of Medicine



**Darrel Waggoner, MD**

Professor of Human Genetics  
and Pediatrics



**Ernest Wang, MD**

Clinical Professor of Emergency Medicine,  
NorthShore University HealthSystem



**Shellie Williams, MD**

Assistant Professor of Medicine



**James Woodruff, MD**

Professor of Medicine,  
Associate Dean of Students



## Newly Elected Fellows of the Academy

2017 Newly Elected Fellows of the Academy of Distinguished Medical Educators



**Arshiya Baig, MD, MPH**

Assistant Professor of Medicine  
in the Section of Internal Medicine

**Arshiya Baig, MD, MPH** is an Assistant Professor of Medicine in the Section of Internal Medicine at the University of Chicago. Dr. Baig received her MD and MPH from Tufts University School of Medicine and completed her residency at the University of Michigan Health System. In 2005, she was selected as a Robert Wood Johnson Clinical Scholar at University of California – Los Angeles, where she dedicated her time to addressing health disparities and community health among Latino populations. Dr. Baig was also selected as a US Fulbright Scholar in Colombia, where she conducted research and taught community-based research methods. She came to the University of Chicago in 2008 and is currently an Associate Director of the Chicago Center for Diabetes Research and Translation. Dr. Baig has won multiple awards for her work in Chicago's Latino communities, including the Companion Award for exemplary community service from the Taller de Jose organization, the BSD Faculty Award for Distinguished Community Service and Advocacy, and the Midwest Society of General Internal Medicine Award for Advocacy and Community Service. She has been involved in medical education at the Pritzker School of Medicine as a Community Health Research track leader for Scholarship & Discovery. Dr. Baig's project on diabetes health management was recently chosen as one of six to be funded by the US Department of Health and Human Services Office of Minority Health.



**Benjamin Ko, MD**

Assistant Professor of Medicine in  
the Section of Nephrology

**Benjamin Ko, MD** is an Assistant Professor of Medicine in the Section of Nephrology at the University of Chicago. He received his MD from the University of Illinois – Chicago in 2001, completed his residency at Yale New Haven Hospital, and came to the University of Chicago for his fellowship in 2004. Dr. Ko has a strong interest in fluid and electrolyte management, serving as the director of the renal biopsy service and a preceptor in the nephrology fellows' clinic. He immediately began teaching upon his arrival at the University of Chicago, and over the past decade has held weekly fluid electrolyte conference for nephrology fellows, led group sessions on renal physiology for second-year medical students at the Pritzker School of Medicine Clinical Performance Center, mentored residents and fellows on inpatient service, and is the co-course director of the Cell and Organ Physiology course. Dr. Ko is also the Associate Program Director of the Nephrology Fellowship Training Program and was recently awarded the Tutored Research and Education for Kidney Scholars (TREKS) grant through the American Society of Nephrology, which is a summer program targeted at medical students interested in Nephrology. He has won numerous honors for his teaching skills, having been named Favorite Wards Attending in both 2014 and 2015, and having received the Section of Nephrology Teaching Award three years in a row, since 2015.

**Tia Kostas, MD**

Assistant Professor of Medicine  
in the Section of Geriatrics  
and Palliative Medicine

**Tia Kostas, MD** is an Assistant Professor of Medicine in the Section of Geriatrics and Palliative Medicine at the University of Chicago. She completed her MD at the Mayo Medical School in Rochester, Minnesota, in 2007, followed by her residency at Brigham & Women's Hospital and fellowship in gerontology at Harvard Medical School. In 2011, Dr. Kostas entered an advanced fellowship program in geriatrics research, education, and clinical centers (GRECC) at the VA Boston Healthcare System and also completed the Harvard Macy Program for Educators in the Health Professions. Dr. Kostas joined the University of Chicago as a clinician in 2014, and began a Medical Education, Research Innovation, Teaching and Scholarship (MERITS) fellowship simultaneously. In addition to being a lecturer and workshop leader for the Clinical Skills 2 sessions, a preceptor for second-year students' geriatric simulated patient encounters, and the co-director of the Becoming a Resident Teacher fourth-year elective, Dr. Kostas directs the Longitudinal Program (LP) thread throughout the first year medical school curriculum. Dr. Kostas directs the Longitudinal Program (LP) thread throughout the first year medical school curriculum.

**Shannon Martin, MD, MS**

Assistant Professor of Medicine  
in the Section of Hospital Medicine

**Shannon Martin, MD, MS** is an Assistant Professor of Medicine in the Section of Hospital Medicine at the University of Chicago. She completed her MD at the University of Missouri – Columbia School of Medicine in 2008, and came to the University of Chicago for her residency training. In 2011, she entered the Hospitalist Scholars Training Program, and the Medical Education, Research Innovation, Teaching and Scholarship (MERITS) Fellowship in Medical Education. During this time, she also completed her Masters of Science degree in Health Studies here at the University of Chicago. She joined the faculty in 2013, and from 2014-2016 served as Core Faculty in the Internal Medicine Residency Program, and is now an Associate Program Director for the residency program. In undergraduate medical education, Dr. Martin is a lecturer and preceptor group leader in Clinical Skills 2 and a preceptor group leader for the third-year internal medicine clerkship, among other responsibilities. She is equally involved in graduate and continuing medical education, serving as a faculty facilitator for the pediatrics residency program Teaching Elective, a lecturer for Faculty Advancing in Medical Education (FAME), and was also critical in the development and implementation of our GME (Graduate Medical Education) Bootcamp, helping to design and evaluate innovative programming to assure in the safe and effective on-boarding of new trainees to UChicago Medicine. Dr. Martin also co-created and co-leads the GME MERITS program for residents interested in careers as clinical educators. She also served as a faculty mentor for the pipeline program, TEACH (Training Early Achievers for Careers in Health Research) and mentored students from the Chicago Public Schools with interest in STEM careers.



**Anthony Montag, MD**

Professor of Pathology,  
Associate Dean for Admissions

**Anthony Montag, MD** is a Professor of Pathology (anatomical) at the University of Chicago, and the Associate Dean for Admissions at the Pritzker School of Medicine. Dr. Montag earned his MD in 1979 from the Medical College of Wisconsin. He continued his training in Clinical Pathology at the Medical College of Wisconsin, subsequently transferring to complete an Anatomic Pathology residency at Brigham and Women's Hospital in Boston, where he was Chief Resident. In 1985, he completed his Fellowship in Gynecologic Pathology, also at Brigham and Women's Hospital, and began working at the University of Chicago. In addition to being an academic surgical pathologist, he has been extensively involved in teaching medical students, residents and fellows. For 16 years he taught Histology to the Medical Scientist Training Program (MSTP) students, and currently teaches in the second-year course Clinical Pathophysiology and Therapeutics. Dr. Montag consistently received impressive teaching evaluations and was voted favorite faculty by the medical students six times. His research interests include expression of developmental genes in sarcomas and the pathogenesis of ovarian cancer.



**Nicola Orlov, MD'08, MPH**

Assistant Professor of Pediatrics

**Nicola Orlov, MD'08, MPH** is an Assistant Professor of Pediatrics at the University of Chicago. She has spent her career at the University of Chicago, graduating from the Pritzker School of Medicine in 2008 and remaining at Comer Children's Hospital for her pediatric residency. In 2011, she began the Medical Education, Research Innovation, Teaching and Scholarship (MERITS) Fellowship concurrently with her year as Chief Resident in the Department of Pediatrics. Dr. Orlov currently serves as the Associate Program Director for Compliance and Program Development for the Pediatric Residency Training Program and the Co-Clerkship Director for the third-year pediatrics clerkship. In these roles, she has been instrumental in building connections across the continuum of education and clinical care – whether it is in the evolution of a trainee's professional identity from student to resident, in the clinical care of the patient from the inpatient to the outpatient environment, or in the application of the principles of psychology and qualitative research upon patient – physician interactions. She is active in institutional service, participating in the Academic Performance Committee at Pritzker, the residency recruitment committee, the Clerkship Curriculum Review Committee, the facilitation of the Minority Visiting Clerkship Program and serving as a Chair of the Pediatric Clinical Competency Committees. Dr. Orlov has also been highly involved in didactic teaching at Pritzker, both through lecturing and mentorship, and in 2017 was chosen by students to receive the Alpha Omega Alpha (AOA) Faculty Induction and the Leonard Tow Award, as well as the Joel G. Schwab Award for Excellence in Mentorship from the pediatric residents.



### Russell Reid, MD, PhD

Professor of Surgery and Associate Professor of Pediatrics in the Section of Plastic and Reconstructive Surgery

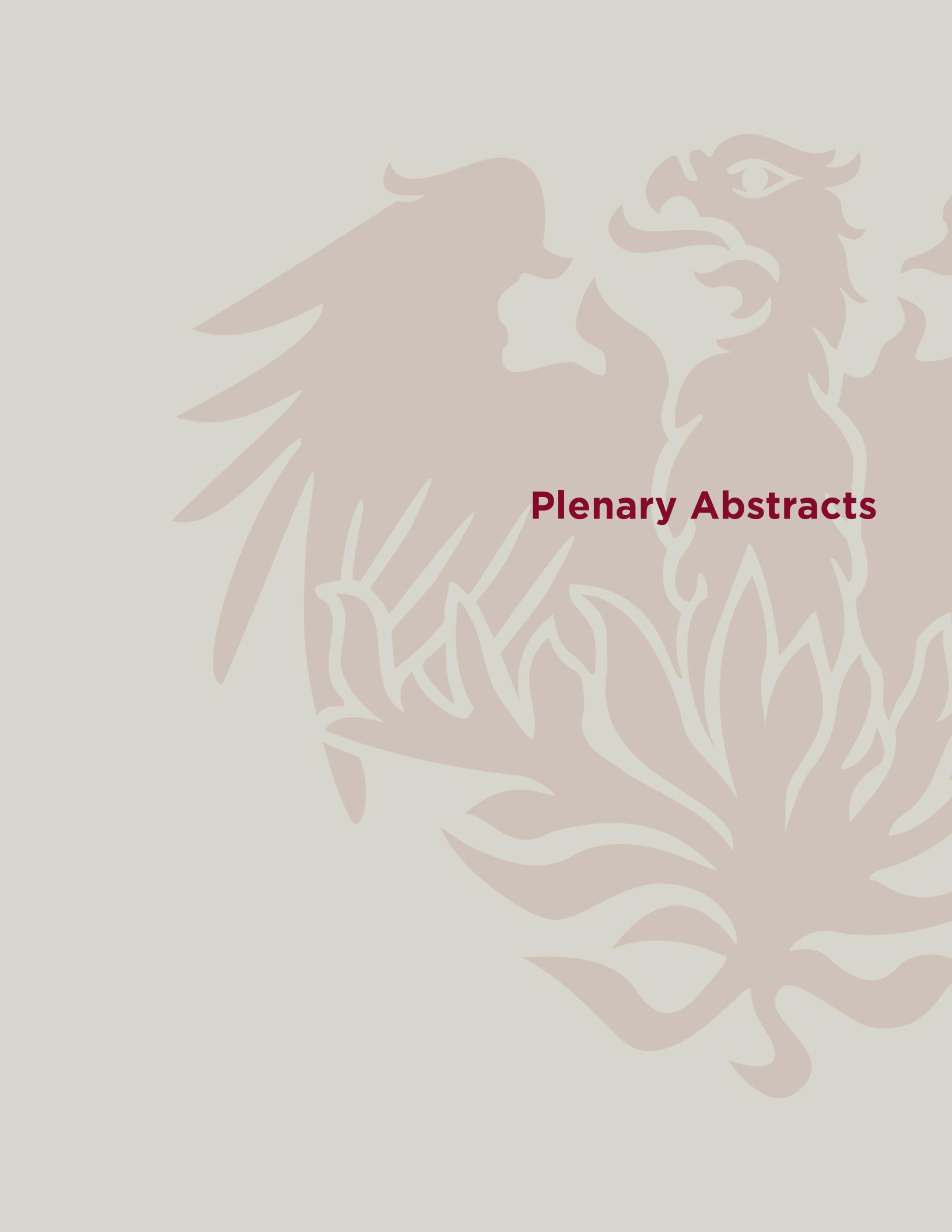
**Russell Reid, MD, PhD** is a Professor of Surgery and Associate Professor of Pediatrics in the Section of Plastic and Reconstructive Surgery at the University of Chicago. He received both his MD and PhD from Harvard Medical School in 1998, completed his residency in plastic surgery at Northwestern University/McGaw Medical Center, and did his craniofacial fellowship at the University of Pennsylvania. He returned to Chicago in 2006 to begin his academic appointment at the University of Chicago. Dr. Reid's research interests include the regeneration of bone for the repair of complex craniofacial defects, the biology of skull and facial sutures, and genetic expression in craniofacial development; topics on which he has published extensively. He also studies ways to improve diagnostic testing for craniofacial patients. He is currently the Bernard Sarnat Scholar of Craniofacial Research and Director of the Cleft Lip and Palate Team, is a member of the MSTP Admissions Committee and recently joined the Diversity and Inclusion Advisory Board. Dr. Reid gives regular lectures in both graduate and continuing medical education, and has been a consistent research mentor to a wide range of medical trainees. Each year, plastic surgery residents consider Dr. Reid one of the best teachers, and he has received the Teacher of the Year award for two consecutive years (2015, 2016) by the graduating plastic surgery residents.



### Konstantin Umanskiy, MD

Associate Professor of Surgery in the Section of Colon and Rectal Surgery

**Konstantin Umanskiy, MD** is an Associate Professor of Surgery in the Section of Colon and Rectal Surgery at the University of Chicago. He began his medical training in Moscow, Russia, and earned his MD from Case Western Reserve University School of Medicine in 2000. He completed his residency at the University of Cincinnati and fellowship at the John H. Stroger, Jr. Hospital of Cook County. Dr. Umanskiy was appointed to a faculty position at the University of Chicago in 2008, and became an Associate Program Director of the General Surgery Residency in 2011 and a Program Director of the Colon and Rectal Surgery Residency in 2012. His clinical and research interests include innovative surgical techniques, especially robotic applications for colon and rectal surgery, and he is a member of the multidisciplinary Inflammatory Bowel Disease Center. Dr. Umanskiy has won two Excellence in Teaching Awards from the Department of Surgery, and a Best Video Award for his demonstration of a robotic surgical technique at the American Society of Colon and Rectal Surgery (ASCRS) Annual Meeting in 2014. He has been involved in education since arriving at the University of Chicago, and is the Founder and Director of the Surgical Skills Curriculum, and the Director of Surgical Simulation, among other leadership positions in residency training programs. Dr. Umanskiy completed the Medical Education, Research Innovation, Teaching and Scholarship (MERITS) Fellowship in 2015.



## **Plenary Abstracts**



# Teaching Sepsis: An Innovative Medical Education Initiative to Improve Sepsis Management in the Emergency Department

RACHEAL GILMER, MD; MICHAEL WARD, MD

**STATEMENT:** Sepsis protocols have been shown to significantly lower mortality rates. A protocol was developed at the University of Chicago Emergency Department (ED), but its use was inconsistent.

**OBJECTIVE:** Given the nature of academic EDs, treating providers are continually changing. An online tutorial, focusing on sepsis education and protocol use was developed. We hypothesized online training would improve provider knowledge and the use of the sepsis protocol in patients with severe sepsis and septic shock (SS/SS).

**DESCRIPTION:** The tutorial was given to residents rotating through the ED beginning July 2016. Compliance surrounding process measures were captured for individual providers before and after training. Charts were identified using CMS-specified ICD-10 codes for SS/SS. Pre- and post-test questions were used to assess understanding of sepsis fundamentals.

**RESULTS:** From February-September 2016, 90 charts were abstracted with 55 providers completing the training. There were similar rates of shock (61.8 vs 51.4%,  $\chi^2(1,N=90)=0.95$ ,  $p=0.33$ ) and mortality (23.6 vs 14.3%,  $\chi^2(1,N=90)=1.17$ ,  $p=0.28$ ) for the pre- and post-tutorial groups, respectively. The post-tutorial group showed improvement in the use of the order set (29.1 vs 51.4%,  $\chi^2(1,N=90)=4.54$ ,  $p=0.033$ ) and timer (30.9 vs 65.7%,  $\chi^2(1,N=90)=10.5$ ,  $p<0.01$ ). There was no improvement in the initiation of antibiotics (87.3 vs 91.4%,  $\chi^2(1,N=90)=0.37$ ,  $p=0.54$ ), fluid administration (58.2 vs 51.4%,  $\chi^2(1,N=90)=0.4$ ,  $p=0.53$ ), initial lactate (100 vs 97.1%,  $\chi^2(1,N=90)=1.6$ ,  $p=0.21$ ), or fluid documentation (27.3 vs 14.3%,  $\chi^2(1,N=90)=2.08$ ,  $p=0.15$ ) for the pre- and post-tutorial groups, respectively. There was a decrease in repeat lactate measurement (98.2 vs 85.7%,  $\chi^2(1,N=90)=5.34$ ,  $p=0.021$ ) for the post-tutorial group. The post-test showed improved accuracy of survey questions (43.5 [SD=24.5] vs 57.0% [SD =35.1],  $t(54)=2.66$ ,  $p=0.01$ ) compared to pre-test questions.

**CONCLUSION:** The severity of illness in patients before and after the tutorial were similar. There was improvement in the use of sepsis process tools (timer and order set) but no change in the downstream process measures. Similar studies have shown improved sepsis measures with use of the tools; further studies would be needed to elucidate this paradoxical effect. Results may be subject to bias through the Hawthorne effect. Chart abstraction will continue to inform decisions regarding future changes to the tutorial to optimize learner education and improve process compliance.



Scholarship & Discovery



Research Funded by the ADME

# Does Patient Preference for Female Obstetrician-Gynecologists Negatively Influence the Salaries of their Male Counterparts?

CINDY ZHANG, MS3; DIANE COLE, MBA; MARCI ADAMS, MPH; RICHARD SILVER, MD

**STATEMENT:** Male medical student interest in the field of obstetrics-gynecology has significantly decreased in the last three decades. Concern about patient preference for female providers has been described as one of the factors influencing this decreased interest. Though male medical students considering obstetrics-gynecology may worry about their future ability to retain a sufficiently large patient cohort, the effect of patient preference for provider gender on physicians' productivity and compensation has not yet been described.

**OBJECTIVE:** To explore how differences in patient preference for provider gender affect physicians' salary and productivity among obstetrics-gynecology generalists at an academic integrated health system.

**DESCRIPTION:** An analysis of productivity and salary data for employed obstetrician gynecologists was performed. Data were abstracted from the electronic record system that included financial and productivity measures. Gross charges, net collections, physician payroll information, work relative value units (wRVUs), new and existing patient encounter volumes and clinical full-time equivalent (FTE) status were compared year over year by physician gender using a repeated measures analysis of variance (ANOVA) test.

**RESULTS:** From 2006-2016, the number of employed obstetrician-gynecologists grew from 8.0 to 25.7 FTE. Female to male provider ratios increased over time because a greater proportion of women were hired in each of the 11 years. In each year studied, female physicians saw approximately twice the number of new patients per FTE compared to male providers ( $p=0.0025$ ). In contrast, both genders saw a similar volume of return visits per FTE during all 11 years. In spite of the disparity in new visit provider gender preference, absolute salary was numerically higher for the male providers but these differences were non-significant ( $p=0.13$ ). Total annual charges also showed non-significant increases favoring male physicians and there were no significant differences in total collections between genders ( $p=0.19$ ). Differences in total wRVUs were also non-significant between men and women ( $p=0.15$ ), but average wRVUs per encounter were significantly higher among male physicians ( $p=0.02$ ). When salaries were expressed as earnings per wRVU produced, no significant gender differences were observed.

**CONCLUSION:** New patients had a clear preference for female providers for first encounters that was unchanged over the study timeframe. However, this preference did not result in gender differences in either total productivity or in salary. In this integrated health system, employed physician salaries appear to be driven primarily by productivity, as intended. Uniform compensation models can promote fair payment in groups comprised of both men and women physicians, independent of subjective factors that may foster inequity in other systems of employment and compensation. Our findings are an encouraging sign that models for fair and gender-neutral compensation are effective and that men considering a career in obstetrics and gynecology should not consider decreased productivity and wage disparity as a major determinant in specialty selection. Other disincentives notwithstanding, we would encourage male medical students to consider obstetrics and gynecology among other fields based primarily upon interest in and aptitude for the provision of women's healthcare.

# Geographic Trends and Regional Mobility for United States Allopathic Seniors Participating in the Residency Match

CLAIRE SHAPPELL, MD; JEANNE FARNAN MD, MHPE; JOHN MCCONVILLE, MD; SHANNON MARTIN, MD, MS

**STATEMENT:** The volume of applications for medical residency positions is on the rise, making it difficult for program leaders to evaluate individuals holistically and for applicants to determine their fit and competitiveness at programs. In addition to traditional “screens,” such as United States Medical Licensing Examination scores or the Medical Student Performance Evaluation, some have considered geography as way to help determine applicant fit. Anecdotally, perceptions that applicants are likely to remain in their home regions may affect interview offers or rank decisions. However, beyond recent literature in competitive surgical specialties utilizing small data sets created from resident lists published on program websites, little is known objectively about geographical trends in the residency match.

**OBJECTIVE:** Our aim was to use a large, nationwide database to characterize geographic trends and regional mobility for United States (US) graduating seniors participating in the National Resident Matching Program (NRMP).

**DESCRIPTION:** De-identified group-level data were obtained from the NRMP for all US graduating seniors participating in the 2011-2015 Main Residency Matches in all specialties. Data were grouped into nine geographic divisions and four regions based upon applicants’ medical schools using US census definitions. Study outcomes were based upon the geographic division and region of the matched program. Data were analyzed from applicant and receiving program perspectives. Chi-square and logistic regression analyses were performed using Stata.

**RESULTS:** Of 84,810 US seniors, 80,707 matched. Matched applicants most commonly matched at a program in the same geographic division ( $n=50,809$ , 51%) and region ( $n=40,973$ , 63%) where their medical school was located. Percentage of applicants matched in their medical school division varied from 41% ( $n=985/1450$ ) in the Mountain division to 66% ( $n=4512/6872$ ) in the Pacific division, with mean of 49% (+/- 8.1). From 2011 to 2015, the proportion of applicants matched in their home region did not change significantly ( $p=.23$ ). From the program perspective, overall 48% of matched applicants hailed from medical schools in the same geographic division, with range from 26% (Mountain) to 67% (West South Central).

**CONCLUSION:** US graduating seniors from 2011-2015 were most likely to match at a program in the same geographic division and region where they attended medical school. However, significant mobility remains in all areas of the country. This is the first objective study utilizing NRMP data to address geographic trends in the Match.





## Abstracts



# Facilitating Patient-Centered Learning through a Longitudinal Patient-Partnered Clinical Experience: Lessons Learned with Program Expansion

JOYCE TANG, MD, MPH; ANSHU VERMA, MD; TIA KOSTAS, MD;  
VALERIE PRESS, MD, MPH; JOSEF KUSHNER, MS2; LAUREN WIKLUND; NICOLE GIER, LCSW;  
VINEET ARORA, MD, MAPP; JEANNE FARNAN, MD, MHPE; DAVID MELTZER, MD, PhD

**STATEMENT:** Patient-centered care improves 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 a patient's care.

**OBJECTIVE:** The Patient-Centered Longitudinal Experience (PCLE) was developed and implemented as an elective track within the first year Longitudinal Program at the University of Chicago. Program objectives were to improve student understanding of patients' experiences with illness and interactions with the healthcare system, and to appreciate the importance of the doctor-patient relationship and roles of interprofessional providers. After a successful pilot, we expanded PCLE in 2016-17 from 16 to 34 students, and from 1 to 3 clinical settings which offered an interprofessional approach to care of high-utilizing patients: the Comprehensive Care Program, the Chronic Obstructive Pulmonary Disease readmissions reduction program, and high-risk pediatrics clinics.

**DESCRIPTION:** Groups of two students were paired with two patient partners, a physician, and an interprofessional team to co-navigate their patients' interactions with the healthcare system. Patient partners were selected for frequent healthcare visits, poor social support, and willingness to work with students. Over a nine-month period, students were to complete at least six clinical encounters across two or more settings (primary care, specialty care, interprofessional care, inpatient admissions, or home visits), check in with patients by phone, and meet with their physician preceptor monthly. Students not assigned to PCLE participated in physician-led preceptorships in a single healthcare setting. All students attended an introductory lecture on behavioral goal-setting, medication reconciliation, and home visits.

**RESULTS:** Of 96 first year medical students, 34 were assigned to PCLE (11 opted in; 23 were randomly assigned). Over a nine-month period, PCLE students completed a mean of six visits and three phone calls with their longitudinal patients across three settings. PCLE students described significant logistical challenges to connecting with patients due to conflicting classes, and patients cancelling visits or not answering calls. A qualitative analysis of lessons learned among PCLE students elucidated themes of patient-centered learning (patient perspective, burden of illness, challenges to navigating the healthcare system); the value of the doctor-patient relationship; and the importance of care coordination: "I learned about what it is like from the perspective of a patient with chronic disease and how difficult it can be to navigate and successfully communicate within the healthcare system." In comparison, students participating in traditional, clinical preceptorships showed a marked difference in learning themes, including biomedical learning (diseases, clinical skills), and learning how a clinic functions: "[I learned] how the ER works, how the EMR is managed, how to better conduct a history of the patient." An ongoing analysis of student reflective essays is expected to enhance these findings.

**CONCLUSION:** Students participating in PCLE gained valuable exposure to patient challenges in navigating the complex healthcare system and developed insight into their potential role in care coordination. However, logistical challenges precluded more frequent interaction and diminished student enthusiasm for the program. Efforts to decrease logistical challenges for students will need to be balanced with the potential implications of selecting a patient population with fewer barriers to care.



## Differences in How Male and Female Medical Students Perceive the Gender Gap in Obstetrics and Gynecology

CINDY ZHANG, MS3; RICHARD SILVER, MD

**STATEMENT:** Obstetrics and Gynecology (OB/GYN) has one of the largest proportions of active female physicians among all specialties; in 2017, 85% of residents were women. Researchers have found that male medical students cite their male gender and the specialty's gender imbalance as one reason not to go into OB/GYN. To date, there has not been a study that further describes this concern for being in the gender minority.

**OBJECTIVE:** To investigate what medical students think about the gender gap and how they believe their gender has influenced their perceptions of a career in OB/GYN.

**DESCRIPTION:** We performed a mixed-methods analysis using data from an anonymous online survey that was distributed to third-year (MS3) and fourth-year (MS4) medical students at the University of Chicago. The survey contained questions asking students to identify and rank positive and negative factors about OB/GYN, an 18-item Likert scale question with statements about possible effects of the gender gap, and free-response questions about how gender influenced their opinion of OB/GYN. Students who indicated they were not applying to OB/GYN were shown a question asking when they made that decision. A Pearson chi-squared analysis was performed to test for gender differences in positive and negative factors influencing opinions of OB/GYN, and for the timing of the decision to not pursue OB/GYN. The Likert scale questions were analyzed using nonparametric Mann-Whitney tests, while qualitative content analysis was performed for the free-response questions. A p-value  $\leq 0.05$  was considered significant.

**RESULTS:** The survey response rate was 51% (90/176); 45% of respondents identified as male, 54% female, and 1% other. MS3s and MS4s were equally represented. Both genders considered the gender gap a negative influence (95% vs 89%, P = .68). Men viewed their gender as a negative influence (P = .00) while women viewed it as a positive influence (P = .00). Both men and women agreed that patients preferred female providers. Men and women did not have significantly different attitudes toward how having majority female colleagues would affect workplace dynamics. In the male free responses, themes emerged about stigma against men in OB/GYN from providers and patients, perceptions of limited career opportunities, and difficulty relating to patients. Major themes among the female free responses were female empowerment, ease of connecting with patients, and a preference for more gender-balanced specialties. Among students who decided not to pursue OB/GYN, men were more likely to have decided before entering medical school (P = .03), while women were more likely to have decided after their third-year clerkship (P = .04).

**CONCLUSION:** The gender gap is a negative influence on student opinion of OB/GYN for both women and men, contrary to prior research. For men, the gender gap seems to support their perception that their gender as a negative factor for a career in OB/GYN due to stigma directed at them from both providers and patients that could limit career opportunities, and the concern that their gender is a barrier against building patient relationships. Though women were similarly likely to view the gender gap as a negative factor and described a desire for a specialty with more equal gender representation, they also interpreted the gender gap to be a positive example of women empowering other women. The finding that men are more likely than women to have decided against pursuing OB/GYN before entering medical school suggests that attitudes about men in OB/GYN outside the medical community can have a significant impact on men's decision to pursue or not pursue the specialty.



## Engaging Pritzker Students in Interprofessional Chronic Disease Management: Integrating the Curriculum and Defining Value Added Roles within the ReCoVER QI Program

ALEX SPACHT, MS3; JOYCE TANG, MD; JEANNE FARNAN, MD, MHPE; TIA KOSTAS, MD; VINEET ARORA, MD, MAPP; MEGAN HUISINGH-SCHEETZ, MD; STEVEN WHITE, MD; VALERIE PRESS, MD, MPH

**STATEMENT:** Competency in patient-centered care and interprofessional collaboration have been recognized as critical components of medical training by accreditation organizations. However, traditional pre-clinical 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 interprofessional teams, with their roles often limited to observation.

**OBJECTIVE:** The Chronic Disease Longitudinal Program strives to address interprofessional competency gaps through a patient-centered longitudinal experience for first-year medical students. 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 interprofessional 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' experience.

**DESCRIPTION:** 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 helped to determine value-add roles for students participating in the Chronic Disease Longitudinal Program. The proposed roles included performing medication reconciliation teach-backs, conducting follow-up and reminder calls to patients, and participating in motivational interviewing on topics such as smoking cessation. Based on these results, we piloted the program among six first-year medical students in three groups, each with two medical students. The goal was for each pair of medical students to be matched with two patients, together they would attend at least two clinic visits and have at least one phone call visit.

**RESULTS:** In piloting this program we identified several barriers that can be addressed to strengthen the program in future years. These included scheduling, such as when the patients' visits were in the morning when the students were in class, or the patients did not show up to their scheduled appointments, or that patients move away and therefore continuity of care is lost. Future work includes valuating changes in program knowledge, skills, and attitudes to determine how to increase the value of this program to the participating students for future years.

**CONCLUSION:** Pairing students with an existing care transitions program for Chronic obstructive pulmonary disease (COPD) provides an ideal learning environment to have students learn about chronic disease in a longitudinal fashion and to learn to work with interprofessional team members. Working with 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. Piloting this program among a small number of students provided the opportunity to identify key barriers to inform future efforts to improve upon and expand the program.



## The Pharmacy Clinical Experience for Second-Year Medical Students

TIA KOSTAS, MD; FARIDA ESAA, MS4; JIZ THOMAS, PHARMD, BCACP;  
KATHERINE THOMPSON, MD; JASON POSTON, MD; STACIE LEVINE, MD

**STATEMENT:** Adverse drug reactions are a common and preventable cause of hospitalizations in older adults. Therefore, educating trainees on medication management is a priority. Additionally, the Liaison Committee on Medical Education requires medical schools to prepare students to collaborate with other health professionals, such as pharmacists, so interprofessional education is a priority.

**OBJECTIVE:** This study aims to improve medical student confidence in documenting a patient's complete medication list through an interprofessional pharmacy clinical experience at the Pritzker School of Medicine (PSOM).

**DESCRIPTION:** During the 2015-2016 academic year (AY), all second-year PSOM students rotated through either the Medication Therapy Management (MTM) clinic or Anticoagulation Management Service (AMS) in the Primary Care Group (PCG) (data presented at Medical Education Day 2016). During AY 2016-2017, this pharmacy clinical experience was enhanced by expanding to involve other pharmacy clinics: AMS, heart transplant clinic, or pre-renal transplant clinic. Students were allowed to choose the date, time, and clinic that they joined, though there were limited spaces in the heart transplant and pre-renal transplant clinics. This 90-minute experience involved working directly with pharmacists, pharmacy trainees, and patients. Students completed brief surveys after their experience.

**RESULTS:** During AY 2016-2017, the survey response rate was 51% (43/84). The majority of respondents joined AMS clinic (70%, 30/43), with fewer joining the heart transplant (21%, 9/43) and pre-renal transplant (9%, 4/43) clinics. The majority of respondents felt that the length of the experience was appropriate at 90 minutes (86%, 37/43), with 14% of respondents (6/43) noting that the experience was too short. The majority (86%, 37/43) of respondents agreed that this experience made them more likely to consult with pharmacists in the future, while 14% (6/43) felt that it did not change the likelihood that they would consult a pharmacist. When combining data from AY 2015-2016 and AY 2016-2017, the vast majority of respondents felt that the pharmacy clinical experience should be continued for future students (94%, 120/127), while a small minority felt the experience should not be continued (3%, 4/127) or were unsure (2%, 3/127). Furthermore, on a 5-point Likert scale (1=not at all confident, 5=extremely confident), there was a statistically significant increase in mean confidence in documenting a complete medication list from before ( $2.5+/-0.8$ ) compared to after ( $3.6+/-0.7$ ,  $p<0.0001$ ) the pharmacy clinical experience.

**CONCLUSION:** An interprofessional pharmacy clinical experience for second-year medical students was associated with a statistically significant increase in student confidence in documenting a patient's medication list. According to student participants, they are more likely to consult with pharmacists in the future, and feel this experience should be continued for future medical students.

## The Real Seniors of Montgomery Place: Using Trained Patients in Medical Student Education on Advance Care Planning

SARAH NUSSBAUM, MS2; SONYA OYOLA, MD; SHELLIE WILLIAMS, MD;  
JANICE BENSON, MD; ALIZA BARON, AM; SHEWANNA WACKMAN; STACIE LEVINE, MD

**STATEMENT:** Advance care planning (ACP) is a critical component of quality end-of-life (EOL) care, yet is infrequently taught in medical training. A novel curriculum on ACP affords third-year medical students (MS3s) the unique opportunity to practice EOL care discussions with a trained geriatric patient in the safety of the senior's home.

**OBJECTIVE:** To provide medical students an opportunity to practice ACP discussions in a safe, supportive environment, and to assess the impact of the ACP curriculum on students' attitudes and comfort with ACP discussions.

**DESCRIPTION:** From 2012-2015, 223 MS3s participated in a required ACP course during their Family Medicine Clerkship. Seniors from a local retirement community received instruction as Trained Patients (TPs) to participate in mock, in-home interviews and evaluate students' interviewing and communication skills. MS3 interview preparation included: an online module on ACP (University of North Carolina), a one-hour didactic, a video sample of ACP interview, an interview guide, and supplemental readings. Using a semi-structured interview questionnaire, pairs of MS3s conducted ACP interviews with TPs who gave verbal and written feedback on their interviewing skills. Student evaluations included: reflective essays, pre/post survey assessing confidence in skills related to discussing ACP, and TP feedback. Students also attended a one-hour debriefing session with faculty.

**RESULTS:** Reflective essays were evaluated using a grounded theory qualitative analysis, resulting in the following themes: (1) students' personal feelings, attitudes and observations about conducting an interview on ACP; (2) observations about the process of relationship-building (doctor-patient), both verbal and nonverbal; (3) learning about and respecting patients' values and choices; and (4) the importance of practicing the skill of talking with patients about ACP in medical school. Students' confidence in skills significantly improved in all seven domains ( $p<0.001$ ): (1) introduce subject of EOL; (2) define advance directives; (3) assess values, goals, and priorities; (4) discuss prior experience with death; (5) assess expectations about treatment and hospitalization; (6) explain CPR and outcomes; (7) deal with own feelings about EOL and providers' limitations. TPs verbal and written feedback about students' interviewing skills was uniformly positive.

**CONCLUSION:** The use of in-home interviews with senior TPs during a medical student curriculum on ACP provides an opportunity to practice interviewing seniors, learning first-hand about their values, beliefs, and attitudes about end-of-life care in an unscripted exchange. Far from a high-stakes hospital setting and with the luxury of time, the home environment builds students' confidence and comfort conversing with seniors and receiving feedback in a "real" setting, thereby improving comfort and confidence in approaching these conversations for future patients. Future work will evaluate the use of TPs in other geriatrics curricula.

## The Impact of Group Assessment on Exam Score Trends in Medical School Gross Anatomy

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CALLUM ROSS, PHD

**STATEMENT:** The gross anatomy laboratory is a crucial learning environment for medical students to develop skills related to professionalism, teamwork, and giving/receiving feedback. Dissection groups allow for the development of longitudinal relationships among students that help cultivate these skills. Despite these positive attributes of team learning in the anatomy laboratory, group assessment is not well-studied in this context. Furthermore, there are potential negative outcomes associated with group assessment in general, including unequal contributions of group members and the potential for a group score simply reflecting the abilities of the highest performing individual. This potential effect remains untested in the context of medical school gross anatomy.

**OBJECTIVE:** This study aims to assess the association between group practical exam scores and individual practical exam scores to determine whether the addition of a group component of assessment impacts individuals' knowledge acquisition, as measured by practical exam scores. We hypothesize that groups maintain consistent high-scoring individuals throughout the course, and that group exam scores are more strongly correlated to the highest individual score within the group than to the mean individual score of all group members.

**DESCRIPTION:** The Human Body is a 12-week human anatomy course for first year medical students comprising six dissection-based modules. At the end of each module students must pass a practical exam in which the students identify pinned structures on the dissected cadavers in the laboratory. A group component of the practical exam was introduced such that students retake the same practical exam together with their dissection group after taking it individually. The group practical exam score accounted for 15-percent of an individual student's total practical exam score. Pearson correlation coefficients between group score and highest within-group individual score and between group score and mean within-group individual score were calculated for each module. These correlations were compared within each module via Z-scores calculated from Fisher z-transformation based on the correlation coefficients.

**RESULTS:** Group exam scores were nearly always higher than any individual score within the group. Of the 20 dissection groups, 12 groups contained the same one or two high within-group individual scorer(s) on the majority of (i.e. at least four out of six) exams, while eight groups did not. There were no statistically significant differences between the correlations between group score and high individual score and between group score and mean individual score in any module. This was true both for the overall class and for the twelve groups that contained consistent high scorers.

**CONCLUSION:** No statistical trends indicated that group members relied on a consistent high-scoring individual to succeed on the practical exam with the addition of a group component of the assessment. Educators can thus capitalize on the unique group-based learning environment of the anatomy laboratory to further develop professionalism competencies without jeopardizing individual knowledge acquisition.

## A Student-Led Initiative to Improve Pre-Clinical Medical Student Exposure to Surgical Subspecialties

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ALLYSON TANK, MS2; MIKHAIL PAKVASA, MS2; JEANNE FARNAN, MD, MHPE;  
ADAM BODZIN, MD; LISA CANNON, MD

**STATEMENT:** Pre-clinical medical students often have limited exposure to transplant surgery.

**OBJECTIVE:** To develop an immersive transplant surgery shadowing program for pre-clinical medical students, and determine its effect on specialty choice.

**DESCRIPTION:** Student Transplant Action Team (STAT) connected students to the UCM transplant team through the existing paging framework. The transplant team coordinator notified participants about all appropriate procurement opportunities. All participants enrolled in the program attended a three-hour training session on scrubbing and aseptic technique. Orientation included a tour of the main surgical facilities at UCM, instruction on correct scrub and surgical gown use, and procedures for aseptic technique.

**RESULTS:** Thirty-nine students voluntarily enrolled for the 2016-2017 academic year with significant participation by the MS1 class (50/90 applied, 36/90 entered). The pager was activated 16 times in the six months following its inception with 13 students participating. All students who responded to the immediate post-shift follow-up survey reported the experience to be a valuable part of their medical education and 4/13 responses indicated an increased interest in surgery. Major themes from the narrative responses included: appreciation for teamwork, increased understanding of the technical skills in surgery, a more realistic perspective of the surgical lifestyle, and a greater understanding of organ donation. Major themes discussed in formative feedback included: greater discussion of organ donation ethics, more pager training, and reinforcement of scrub training. Formative feedback from the surgical team emphasized the positive role of having a senior medical student on the team to help bridge the gap between a pre-clinical student and the transplant team.

**CONCLUSION:** Participants found that STAT provided them with a deeper insight into the organ donation process, the field of transplant surgery, and of the surgical environment. Many students found scrub and aseptic technique training particularly helpful in promoting future exploration of transplant surgery and other surgical fields. Familiarity with the surgical setting was also commonly described in feedback and likely beneficial to participants regardless of future career intentions by providing greater familiarity when approaching surgical and OB/GYN clerkships. STAT is an easily implemented extracurricular program that promises to have a significant impact on pre-clinical students' perspectives of surgical subspecialties and transplant surgery. The simplicity of the pager system will allow other peer institutions to implement similar programs. Increased student exposure to transplant operations may benefit both those students considering careers in surgical subspecialties and any student who encounters organ transplantation in their future practice.

## Expanding the Culture of Trauma-Informed Care: A Pilot Training Workshop for Medical Students

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RACHEL CANE, MD, PHD; BRAD STOLBACH, PHD

**STATEMENT:** Trauma-informed care entails healthcare providers' recognition of the long-lasting impact that traumatic events can have on patients and their families. A trauma-informed approach to individuals affected by community violence ultimately enables recovery and resilience. Awareness of the far-reaching effects of trauma is particularly important at The University of Chicago Medicine (UCM), which serves neighborhoods in which extreme violence is part of everyday life. Comer Children's Hospital treats more than four times the national average of children affected by violent injuries. Furthermore, the opening of a Level I adult trauma center in May 2018 will increase the number of patients seen for injuries related to community violence. An interprofessional educational initiative to train healthcare workers in trauma-informed care was introduced in February 2016. However, prior to the current project, this initiative had not focused on medical students, who comprise a unique population of impressionable individuals eager to learn the best ways to care for patients.

**OBJECTIVE:** The primary objectives of this project were to bring trauma-informed care education to a cohort of medical students at the Pritzker School of Medicine and to assess students' response to a trauma-informed care workshop in order to determine whether future students would benefit from such a training and whether the training should be implemented in the undergraduate medical education curriculum.

**DESCRIPTION:** In this project, the workshop currently provided to UCM staff (McNamara, Cane, & Stolbach, 2016) was offered to medical students. The workshop consisted of a didactic portion, which introduced the Five Points of Trauma-Informed Care (developed specifically for this curriculum), followed by a dialogue between participants and a mother of a gun violence survivor. Pre- and post-surveys were administered and analyzed.

**RESULTS:** All participants ( $n = 21$ ) who responded to the questions "Would you attend a similar workshop in the future?" and "Do you think future medical students would benefit from this workshop?" answered "Yes". On a scale of 1 to 10, participants indicated improvement in all capabilities included in the Five Points of Trauma-Informed Care: (1) ensure safety (+2.3, SD 1.5), (2) screen patients for trauma exposure (+3.4, SD 1.6), (3) understand context (+2.7, SD 2.3), (4) avoid re-traumatization (+3.1, SD 1.9), and (5) prepare patients for safety and healing after discharge (+3.1, SD 1.8). The majority of participants indicated the workshop would be most beneficial during the first year, suggested expanding the dialogue portion of the workshop, and were able to identify barriers to providing trauma-informed care.

**CONCLUSION:** The results indicate that medical students appreciated and benefited from this workshop. They unanimously recommended that future students attend a similar training, especially as part of the first-year curriculum. Their responses demonstrate the perceived importance of training all members of the UCM system to provide trauma-informed care. These results are encouraging; however, due to low sample size, we hope to conduct further trainings with medical students, potentially as part of the Clinical Skills 1(b) course.

# A Qualitative Investigation of Student Experiences in LGBTQ Medical Education at Pritzker School of Medicine

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JEANNE FARNAN, MD, MHPE

**STATEMENT:** In 2016, the National Institute of Minority Health and Health Disparities formally designated sexual and gender minorities (SGM) as a disparity population for NIH research. SGM populations are more likely to experience adverse health outcomes than are heterosexual/cisgender populations. However, a 2011 study revealed that medical school curricula across the US dedicated a median of five hours toward teaching LGBTQ/SGM-related content, with 33.3% of medical schools reporting zero hours dedicated during clinical years. A Pritzker School of Medicine (PSOM)-specific needs-assessment survey conducted by medical students in 2015-2016 demonstrated no difference in medical students' knowledge of LGBTQ health topics across the undergraduate curriculum.

**OBJECTIVE:** To investigate the preparedness of PSOM's medical students in addressing SGM-specific health issues and working with SGM patient populations during their pre-clinical and clinical years.

**DESCRIPTION:** An interview guide was developed utilizing expert review and review of the salient literature to assess current PSOM fourth-year medical students' perceived preparedness and confidence in addressing unique SGM health challenges, as well as their perspectives pertaining to the medical learning environment for SGM-related topics. The interview guide was comprised of questions designed to collect qualitative data regarding the interviewees' pre-clinical and clinical experiences regarding SGM patient populations, knowledge of SGM-specific health challenges, hidden curricular exposure to SGM issues, and formal curricular exposure to SGM patient care.

**RESULTS:** Preliminary emergent themes (N=6 interviewees): (1) Comfort levels in addressing SGM-related health issues and advocating for SGM populations increased between pre-clinical and clinical years. Students reported an overall increased proficiency in addressing health issues of all populations, as opposed to explicit medical education about SGM-related health issues in clinical years. (2) No instances of clinical curricula in core rotations related to SGM healthcare topics were recalled. (3) Suggestions for curricular improvements included: incorporation of fourth-year SGM-related electives, incorporation of the analPap smear technique into Clinical Skills. (4) Clinical environments were perceived to be neutral toward SGM populations and/or topics. There was overall perceived high levels of professionalism in hospital staff. Some interviewees cited "cold" environments, disinterest in patients' social/sexual histories, and focus on disease state.

N=5 survey respondents. Completion rate = 83.3%. Gender identity: 4 female; 2 male. Sexual Orientation: 4 heterosexual; 1 queer. Race: 3 Asian-American; 2 white. Religion: 1 agnostic; 2 atheist; 2 Catholic.

**CONCLUSION:** Our preliminary analysis demonstrates differences in SGM-related curricula in the pre-clinical and clinical years, as well as changes in overall comfort with increasing clinical experience. The clinical learning environment also factors significantly in the quality of the discussion around SGM health topics. We aim to interview 20 fourth-year medical students or until thematic saturation is reached.

## Assessing Quality of Diabetes Care and Medical Student Volunteer Knowledge of Diabetes Care at the University of Chicago CommunityHealth Clinic

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HANNAH WILSON, MS2; MIKHAIL PAKVASA, MS2; JULIE OYLER, MD**

**STATEMENT:** The University of Chicago CommunityHealth Clinic (UChicago CHC) is a free clinic run by first-year medical students that serves uninsured patients at risk for chronic conditions such as diabetes mellitus (DM). It is currently unknown whether diabetic CHC patients receive appropriate evidence-based diabetes management. Moreover, UChicago CHC volunteer student knowledge about diabetes care has not been previously characterized.

**OBJECTIVE:** The aims of this study were (1) to characterize the diabetic patient population at the UChicago CHC clinic and its level of diabetes control, (2) to assess the current medical student volunteer level of knowledge of evidence-based diabetes care and their level of comfort with diabetes care delivery, and (3) to ultimately determine whether there exists a need for an educational intervention for first-year students regarding diabetes care.

**DESCRIPTION:** We conducted retrospective chart reviews of patients seen at CHC between August 2016 and August 2017. Patient demographic characteristics were assessed. Among diabetic patients (as defined by a documented diabetes diagnosis and a prescribed medication), we assessed diabetes control as measured by Healthcare Effectiveness Data and Information Set (HEDIS) measures, such as Hemoglobin A1c (HbA1c) and blood pressure control.

We used RedCap to administer an online survey to medical student volunteers with multiple choice questions regarding their knowledge of current diabetes guidelines. We used Likert scale items to assess confidence and satisfaction related to their care for diabetic patients. Standard descriptive statistics and paired Wilcoxon signed-rank tests were used for data analysis.

**RESULTS:** We reviewed medical records of 135 patients, 18 (13.3%) of which had a confirmed diabetes diagnosis. Of patients with diabetes, seven (38.9%) had controlled diabetes defined by HbA1c < 7.0%; 12 (66.7%) had a most recent LDL level < 100; and 11 (61.1%) and seven (38.9%) had documented diabetic eye and foot exams, respectively, within the past year. Notably, of the eight patients eligible for the CHC Diabetes Care Group, a specialized program to manage diabetes care at CHC, only four had been enrolled.

Of 20 eligible medical student volunteers, 17 (85%) completed the survey. Only five (29%) respondents felt currently prepared to care for diabetic patients. Before starting to volunteer, none of the students felt satisfied with their diabetes knowledge; this increased to five (29%) students who felt satisfied after volunteering at CHC for eight months ( $p = 0.002$ ). However, less than 36% of respondents knew the current screening and diabetes control recommendations for all other HEDIS measures, with the exception of HbA1c levels. Importantly, 16 (94%) students agreed that a structured workshop on chronic conditions like diabetes would be helpful.

**CONCLUSION:** We identified areas for improvement of diabetes care at UChicago CHC based on accepted guidelines. Though medical student volunteers endorsed an increase in confidence when caring for diabetic patients compared to the beginning of the year, their objective knowledge of diabetic guidelines remained low. These findings provide a compelling argument for the creation of a targeted educational intervention for first-year medical students before they begin volunteering at free clinics.

## Medical Students' Perspectives on Careers in Hospital Medicine: A National Study

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**STATEMENT:** We investigate whether there are certain predictive factors that ultimately play a role in medical students' reported career interest in pursuing hospital medicine.

**OBJECTIVE:** Our paper investigates whether there are certain predictive factors that ultimately play a role in medical students' reported interest in pursuing hospital medicine as a long-term career, and whether the risk of burnout is an important factor in the decision.

**DESCRIPTION:** In January 2011, 960 third-year medical students from 24 U.S. allopathic medical schools were surveyed at baseline (adjusted response rate = 61%, 564/919), and six to nine months later when they became fourth-years (response rate = 84%, 474/564) at follow-up.

**RESULTS:** Women were more likely to report interest in careers as hospitalists (58.1% [49.3-66.8%], P=0.002). Higher levels (>\$200,000) of student debt were negatively correlated with choosing hospital medicine (17.9% [9.2-26.7%], P=0.02). Race/ethnicity and immigration history were not associated with choosing hospitalist careers.

Factors medical students perceive as important when choosing a career in hospital medicine include work-life balance, amount of debt, and length of training. Significantly, medical students considering hospitalist careers were more likely to report that perceived burnout between various specialties played an important influential role in their specialty decision-making (49.7 [42.2-57.2], vs. non-hospitalists 39.9 [32.8-47.0], P=0.03).

**CONCLUSION:** In conclusion, our national survey of medical students found that medical students considering hospitalist careers were more likely to report that perceived burnout between various specialties played an important influential role in their specialty decision-making. Given that students are reporting that they are considering burnout as a factor in their decision-making in favor of hospitalist careers, further studies are needed to explore what aspects of a hospitalist career are appealing to students.

## Development of a Medical School Clinical-Skills Course on Trauma-Informed Care of Survivors of Sexual Assault

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**STATEMENT:** Every year, 288,820 people in the US report experiencing sexual assault. Since its sequelae include serious mental and physical health issues, the healthcare system can play an integral role in fighting sexual assault by providing acute and longer-term care for individuals affected. The emergency department (ED) in particular serves as a primary point of care for survivors, encountering over 140,000 cases per year in the US. Even outside the ED, almost every physician will have patients who are survivors of sexual assault. Unfortunately, studies have shown that in the ED, survivors of sexual violence are often subject to re-traumatization via insensitive or victim-blaming language from medical staff and from the improper provision of recommended medical care. Thought should be given, therefore, to the development of training programs for healthcare professionals to ensure that they are prepared to meet the unique needs of this patient population.

**OBJECTIVE:** While rape myths and misconceptions still exist amongst healthcare professionals, studies from the UK and Florida have found that teaching medical students about the care of sexual assault survivors can be an effective way to change student attitudes about assault and improve their knowledge of proper treatment approaches. We therefore propose the development of an educational session on trauma-informed care for survivors of sexual assault, to be included in the Pritzker School of Medicine's Clinical Skills course. The session will include information on (1) the neurobiology of trauma, (2) best practices for sexual assault patient care, (3) common sources of re-traumatization in the healthcare setting, (4) an overview of ED medical care and the forensic exam, and (5) long-term care strategies.

**DESCRIPTION:** To develop this session, a pilot presentation was given to medical students in May 2017, led by the Illinois State Sexual Assault Nurse Examiner coordinator. Students completed both pre- and post-session surveys to evaluate the pilot's effectiveness. Surveys consisted of six Likert scale questions. Results from the pilot presentation are currently guiding the development of the formal educational session to be included in Pritzker's Clinical Skills curriculum for the 2017-2018 academic year.

**RESULTS:** The results from the pilot presentation surveys indicated that medical students are familiar with the myths surrounding sexual assault and sources of re-traumatization for survivors. The pilot presentation increased medical students' confidence in their understanding of the neurobiology of trauma and in their capacity to practice trauma-informed care. The surveys also indicated that medical students believe it is important for future physicians to be specifically trained to care for survivors of sexual assault.

**CONCLUSION:** We are currently using the results from the pilot presentation surveys to inform the development of a Clinical Skills session for second-year medical students on trauma-informed care of survivors of sexual assault.

## Describing What You See: Morphology Description Practice Sessions For Medical Students

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**STATEMENT:** A core skill that medical students must develop when evaluating dermatological complaints is the ability to accurately describe skin lesions, as it provides the 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, which is required for mastery. 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 language of dermatology.

**OBJECTIVE:** To help medical students develop their dermatological vocabulary and practice describing lesion morphology and to build student interest in dermatology.

**DESCRIPTION:** The program consists of lectures that introduce students to the terminology used by dermatologists, along with a systematic method of describing skin lesions. Students are shown pictures of common skin lesions and describe them using an anonymous polling software. Students are given immediate feedback on their descriptions. All responses are tracked longitudinally, allowing for performance monitoring over time. Additionally, data can be used to better understand how students with different levels of experience and interests describe skin morphology.

**RESULTS:** The first pilot session was held in the fall of 2016. A total of 31 medical students (M1-M4) participated, leading to 310 responses. The majority were undecided on specialty choice. Students demonstrated high rates of congruence compared to gold-standard image descriptions after initial session.

**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 this skill through structured morphology description practice sessions and immediate feedback.

## Training Medical Students as Certified Application Counselors for the Affordable Care Act: A Service Learning Approach to Improving Medical Student Health Insurance Literacy and Awareness of Barriers to Adequate Health Insurance

KARYN GERSTLE, MD

**STATEMENT:** Medical students are key stakeholders in the success of the Affordable Care Act (ACA) and/or future healthcare laws, yet few medical schools include training on the ACA or health insurance coverage as part of their curriculum. Increasing education on the ACA/healthcare laws and health policy has been shown not only to develop medical students into more active participants in health policy, but also to empower them to become more informed and effective patient advocates.

**OBJECTIVE:** To address this gap in education, the University of Miami Miller School of Medicine developed a novel, service learning approach to teach students health policy by credentialing them as Certified Application Counselors (CACs). With this training, students are able to assist consumers with insurance enrollment through the Healthcare Marketplace.

**DESCRIPTION:** Medical student volunteers were trained and credentialed as Certified Application Counselors (CACs) and provided assistance to consumers seeking health insurance through the federal Health Insurance Marketplace. Students completed required didactic and online lessons to learn about health insurance, the ACA, and health care policy and then applied that knowledge to assist consumers with health insurance education and enrollment.

Focus groups assessed the impact of the CAC training on our student volunteers. Facilitators used guided questions to encourage group discussion, although participants were encouraged to speak freely. Overall, 25 students participated in two focus groups.

**RESULTS:** Five prominent themes emerged from the discussions relating to experiences as a CAC: (1) Impact of CAC training on Medical Education; (2) Barriers to access to care; (3) Student reaction to training; (4) Consumer (buyers of health insurance) reactions to healthcare marketplace; (5) The medical school environment as a model for training of CACs.

Students noted that they chose to complete the CAC training in order to better understand health insurance: 31% of comments focused on the impact of the training on medical education. Twelve percent of comments were centered around student frustrations with the notion that, despite the implementation of the ACA, affordable health insurance was still not available to many patients (in Florida). Students shared that their experience as CACs offered them the opportunity to develop a much deeper understanding of the patient experience. Nearly 14% of all comments focused on empathy and the patient experience.

**CONCLUSION:** This initiative can be expanded to other medical schools to provide future physicians with a better understanding of the ACA and to support the communities in which they train. Students gained valuable insight into health insurance and the impact of social, financial, and political factors on access to health insurance and care, issues that are often underemphasized in medical education. Students were also able to gain a unique perspective on barriers to care and the experiences of consumers who struggle to navigate the health insurance system. Students were exposed to the realities of health care reform and the ACA's strengths and shortcomings, especially in a state like Florida where the decision to not expand Medicaid has led to many consumers falling in the "gap" and unable to obtain affordable health insurance.

This experience has elicited strong feelings of the need for ongoing improvement in our health care system and the importance of policy in that improvement. Many students shared that this awareness led to increased empathy for their patients, something that bears further formal exploration.

## Revision of the Developmental and Behavioral Pediatrics Resident Curriculum to Focus on Issues Affecting Persons with Disabilities

JESSICA EDISON, MD; PETER SMITH, MD, MA; SARAH SOBOTKA, MD, MSCP

**STATEMENT:** Persons with disabilities represent a significant proportion of health care recipients; however, disability-specific training is limited in graduate medical education. Furthermore, negative attitudes towards persons with disabilities have been shown to negatively affect the quality of healthcare for persons with disabilities. In particular, there is limited training on the legal framework and additional social challenges of having a disability.

To help address this issue, in 2010 the National Curriculum Initiative in Developmental Medicine created core competencies for residents involved in primary care. The new Developmental and Behavioral Pediatrics (DBP) Curriculum hopes to address some of these core competencies including: (1) Appreciate the historical context of the terms “medical model,” “social model” and “educational model” as they relate to deinstitutionalization and community integration. (2) Identify the common health disparities experienced by people with ID/DD [intellectual disability/developmental delay]. (3) Acknowledge the individual’s abilities, while recognizing and respecting the specific needs related to their disability. (4) Illustrate ways in which the human and civil rights of people with ID/DD may be compromised and describe ways in which health care providers can advocate to safeguard individual rights.

**OBJECTIVE:** The objective of this program is to enhance resident education by making the residents more aware of the challenges and progress made by people with disabilities, thus increasing their cultural competency. This includes developing a basic understanding of the laws and cases surrounding disability rights in the US and understanding the social model of disability. In addition, the new curriculum addresses media portrayal and its influence on public perception of both persons with disabilities and medical doctors.

**DESCRIPTION:** Previously, pediatric and Internal Medicine/Pediatric residents rotating through DBP were given three lectures on the following topics: Autism Spectrum Disorder, Attention Deficit Hyperactivity Disorder, and Supporting Children with Developmental Challenges: Early Intervention and Special Education. This year three new lectures have been added to the curriculum: Disability in US Society, Disability in US Film, and Portrayal of Doctors in American Television. There is also a feedback session to discuss the new lectures.

In order to determine the new curriculum’s effectiveness, residents and medical students will complete pre- and post-lecture surveys. Some residents will only receive the original three lectures. We will compare and contrast the results.

**RESULTS:** The project has received University of Chicago IRB approval. The new lectures have been piloted and enrollment has begun. Based on the feedback sessions, the new lectures are increasing residents’ awareness of issues surrounding disability and disability rights. Residents are also finding the lectures enjoyable.

**CONCLUSION:** There is a lack of knowledge among residents about disability issues and rights. Lectures can help bridge that gap. The next steps for this project are to understand its efficacy, modify the lectures in response to resident feedback, and establish the new lectures as a permanent part of the University of Chicago DBP Curriculum. In the future, the goal is to expand the lectures beyond the University of Chicago either through online access or by expanding to other pediatric residency training programs in the Chicagoland area.

## Outcomes of an Interdepartmental Quality and Safety Curriculum for Trainees

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**STATEMENT:** Current guidelines from the Accreditation Council on 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.

**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:** We designed a curriculum of three lessons that are spaced across the intern year. Each lesson focuses on one content area: quality improvement, quality assessment, and patient safety. A senior hospital leader discusses hospital priorities within each content area, and a faculty QI/PS educator teaches foundational knowledge. Lessons are delivered separately to Pediatric, Internal Medicine, and Surgery PGY-1 residents during their established protected conference times. Over the first two years of the curriculum, learners' knowledge and attitudes were assessed using pre-curriculum and post-curriculum surveys (pre-test and post-test). Graduating residents (PGY3-8) from all institutional programs were surveyed as historical controls. Adverse event reports submitted by PGY1 residents were measured on a monthly basis to assess skills.

**RESULTS:** PGY-1 residents participating in the curriculum were 61% female, 47% Internal Medicine, 33% Pediatric, 14% Surgery, and 5% Medicine-Pediatrics. Across two years, 94% of participants completed the pre-test; 112 of 140 (80%) of the participating residents completed both pre-test and post-test. In the pre-test, 67% of participants reported brief quality training in medical school and 90% reported brief safety training. Attitude of PGY-1 learners had statistically significant improvement in five questions. On average, the number of respondents who agreed with listed statements increased by 28%. In three questions, attitude scores were similar in post-testing compared with graduating resident controls, reflecting achievement of these goals following participation in the curriculum for PGY-1 residents. Knowledge scores improved with significance in all three content areas. All seven questions where respondents identified hospital leaders by name showed statistically significant improvement. The number of safety events reported by PGY-1s increased after the patient safety lesson, which was held in the fall.

**CONCLUSION:** The interdepartmental QI/PS curriculum we designed achieves QI/PS exposure as recommended in CLER guidelines and achieves our learning objectives. The curriculum demonstrated its feasibility for residents, faculty, and hospital leadership over two years, and our design supports efficient use of institutional faculty time and administrative resources. Our results show statistically significant improvement in total scores in all content areas. In post-curriculum assessments, PGY-1 attitude was comparable to graduating residents. Notably, after participating in the curriculum, learners increasingly identified and reported safety events, demonstrating engagement in institutional and CLER QI/PS priorities. Future work will focus on expanding delivery of the curriculum to all PGY-1 residents institution-wide.

## Improving GME-Nursing Interprofessional Team Experiences (IGNITE) in Clinical Learning Environments

VINEET ARORA, MD, MAPP; DEBRA ALBERT, MSN, MBA, RN, NEA-BC

**STATEMENT:** Interprofessional collaboration in clinical practice is associated with positive outcomes, such as improved patient and nurse satisfaction and reduced length of stay, among others. The Accreditation Council for Graduate Medical Education (ACGME) Clinical Learning Environment Review program recently called for greater interprofessional collaboration in institutional quality improvement initiatives. As part of the ACGME Pursuing Excellence Initiative, and in alignment with efforts to achieve Magnet recognition, UChicago Medicine GME and hospital leaders came together and developed the IGNITE program, as one platform to increase interprofessional collaboration.

**OBJECTIVE:** IGNITE aims to engage residents and nurses together in performance improvement projects and institutionally-sponsored performance improvement events, with the ultimate goal of improving healthcare delivery for our patients.

**DESCRIPTION:** The IGNITE program operates at two levels: the institutional level and unit level. At the institutional level, GME leaders partnered with Operational Excellence to develop IGNITE “Just Do It” events. These are abbreviated Kaizen events, enabling residents and nurses across the institution to collaboratively, and continuously, engage in performance improvement projects. The first Just Do It event was launched in February 2017, focusing on improving policy/procedures for inpatient peripheral IV placement.

On a smaller scale, our unit-based IGNITE program consists of resident-nursing teams composed of “positive exemplars” recognized for their strong interprofessional practice. Champion residents and nurses are selected through a process whereby nurses vote on resident role models, and nursing managers in each given unit select strong nurse leaders. Each month, champion resident-nursing teams meet with program leadership to discuss, develop and implement unit-specific performance improvement projects. We piloted the program with nursing staff and residents on 3 units (Surgery, Internal Medicine, Pediatrics) between 2015 and 2017.

**RESULTS:** The IGNITE Just Do It event received feedback from participants on the benefits of interprofessional collaboration and multidisciplinary working. The event led to institution-wide changes in procedures related to peripheral IV insertion. To date 34 nurses have been trained on ultrasound-guided peripheral IV insertion.

In our unit-based IGNITE pilot, all three teams chose to focus their project on physician-nurse communication; however, projects operationalized differently across the three units given varying contextual factors specific to each unit. As an example, the Pediatrics team began including nurses during morning rounds with the attending physician, and trained nurses to report via CALM (concerns, assessment changes, lines, monitors) template. Early data suggest that Pediatrics team has witnessed positive, sustained change in resident-nurse satisfaction and patient experience. Responses to ACGME surveys reported greater or sustained interprofessional teamwork in participating IGNITE programs compared to nonparticipating programs. Additionally, in all piloted programs, IGNITE helped nurse and resident participants better understand one another’s roles and approaches to quality improvement.

**CONCLUSION:** The IGNITE program successfully enabled residents and nurses to collaboratively work in performance improvement projects and institutionally-sponsored performance improvement events. Via ACGME Pursuing Excellence, our leadership team currently seeks to scale up these efforts to other units and residency programs in order to continue improving care delivery and experience at UChicago Medicine.



## Contraception and Shared Decision Making: Knowledge, Attitudes, and Reported Clinical Practice Among Medicine Residents and Faculty

REBECA ORTIZ WORTHINGTON, MD; JULIE OYLER, MD; AMBER PINCAVAGE, MD;  
JENNIFER RUSIECKI, MD, MS

**STATEMENT:** Internal Medicine (IM) and Medicine-Pediatrics (Med-Peds) physicians are responsible for providing primary care to medically complex women of reproductive age, yet past studies have shown that inadequate knowledge is a barrier to contraception counseling. Long Acting Reversible Contraception (LARCs) are the most effective forms of contraception with increased adherence and continuation rates. The Contraceptive CHOICE Project demonstrated an increase in LARC prescribing with structured communication interventions. Additionally, shared decision-making (SDM) is a method of communication that has been shown to improve patient satisfaction and promote adherence with contraception. We propose an innovative curriculum to teach medicine residents contraception counseling through the framework of SDM, as part of a larger quality improvement initiative for the primary care clinic at the University of Chicago. This study is a needs assessment of the residents' and faculty's knowledge of and attitudes towards contraception methods and SDM.

**OBJECTIVE:** Assess the following amongst University of Chicago Internal Medicine and Med-Peds residents and faculty to guide educational development curricula: (1) Frequency of and barriers to contraception counseling; (2) Knowledge of contraceptive methods, efficacy, and contraindications; (3) Knowledge of and attitudes towards SDM and contraception counseling.

**DESCRIPTION:** Two cross-sectional surveys were created and administered to University of Chicago IM and Med-Peds residents and faculty. The surveys were designed after extensive review of the literature on shared decision-making, contraception counseling and resident education in contraception. A panel of women's health and medical education experts at the Universities of Chicago and Pittsburgh vetted this survey, and it was piloted with an IM chief resident. Paper surveys were distributed to residents at educational conferences. Descriptive statistics and Wilcoxon Rank Sum tests were performed using Excel 2011 and RStudio v1.0.136.

**RESULTS:** A total of 38 residents from PGY-2 and -3, and 23 attendings completed the survey, with completion rates of 50% and 67%, respectively. Seventy eight percent of faculty and 66% of residents think it is "extremely" or "very" important that residents learn about contraception counseling. Twenty-two percent of faculty and 37% of residents felt they had not received adequate education or training about contraception. On a Likert scale of 5 (1="I need close supervision from a preceptor", and 5="I can teach this skill to others"), residents reported a median comfort level of 3 (IQR 2-3) for prescribing contraception. Faculty also ranked their level of comfort on an adjusted 4-point Likert scale (1="I need to refer the patient to a colleague/specialist", and 4="I can teach this skill to others") with 17% of faculty reporting comfort teaching this skillset. Residents and faculty rated shared-decision making as "very" important. The majority of residents and faculty identified that the hormonal implant, Mirena IUD, and tubal ligation were highly effective forms of birth control, but they under-recognized the effectiveness of the implant. Eleven percent of residents and 13% of attendings recognized atorvastatin as a teratogen.

**CONCLUSION:** While medicine residents and faculty at our institution feel contraception counseling is important there is a lack of knowledge and training in this area. However, residents and faculty both value shared decision-making, reflecting openness to this initiative. Residents report lack of knowledge as a barrier to performing contraception counseling, and faculty are not comfortable teaching contraception prescribing, both of which are reflected by low contraception knowledge scores. Both residents and faculty under-recognize the efficacy of the hormonal implant and do not always correctly identify teratogenic medications. Based on these results, we will emphasize LARCs, particularly the implant, and teratogenic medication management in the curriculum we develop.

## Survey of Resident Personal Finance Status and Preparedness

RYAN MCKILLIP, MS4; MICHAEL ERNST, MD; JAMES AHN, MD, MHPE;  
ERIC SHAPPELL, MD

**STATEMENT:** Resident financial health is an important topic that has been linked to wellness and resiliency; however, financial literacy among residents is highly variable. While medical school curricula include some education regarding budgeting and student loans, content on how to manage an income as a resident is lacking. A formal assessment of the needs and interests of residents in this area has yet to be described.

**OBJECTIVE:** In an effort to define appropriate content for a personal finance curriculum for residents, we sought to understand residents' concerns and level of knowledge relating to personal finance topics.

**DESCRIPTION:** Surveys were sent to residents in eight different specialties at an academic medical center inquiring about personal finances, insurance, and retirement planning. Likert-type responses (1=Very Uncomfortable to 7=Very Comfortable) allowed respondents to rate their level of comfort regarding and interest in learning (1=Very Uninterested to 7=Very Interested) personal finance topics including budgeting, loan repayment, disability insurance, life insurance, home buying, and retirement planning. Results are reported as median (interquartile range).

**RESULTS:** Of 346 residents surveyed, 144 (41.6%) responded. Respondents were from Internal Medicine (56, 38.9%), Pediatrics (34, 23.6%), Emergency Medicine (18, 12.5%), and other specialties (36, 25.0%). A majority were PGY-1 (35, 24.3%) or PGY-2 (51, 35.4%), estimated household income between \$37,651 to \$91,150 (81, 56.3%), and reported no previous education in personal finance (99, 68.8%). Ninety-one (63.2%) reported educational loans, with an average balance of \$191,730. Credit card balances exceeding \$3,000 were reported by 11 (7.6%) respondents. One-hundred-two (70.1%) reported emergency savings, but only 65 (45.1%) reported having a retirement account, and average retirement savings was \$27,608. Few residents (25, 17.4%) reported having a financial advisor. Overall, respondents were uncomfortable with personal finance topics (3[2-5]). Respondents rated highest comfort levels with budgeting (5[4-6]), and lowest levels with disability insurance (2[2-4]) and home buying (2[2-5]). Interest in learning each topic was high (6[5-7]), with retirement planning (6[5-7]), investing (6[5-7]), and home buying (6[5-7]) the topics of highest interest.

**CONCLUSION:** Our results highlight the overall deficits in personal finance literacy among residents in GME programs. Future work should focus on development of a nationally scalable personal finance curriculum for physicians in training.

## High Value Care: Imaging Wisely, an Introduction to the ACR Appropriateness Criteria and Analysis of Its Effect on Internal Medicine Residents

MIKE CHENG, MD; ANDREA MAGEE, MD; CARINA YANG, MD;  
JOYCE TANG, MD, MPH

**STATEMENT:** Inappropriate diagnostic radiological imaging is a significant contributor to wasteful healthcare expenditures. Aware of this, the American College of Radiology (ACR) developed the Appropriateness Criteria to guide physicians' decision-making regarding high-value imaging. Unfortunately, internists, who are often in a position to serve as stewards of responsible ordering practices, are mostly unfamiliar with the Appropriateness Criteria.

**OBJECTIVE:** To design a curriculum introducing Internal Medicine residents to high-value image ordering and the ACR Appropriateness Criteria, and to assess its impact on provider attitude and ordering patterns in regards to high-value imaging.

**DESCRIPTION:** We developed an interactive lecture series for the University of Chicago Internal Medicine PGY-1 Residents in the 2017-2018 academic year. The two-lecture series includes: (1) an introduction to the ACR Appropriateness Criteria and its website and iPhone/iPad app; (2) an assignment to practice application of the ACR Appropriateness Criteria to case vignettes through the Radiology-TEACHES online educational portal; (3) a group discussion about the case vignettes as well as a radiologist-led didactic session discussing guiding principles for high-value image ordering. We will use pre- and post-intervention surveys to assess knowledge and attitudes related to high-value radiological imaging and the ACR Appropriateness Criteria. Additionally, we plan to query EPIC data to assess change in provider ordering practices post-intervention.

**RESULTS:** To date, the curriculum has been offered to a third of the 41 Internal Medicine PGY-1s; eight completed the intervention. Before the intervention, 25% had never heard of the ACR Appropriateness Criteria and 63% never used it to guide clinical decision-making. Open-book testing with six low back pain vignettes yielded a mean score of 66.7%, with the majority of residents using UpToDate, Google, or nothing as their resource. After the intervention, nearly all the residents used the ACR Appropriateness Criteria to answer the same questions, yielding a mean score of 91.7%

On survey questions using a Likert scale from 1=strongly disagree to 5=strongly agree, there was a noticeable shift in provider attitude regarding high-value radiological imaging. After the intervention, participants had a trend towards stronger agreement that minimizing cost of image ordering and radiation risk is their professional obligation (mean score shifted from 4.0 to 4.25 and 4.38 to 4.63, respectively), and that inappropriate image ordering is a problem within the field of Internal Medicine (mean=4.0 shifted to 4.25) and at UCMC (mean=3.25 shifted to 3.63). Residents felt vastly more comfortable with their knowledge of cost of imaging and with discussing cost with patients (mean score shifted from 2.13 to 3.63 and 2.13 to 3.25, respectively).

One hundred percent of the residents said the curriculum was helpful and should be offered yearly. Residents showed a trend towards increased value placed on the ACR Appropriateness Criteria (mean score=3.5 shifted to 4.5) and agreed that they plan to change their ordering practices as a result of the lecture series (mean=4.25).

**CONCLUSION:** A novel curriculum on appropriate radiological test ordering was well-received by Internal Medicine residents. Preliminary data with a small cohort suggests a promising positive shift in knowledge and attitudes towards high-value imaging ordering and the ACR Appropriateness Criteria.

# Peripheral Intravenous Catheter Placement and Venipuncture During Pediatric Residency Training: Barriers to Obtaining Competency in Basic Vascular Access Skills

JAIMEE HOLBROOK, MD; NADIA KHAN, MD

**STATEMENT:** Placement of peripheral intravenous catheters (PIVs) and venipuncture are required competencies set by the Accreditation Council for Graduate Medical Education (ACGME). However, there is concern that a significant number of graduating pediatric residents lack confidence and competency in these procedures. In a survey of pediatric residency program directors, less than two-thirds reported "all or almost all" of their graduating residents were competent to perform PIV placement and venipuncture. In the 2015 American Academy of Pediatrics (AAP) Annual Survey of Graduating Residents, only 53% and 71% were comfortable performing PIVs and venipuncture unsupervised, while 59% and 42% reported a desire for more training.

The procedural sedation elective provides residents the opportunity to work with highly trained nurses. Review of course evaluations exposes dissatisfaction with the vascular access aspect of the rotation, with many residents requesting a structured curriculum and more opportunities for vascular access procedures. This underscores the need for major changes to our approach in teaching basic vascular access skills.

**OBJECTIVE:** (1) Describe barriers to vascular access training in residency. (2) Develop and implement a structured nurse-driven resident curriculum for PIV placement and venipuncture. (3) Improve resident competence and confidence in PIV placement and venipuncture.

**DESCRIPTION:** Recent literature suggests the need for a more structured approach to teaching PIVs and venipuncture. Using Kern's model for curriculum development, we aim to develop and implement a structured, nurse-driven resident curriculum for vascular access. In a comprehensive needs assessment, we conducted two surveys. In fall 2017, pediatric residents completed a survey assessing their experience with PIVs/venipuncture, desire for additional training, desired method of training, and perceived barriers to vascular access training during residency. A separate survey, distributed to the Sedation/Vascular Access nurses, assessed the nurses' perceptions of resident competency in PIVs/venipuncture, attitudes on teaching residents, and perceived barriers.

**RESULTS:** Twelve percent requested clarification and 67% of resident and nursing surveys have been completed to date. Competency in PIVs and venipuncture is important to 89% of residents. Residents report having had  $\leq 5$  opportunities for each procedure, and comfort in performance is reported in only 22% and 56%, respectively. All residents surveyed desire more training. Reported barriers were lack of opportunities (100%), lack of confidence (78%), and lack of a structured curriculum (67%). Preferred methods of learning were instruction by a nurse (89%) or doctor (78%), and simulation (56%).

Sixty-three percent of nurses rated resident competency in PIVs/venipuncture as important. Only 9% agreed that most residents are competent in these skills. Seventy-five percent agreed that nurses should educate residents. Nurse-perceived barriers were: residents not communicating desire (100%), concern for parental opposition (83%), resident unavailable (83%) and resident unprepared (83%).

**CONCLUSION:** Residents need more opportunities to hone PIV and venipuncture skills. Results of these surveys will facilitate the development of a nurse-driven resident curriculum for basic vascular access.



**STATEMENT:** Interprofessional care leads to improved patient outcomes and increased physician satisfaction. Training in interprofessional teamwork has been emphasized as part of the next Accreditation System and the Clinical Learning Environment Review. To foster skills necessary for interprofessional collaboration, many institutions have piloted curricula to teach residents about interprofessional teamwork. Many of these curricula consist of seminars or case-based group sessions. However, these curricula do not include a clinical component in which trainee physicians learn directly from allied health professionals in a clinic setting. By learning about interprofessional collaboration outside of the clinic, residents may not fully understand the roles of allied health professionals and how to effectively work with them to deliver high quality patient-centered care.

**OBJECTIVE:** Our pilot curriculum aims to prepare future physicians to work effectively on interprofessional teams through direct experiences with allied health professionals in the clinical environment. This model has not yet been described in graduate medical education literature. The objectives of the curriculum are for resident physicians to understand the roles and responsibilities of allied health professionals and develop skills to effectively collaborate with them to deliver high quality patient-centered care.

**DESCRIPTION:** As part of the residency ambulatory rotations, University of Chicago Internal Medicine interns participated in two clinical experiences with nursing staff in their continuity clinic. For each experience, the interns worked one-on-one with a member of the nursing staff, either a registered nurse, licensed practical nurse, or medical assistant. The nursing staff modeled activities within their scope of practice and supervised interns as they performed these activities. Examples of the activities included patient triage, vaccine administration, medication administration, and telephone triage.

**RESULTS:** A pre/post design was utilized to evaluate the curriculum. Interns completed a baseline survey and post-clinical experience surveys. The surveys assessed knowledge, skills, and attitudes with respect to interprofessional collaboration, along with satisfaction with the experience. Both surveys consisted of Likert scale questions (1-strongly disagree to 5-strongly agree) and open-ended questions.

The clinical experiences led 92% of interns to better understand the roles and responsibilities of the nursing staff (mean 4.24, SD 0.68) and 71% to collaborate more effectively on interprofessional teams (mean 3.97, SD 0.88). Interns stated they gained a better understanding of the people and processes for communication and collaboration for patient care delivery. They also developed a greater appreciation for the other members of the interprofessional team.

**CONCLUSION:** The curriculum proved that it was feasible to bring residents into the clinic to teach them about the roles and responsibilities of the nursing staff. While the clinical experiences also fostered collaborative skills, the results suggest there is potential to emphasize collaborative skills further.

Through implementing the curriculum, we learned that the clinical experiences taught interns not only about the roles of the allied health professionals but also about everyone's contributions to patient care and the time and effort devoted by nursing staff to various responsibilities. The clinical experiences are therefore important in teaching interns to understand and appreciate the organization within health systems as a whole.

## Assessing the Care of Survivors of Sexual Assault and Human Trafficking in the University of Chicago Emergency Department

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AYUSHI CHANDRAMANI, MS4; KEME CARTER MD; SONIA OYOLA, MD

**STATEMENT:** Emergency department (ED) providers serve as the primary point-of-contact for many survivors of sexual assault and human trafficking (HT), but are often untrained on the treatment of these patients or on trauma-informed care.

**OBJECTIVE:** The objective of our study is to understand the University of Chicago (UChicago) ED staff's (1) attitudes and beliefs regarding sexual assault and human trafficking and (2) knowledge base of both proper trauma-informed care and of hospital and state policies that govern the treatment of survivors. Results from this needs assessment will be used to develop a training program for UChicago ED residents.

**DESCRIPTION:** In this study we distributed surveys to ED physicians at the University of Chicago to assess their beliefs pertaining to sexual assault and human trafficking, and their knowledge base regarding forensic exams and legal policies.

**RESULTS:** ED providers (nurses, residents, and attendings) reported a lack of awareness of the laws and policies guiding the treatment of sexual assault survivors, as well as a lack of comfort with conducting the sexual assault forensic exam. They also perceived time as a major barrier to the thorough, sensitive treatment of survivors (especially male providers). Additionally, while 80% of providers believed that they should receive specific training to care for survivors, only 27% felt adequately trained in trauma informed care. Providers also demonstrated widespread discomfort with identifying and treating HT victims, and 88% felt they would benefit from a lecture on the subject.

**CONCLUSION:** This study demonstrates a clear need for further training on the care of sexual assault and human trafficking survivors for ED healthcare providers at UChicago. As a result, we plan to implement a training program for ED residents, led by the IL sexual assault nurse examiner coordinator, at an ED resident conference this year and in future ED resident orientations.

# Creation of Operative Reports by Surgical Trainees: A Needs Assessment Incorporating a National Survey of General Surgery Program Directors

BENJAMIN FERGUSON, MD, PHD

**STATEMENT:** Dictation of operative reports by surgical residents was once commonplace. However, this practice seems to have decreased in frequency for current trainees. This trend has not been described at a national level, and inciting factors have not been identified.

At the University of Chicago, general surgery residents currently do not dictate or write operative reports.

General needs assessment: (1) Creation of operative reports is a critical skill for every surgeon to master in order to document and bill for services effectively. (2) No data identify the extent to which current general surgery residents participate in the creation of operative reports. (3) Operative reports are notoriously deficient, incorrect, and/or delayed. (4) Formal instruction in operative reporting is uncommon.

**OBJECTIVE:** (1) Describe national trends in the creation of operative reports by general surgery residents. (2) Identify national/institutional factors contributing to a decline in report creation by residents. (3) Develop a curriculum to instruct residents in operative reporting (future direction).

**DESCRIPTION:** A thorough literature review was performed to identify the problem. Subsequently, an 18-item survey was distributed to program directors (PDs) of general surgery programs in the United States ( $n=239$ ) using Google Forms. This study included anonymized subjects and was deemed exempt from approval by the University of Chicago IRB. The survey included items regarding the practice of resident creation of operative reports through dictation and/or written documentation, reasons for cessation of resident participation, logistics surrounding report creation, and motivations for and attitudes toward this practice.

**RESULTS:** The response rate was 31.8% (76/239). 90.8% of programs involve residents in operative reporting. 71.4% of the programs that do not currently involve residents previously did involve residents in the creation of operative reports within the past 10 years. Medicolegal barriers (80%) and decreased resident operative autonomy (40%) were most the common reasons for cessation of resident involvement. Verbal dictation (78.5%) is the most common approach for operative reporting by residents, followed by electronic notes (21.4%). 100% of programs involving resident participation allow deposition of the resident operative report into the medical record; 91.3% of programs require subsequent cosigning and/or amendment by the surgical attending. Nearly two-thirds of programs report that residents view operative report creation favorably. Only 33.3% of programs provide instruction on operative reporting.

**CONCLUSION:** Most general surgery residency programs currently allow residents to create operative reports with appropriate supervision. Few of these programs incorporate formal instruction in the creation of operative reports. Attrition of resident participation in operative reports seems limited to individual institutions rather than suggestive of a national trend. Future directions include the development of a formal operative report dictation curriculum and assessment of early-career attending surgeons regarding operative reporting practices.

**STATEMENT:** Residency training requires long hours in the hospital, an inconsistent sleep cycle, and exposure to communicable illnesses. It is therefore not surprising that residents often report high rates of fatigue, stress, unhealthy eating, and illness. Residents also report widespread maladaptive behaviors, including alcohol abuse and medication misuse, which can further harm resident health. However, even when their health is compromised, many residents feel pressured to work when sick or otherwise unable to perform their duties. This can impact patient safety. This paper describes a program designed to improve one residency's "culture of safety" by providing residents the ability to self-assess their own fitness for duty and the resources to address problems in this area.

**OBJECTIVE:** This intervention aimed to perform three important tasks: (1) Help Internal Medicine (IM) and Medicine-Pediatrics (MP) residents identify common issues that harm resident health and jeopardize patient safety. (2) Teach residents how to perform a self-assessment of their own fitness for duty. (3) Inform residents of available resources to support their fitness for duty.

To achieve these goals, we focused on six common barriers which impact resident fitness for duty and patient safety: illness, misuse of medications and alcohol, stress, fatigue and unhealthy eating (IMSAFE – Illness, Medication, Stress, Alcohol, Fatigue and Eating.)

**DESCRIPTION:** This intervention utilized an interactive session and supporting written materials to promote resident fitness for duty. During the session, realistic cases were presented to highlight barriers to fitness for duty. Following each case was group discussion of the issues identified and a presentation of specific resources available to help residents overcome that barrier. At the end of the session, a brochure with a summary of high-yield resources for residents was provided.

**RESULTS:** An intervention survey was distributed to residents, assessing understanding of fitness for duty, and changes in resident awareness of, and likeliness to utilize, resources to overcome barriers. The interactive session and post-intervention survey were completed by thirty-four (34) IM and MP residents (attendance and response rate of 27.4%). Of survey respondents, 85.3% (29/34) found the IMSAFE mnemonic helpful to remind themselves about fitness for duty. After the session, ninety-seven (33/34) percent were satisfied with the training they had received in fitness for duty, compared with sixty-one (21/34) percent who were satisfied with their training in fitness for duty before the session. Ninety-seven percent (33/34) reported they were likely or very likely to use the safe ride fund when too fatigued to drive home. Eighty-two percent (28/34) reported they were unlikely or very unlikely to obtain prescriptions from a colleague informally.

**CONCLUSION:** Resident fitness for duty directly impacts ability to fulfill the residency demands and provide high quality patient care. This targeted intervention aimed to improve attitudes and knowledge in this area by introducing residents to the concept of fitness for duty, raising awareness of common barriers, and providing resources to overcome these barriers. Awareness and utilization of resources could improve both resident health and patient care.

## A Self-Paced Mastery Procedural Curriculum for Emergency Medicine Interns

KENNETH YOUNG, MD; ERIC SHAPPELL, MD; JARED NOVACK, MD;  
PAUL KUKULSKI, MD; JAMES AHN, MD, MHPE

**STATEMENT:** Emergency Medicine (EM) students and residents are tasked with mastering multiple critical procedures in a relatively short amount of time. Prior to the advent of simulation-based learning, learners progressed under the “see one, do one, teach one” mantra and had little means of practicing effectively while maintaining patient safety. In the current environment, while learners have access to procedural trainers and practice sessions, their time is limited and set at a standard pace. This applies a time constraint that will hold back the progress of some learners and advance too quickly for others, and does not optimize learner time or facility resources. Under the tenants of mastery learning, students are required to reach a specific proficiency prior to advancing; however, that pace is currently set not by the learner but by the institution.

**OBJECTIVE:** Our project hopes to provide a self-paced mastery curriculum for Emergency Medicine residents for core EM procedures including Lumbar Puncture, Central Line Placement, Chest Tube Placement, Paracentesis, Endotracheal Intubation, Cricothyrotomy, and Arterial Line Placement. The primary beneficiaries will be the EM residents, especially the PGY-1s for whom this intervention is targeted. By having access to the procedural trainers and online resources on their own time, residents will have ample time and resources to advance at their own pace to achieve mastery and gain lifelong comfort with procedures.

**DESCRIPTION:** This curriculum will augment the current procedural curriculum for PGY-1 residents. In a group setting, residents will observe each procedure performed by an expert instructor, then have a hands-on facilitated session with the necessary simulation equipment. Students will be provided the residency-approved mastery checklists during this session and perform them with supervision to ensure perfect practice going forward.

Residents will then be granted access to the simulation equipment on their own time, have access to on-line video resources, and be encouraged to practice until they feel that they have achieved mastery. At that point residents will self-record their mastery attempts and submit them for review by trained reviewers. Students will be expected to perform basic camera setup and recording by following a tip sheet.

**RESULTS:** After a 14-resident pilot attempt, all residents were able to successfully set up and videotape a Lumbar Puncture procedure attempt. Over the next month instructors will be trained to rate the videos and will evaluate the initial set. The program will then be implemented across all interns as part of their procedural training. Residents will be assessed at the end of their second year of training and compared to the previous year’s residents as a control. In addition, residents will be surveyed on their perceived mastery, comfort with procedures, and attitudes regarding the new curriculum.

**CONCLUSION:** While the project has not been fully implemented, we hope this is a first step towards a learner-tailored system of procedural education.

## Perceptions of and Participation in Unprofessional Behaviors in Outpatient Clinic Throughout Residency

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VINEET ARORA, MD, MAPP

**STATEMENT:** Unprofessional behaviors can negatively affect learning in the outpatient environment and ultimately undermine quality of patient care. While surveys and workshops have previously been used to address professionalism and practice behaviors in the inpatient environment, little has been done to assess similar behaviors in the outpatient setting.

**OBJECTIVE:** To assess residents' perceptions of unprofessional behaviors and to quantify observed and self-reported participation in such behaviors in an outpatient clinic over time.

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

**DESCRIPTION:** All categorical Internal Medicine interns at University of Chicago during the 2012-2013 year were invited to complete a survey during their orientation to resident continuity clinic. The survey was administered by a medical education fellow who was not involved in program leadership or evaluation.

The survey consisted of six sections. The first four sections listed observable behaviors related to interactions with patients, interactions with staff, interactions with peers/faculty, and personal conduct. Each intern was asked to indicate if he or she had observed someone engaging in each behavior and if he or she had participated in each behavior. The intern was then asked to rate how professional or unprofessional each behavior is using a Likert type scale. The final two sections of the survey consisted of questions related to perceived burnout, overall morale, and career choices.

**RESULTS:** Data analysis is still ongoing to determine trends in participation in unprofessional behaviors and statistical significance. Data analysis so far has shown that 29 of the 32 Internal Medicine interns in the 2012-2013 class completed the first survey (response rate of 90.6%), and 22 of the original 29 interns completed the follow up survey (response rate of 75.9%) three years later. Nearly all behaviors were perceived as unprofessional (rated as "unprofessional" or "somewhat unprofessional" on the Likert scale). Self-reported participation in some unprofessional behaviors increased throughout residency. For example, of the 22 residents who completed both pre- and post-residency surveys, 4 residents (18%) reported ignoring test results because of inpatient duties at the beginning of internship, versus 19 residents (86%) at the end of residency. 7 residents (32%) reported not providing timely follow up on test results at the beginning of internship, versus 15 (68%) at the end of residency. More residents also reported becoming angry when a patient was late for an appointment at the end of residency (27% versus 86%).

**CONCLUSION:** Discrepancies exist between formally taught professional behaviors and what is actually done in outpatient clinic. Such discrepancies leave room for future interventions to improve professional behaviors in outpatient clinic.



## Resident Perspective on Communication During Conscious Procedure

ROBERT NOLAN, MS2; CLAIRE SMITH, MFA, MS4; NANCY SCHINDLER, MD, MHPE

**STATEMENT:** As modern medicine tends away from the use of general anesthesia and toward minimal and moderate sedation, the essential processes of physician communication with both the patient and the medical team now demand reevaluation of technique and strategy. Current literature assessing communication during conscious procedure highlights its importance in patient satisfaction and safety, but lacks the integration of the resident physician perspective as well as fails to clearly define best practice. This research looked to extend earlier work that assessed the attending perspective on communication during conscious surgery with the addition of the resident perspective.

**OBJECTIVE:** The first objective was to identify communication successes and failures identified by residents, and compare these qualitative themes to those produced by the data gathered from attending physicians. The themes gathered in both studies are currently being integrated into a patient survey that will now assess the patient perspective. This will allow the results of this research to be validated by a patient population large enough to be statistically representative of the population undergoing these conscious procedures. After best practice is effectively defined via this process of data triangulation, the end goal is the development of a curriculum for physicians on communication in the setting of conscious procedure.

**DESCRIPTION:** This study took place within the University of Chicago Medicine hospital system. The population studied included resident physicians with at least ten or more exposures to conscious surgery.

Residents were interviewed utilizing a focus group structure. Each focus group had a minimum of two residents and a maximum of seven residents. The initial protocol allowed for a maximum of five resident focus groups, with the true end goal being saturation. Residents that participated in the focus groups were from the following specialties: General Surgery (11), Urology (7), and OB/GYN (7).

This information gained from focus groups was then transcribed in a de-identified fashion. Using the constant comparative method, themes were collapsed and expanded in an iterative process until all three authors confirmed the themes accurately represented the transcribed data.

All methods outlined above were approved through the University of Chicago Aura IRB (IRB17-0403).

**RESULTS:** Of the 59 residents that indicated initial interest, 25 participated in five focus groups, after which saturation was reached. Qualitative themes that arose from the focus groups included challenges and benefits to conscious procedure, patient-communication successes and failures, and positive and negative education techniques. Subthemes were developed within these categories, with the most frequently cited positive techniques including preoperative communication as well as the patient-oriented strategy. The most commonly identified positive techniques of intra-procedural communication included distraction, patient education, and preparing the patient for noticeable changes.

**CONCLUSION:** All five focus groups confirmed that no current resident curriculum covers communication in the setting of conscious procedure in the fields of OB-GYN, general surgery, or urology. This was contrasted with four of the five focus groups indicating unanimous interest in such a curriculum. A very strong correlation was identified between the resident and attending perspectives on positive communication techniques, with 67% of the subthemes identified within the resident focus group data correlating directly to themes identified with attending physician data. The residents' unique perspective as the learner in this unique operating theatre yielded many new themes and subthemes for this subset of education successes and failures.

## Using Quality Improvement as Resident Education to Improve Healthcare Transition

JESSICA GOLD, MD, PHD; SOFIJA VOLERTAS, MD; RITA ROSSI-FOULKES, MD, MS

**STATEMENT:** There is a growing need for Healthcare Transition (HCT), the process of preparing adolescents for an adult model of healthcare. Despite new recognition of the importance of HCT, adolescents, especially those with special healthcare needs, continue to report inadequate preparation and support for transition. This leads to increased adverse events, including insurance lapses, medication non-compliance and disease exacerbations. To further enhance training in HCT, our Medicine-Pediatrics residency developed a quality improvement (QI) project based on Got Transition's Six Core Elements of Transition.

**OBJECTIVE:** Using this framework, we aimed to promote HCT within our Med-Peds clinic. We also aimed to improve our residents knowledge and attitude toward HCT. Lastly, this project provided an opportunity to complete QI, a residency requirement.

**DESCRIPTION:** Our HCT QI project began as a longitudinal study in June 2016 and uses Got Transition's Core Elements as a framework. Each month, the ambulatory Med-Peds resident dedicates ten hours. Their work builds upon the previous ambulatory resident's work as we progress through the Core Elements. To date, contributions include writing a transition policy, creating and maintaining a transition registry, and scheduling specific transition visits for our adolescent patients. Additionally, residents are completing transition readiness checklists and portable healthcare summaries for their adolescent panel. Chart audits of the entire practice are completed semi-annually to document the clinic's progress on addressing HCT.

**RESULTS:** Through this HCT QI project, our residents demonstrate increased knowledge and practice of HCT. They also report greater interest in addressing HCT with their adolescent patients.

**CONCLUSION:** This project provides a model for other clinics to examine their HCT practices and work on improvement. Currently, several residents are adapting this project for subspecialty clinics within the institution.

# What Happens to My Event Report? A Quality Improvement Education Initiative

DAPHNE VANDER ROEST, MD; JUSTIN TRIEMSTRA, MD, HELEN DEVOS CHILDREN'S HOSPITAL;  
ALLISON BARTLETT, MD; LISA MCQUEEN, MD

**STATEMENT:** The Accreditation Council of Graduate Medical Education (ACGME) requires residents to actively participate in quality improvement (QI) activities, including demonstrating a foundational understanding of QI concepts and applying these concepts to improving patient care. Many introductory curricula provide didactic instruction in QI principles, but the ACGME explicitly states that “Experiential learning is essential to developing the ability to identify and institute sustainable systems based changes to improve patient care.” We sought to develop an experiential learning strategy that would both provide instruction in QI principles and improve actual patient care: QI Morning Report.

**OBJECTIVE:** By the end of each QI Morning Report, participants will be able to: (1) Describe what happens to patient safety event reports after electronic submission. (2) Analyze patient care events using QI tools such as PDSA cycles and fish bone diagrams. (3) Recognize interdisciplinary expertise that is brought from interprofessional team member participation. (4) Identify concrete and actionable next steps to apply to patient care quality improvement activities.

**DESCRIPTION:** Pediatric Morning Report is an interactive, case-based, daily conference in which diagnostic and management decisions are applied to the care of a patient in order to sharpen clinical reasoning skills. “QI Morning Report” is similarly case-based, but originates with a patient safety event report and applies systems-based quality improvement tools in order to both teach process improvement skills and identify concrete and actionable changes to implement to improve patient care.

Each QI morning report begins with a patient case discussion, gathering the history and eliciting physical examination findings. However, rather than focusing on diagnostic and management reasoning, the facilitator introduces a patient safety event report that occurred in the process of care, and the discussion focuses on process improvement using QI tools such as PDSA cycles, fishbone diagrams, and process mapping. Participants include resident and attending physicians, pharmacists, and members of the EPIC development team. By the end of the conference, participants have not only been able to apply QI tools to the patient case, they also have provided insights from their own roles on the care team to identify concrete and actionable next steps to improve patient care processes.

**RESULTS:** Since the initiation of our program, three QI Morning Report conferences have been conducted. Conference evaluation scores were high (averaging 4.5/5), and residents in particular report a deeper understanding of quality improvement science as well as an appreciation that their expertise was solicited in identifying systems based changes. In particular, key actionable items include (1) modifying EPIC processes for order writing (2) standardizing communication processes between nursing and physician members and between phases of care within the hospital and (3) standardization of clinical guidelines. As a result, operational teams have been formed with resident participation in order to make actual process improvements.

**CONCLUSION:** QI Morning Report is an innovative strategy that combines instructional methods in quality improvement science with inter-disciplinary team collaboration and can yield visible changes in process improvement.

## Describing Variability of Inpatient Consulting Practices

MARIKA KACHMAN, MS2; KEME CARTER, MD; VINEET ARORA, MD, MAPP;  
ANDREA FLORES, MA; SHANNON MARTIN, MD, MS

**STATEMENT:** Consultation is a very common medical practice and appropriate use of consultation has been shown to improve mortality and decrease the cost of care. However, inappropriate consultation may carry risks, such as increased length of stay and more opportunities for communication breakdowns. Little is known about the epidemiology of inpatient consultation.

**OBJECTIVE:** No study to date has looked at whether there is variability of consultation during inpatient hospitalization between attendings within the same hospital. We hope to address this gap and determine whether there are physician-, team-, patient-, or admission-level factors that influence this variability.

**DESCRIPTION:** We conducted a secondary analysis of data from patients and attendings in the University of Chicago Medicine Hospitalist Project. Admissions with a length of stay (LOS)  $\leq$  5 days were included. This was done to minimize the likelihood of attending hand-offs and ensure that consultations were attributed to the appropriate attending. Six thousand twenty three admissions were included in the analysis. The primary outcome, number of consultations per admission, was determined by counting the unique number of services that wrote notes on the patient and then subtracting one for the documentation of the primary team. Physician characteristics (years in practice, gender, specialty) were determined from publicly available resources. Admission characteristics (LOS and secular factors) were determined from an administrative database. Bivariate linear regressions were performed to explore what factors should be included in the model. We then used multivariable regression models that accounted for within-group variation by clustering on attending to determine factors associated with consultation.

**RESULTS:** Sixty seven attendings were included in the study, of whom 46% were female and the average years of practice was 15 years ( $SD = 9$  years). From 2011-2016, 14,848 patients were enrolled in the Hospitalist project and 4,670 (31.5%) were included in the analysis. Fifty seven percent of included patients were female and the mean age was 62 years ( $SD = 19$  years). We found considerable variability of consultation use with a 3.5-fold difference between the lowest and highest quartiles ( $p < 0.001$ ). In multivariable regression, uninsured and Medicaid patients were associated with 0.2 less consults per admission compared to patients with Medicare peers ( $p < 0.001$ ). The number of consultations per admission was shown to decrease for every year of the sample, with admissions in 2016 receiving 0.7 less consults than those in 2011 ( $p < 0.001$ ). Attendings who reported that they were likely to leave academic practice in the next 2 years were associated with 0.3 more consults. Trainees also affect this variability, with patients cared for by a hospitalist working with trainees receiving 0.1 less consults than those cared for by a hospitalist not on teaching service.

**CONCLUSION:** Considerable variability exists in the use of inpatient consultation and is associated with various attending-, team-, patient-, and admission-level factors. In the future, our work may be used to identify patient and attending groups at high-risk for underuse or overuse of consultation and for subsequent development of intervention programs to improve high-value care.

## Balancing Service and Education: Emergency Medicine Resident Effect on Attending Physician Workload Study

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**STATEMENT:** How do the educational responsibilities of resident supervision and training affect community academic emergency physicians' clinical care workload?

**OBJECTIVE:** To analyze how working with Emergency Medicine (EM) residents affects EM attendings' time allocation on 10 categorized tasks, including direct patient care and teaching activities.

**DESCRIPTION:** Observational time-motion study of emergency physicians working in teaching and non-teaching settings over 400 hours, covering 34,358 task executions from March-August 2017.

Main Outcomes and Measures: Comparison of time spent by emergency medicine physicians on 10 predefined tasks between the community academic teaching site versus the community non-teaching site.

**RESULTS:** During each 240 minute observation period at the teaching site, resident participation in clinical care resulted in a 13.1% (95% CI, 9.6% to 16.9%) [31.4min] reduction in time an attending spent on medical tasks. Direct patient care occupied 32.0% (95% CI, 29.3% to 34.6%) [76.7min] working with residents and 33.3% (95% CI, 30.7% to 35.9%) [79.9min] when working without residents. Clinical teaching accounted for 14.3% (95% CI, 12.4% to 16.1%) [34.2min] per observation. Attendings spent longer periods of uninterrupted time blocks with patients when working with residents: 3.62min (95% CI, 3.41min to 3.83min) compared with 3.14 min (95% CI, 2.96min to 3.33min).

**CONCLUSION:** An appropriate balance between service and education can be achieved without compromising direct patient care in a community emergency department setting. Resident supervision and education did not significantly affect the amount of time the attendings spent with a patient. Emergency medicine attendings' direct patient care is less fragmented when working with residents. In this training model, direct patient care was not compromised by teaching.

## Good Teaching Skills Should Be Seen, Not Just Heard About! A Four-Day Workshop Series to Create Effective Faculty Teachers in Primary Care

JANICE BENSON, MD; POOJA SAIGAL, MD

**STATEMENT:** As physician shortages loom by 2025, there is an ever-increasing need for skilled family medicine (FM) teachers, despite an increasing scarcity of faculty. Correspondingly, 80% of medical schools are concerned about both an adequate number of and quality of primary care preceptors, including FM.

However, good teaching is not conceptually-based alone. Effective teachers must “perform” well in formats that vary from brief lectures with talking points, to one-to-one supervision, to small group learning. The call to increasing Competency-Based Education specifically requires that the teachers must be trained to give effective feedback in an ongoing way that they have not done before.

**OBJECTIVE:** The purpose of this yearlong faculty development traineeship is to train family medicine/primary care physicians to enhance their clinical education skills, specifically: (1) To improve their teaching skills in 3 formats: brief lectures, small group discussions, clinical precepting including giving effective feedback; (2) To design a single session lesson plan with goals, objectives, methods, and evaluation, that incorporates a brief lecture and small group discussion; (3) To implement this interactive session, evaluate and analyze its effectiveness.

**DESCRIPTION:** In 2016-17, the Department of Family Medicine of NorthShore University of Chicago adapted four day-long workshops from a previous yearlong 5-week faculty development fellowship that incorporates active learning. The core elements focus on the faculty-learners’ own work in each session by presentation, feedback, and tape review, coupled with a capstone project of designing, implementing and evaluating a single session curriculum design that is taught to resident learners, taped, and reviewed. The series is based on teaching skills and curricular design elements adapted and abbreviated from key resources in medical education design.

The learners in the year one pilot 2016-17 were a primary care sports medicine fellow, a medical group physician during an integrative medicine fellowship, and a senior resident in a faculty development residency-track.

**RESULTS:** 2016-17 Process: On the average, each of the three trainees improved in their self-assessed skills before and after their workshop training on a five-point scale, specifically: lecture skills improved (2.6 pre to 4.0 post), small group learning improved (2.0 pre to 3.5 post), and feedback skills improved (3.2 pre to 4.2 post).

2016-17 Outcomes: Each of the three trainees designed, implemented, evaluated, and reviewed their capstone project of single learner session and each session was rated very well by resident and faculty learners. Excerpts of their teaching “products” will be shown.

2017 Outcomes: A delayed outcome evaluation by the trainees is pending and will be included. The results of the learner evaluation of the second years first workshop of 2017-18 will be available also.

**CONCLUSION:** Motivated but busy clinical fellows and physicians can effectively learn new education skills in a four-day workshop format. The impact on the teaching roles of these primary care physician trainees will be explored on follow-up evaluations.

## Paving the Advancement of Black Males in Academic Medicine

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NAJIB JAI, MS2; JOSEPH KERN, MS2; MONICA VELA, MD

**STATEMENT:** Black males comprise only 2% of full-time medical school faculty, and are the only minority demographic from which there is, compared to 1978, a current decrease in medical school matriculants. Few organizations and initiatives with the mission of empowering Black trainee success in academic medicine currently exist, and opportunities for faculty role models to impart advice on issues specific to being Black men in medical education, while crucial, are rare.

**OBJECTIVE:** To bring together often-isolated Black male trainees and faculty into open discussion and mentorship through the inauguration of a Black Men in Medicine Forum. Through a multi-institutional effort, we sought to identify successful Black male academic physicians within Chicago's medical institutions, make these faculty members accessible to trainees as mentors, and disseminate multi-generational wisdom that would inspire confidence, build community, reduce the burden of marginalization, and drive further institutional commitment to such initiatives.

**DESCRIPTION:** Black male faculty in leadership positions across Chicago medical schools were identified via institutional websites, and invited to speak at a panel-style forum at the University of Chicago. Medical students and housestaff were surveyed on topics for discussion.

**RESULTS:** Eight faculty members from Chicago medical institutions presided on the panel. Thirty medical students and residents attended. The forum fostered mentor relationships that likely would not have otherwise materialized, and spurred a monthly series of mentorship and leadership luncheons with Black faculty members at the University of Chicago. Publicity of the forum garnered national interest in our institutional diversity climate, evidenced through applicant comments during residency and medical school admission interviews.

**CONCLUSION:** This forum imparted critical strategies for addressing microaggressions and marginalization, supporting pipeline efforts that contribute to institutional diversity, and attaining leadership roles for academic career development. The process of establishing this forum empowered our ability, as first-year minority medical students, to institute change.

## Gender Differences in the Authorship of Original Research in Pediatric Journals (2001-2016)

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DENISE GOODMAN, MD, MS, NORTHWESTERN UNIVERSITY;

**STATEMENT:** The number of female physicians has risen steadily over the past 50 years and now make up 34% of all practicing physicians and 40% of all academic physicians in the United States. However, women continue to be underrepresented in senior faculty and leadership positions within academia. As of 2014, only 24% of division chiefs, 15% of department chairs, and 16% of deans were women. Similar patterns have been seen in the field of Pediatrics, one of only two specialties (along with Obstetrics and Gynecology) in which the majority of physicians are women. Since one crucial aspect for tenure and promotion within academic medicine is grant funding and publication in high impact journals, potential gender disparities in peer-reviewed research publications represents an important area of investigation.

**OBJECTIVE:** To examine the gender of authors of original research in 3 high-impact pediatric journals between 2001 and 2016, and given the importance of publishing on academic promotion, to compare authorship gender with the percentage of women on editorial boards and with academic faculty composition.

**DESCRIPTION:** We assessed the prevalence of female first and senior (last-listed) authorship of original research articles published in three pediatric-focused journals – Pediatrics, JAMA Pediatrics (entitled Archives of Pediatric and Adolescent Medicine until 2013), and The Journal of Pediatrics. We also examined the gender breakdown of their main editors and their broader editorial boards. Finally, we examined whether junior female faculty co-authored with male or female senior faculty.

**RESULTS:** Of 3895 original articles, 22 were excluded because the sex of either the first or senior author was indeterminate. An analysis of female authorship by year showed increasing female representation across the selected journals in both first (39.8% in 2001, 57.7% in 2016) and senior (28.6% in 2001, 38.1% in 2016) authors respectively. Editorial boards also showed increasing female representation (17.8% in 2001 to 39.8% in 2016). Junior female faculty are more likely to co-author with senior female women (female first and last author), and the gap remains unchanged despite the increasing number of women entering pediatrics.

**CONCLUSION:** Women are underrepresented as authors and editors although the gap is closing. Junior women are less likely to co-author with senior men, which may be a disservice given current gender disparities in promotion and leadership.



## Conceptualizing and Planning an Inaugural Forum to Improve Institutional Culture for LGBTQ+ Physicians and Medical Students

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JACKIE WANG, MD, STANFORD UNIVERSITY; MONICA VELA, MD

**STATEMENT:** Sexual and gender minorities (SGM) have been referred to as “invisible minorities in medical education.” While SGM were officially recognized as a disparity population for NIH research in 2016, SGM medical students and trainees are often uncounted by their institutions. Additionally, nearly one-third of SGM trainees choose not to “come out” while in training, and such identity concealment has been shown to negatively affect well-being. Previous research has demonstrated that institutional efforts to improve climate significantly reduce bias among physicians, yet previous faculty-led efforts to bring together SGM at our institution have been met with little enthusiasm or success.

**OBJECTIVE:** We set out to improve the culture for LGBTQ+ physicians and students at our institution by planning the inaugural LGBTQ+ People in Medicine Forum. By bringing LGBTQ+-identified medical students, trainees, and faculty clinicians together for a panel discussion and networking reception, we sought to build community amongst peers and colleagues, encourage the development of mentorship relationships, and foster a more inclusive institutional climate.

**DESCRIPTION:** We applied for and secured internal grant funding for the event and conducted outreach to potential panelists and attendees, from whom we solicited questions to guide the panel discussion. We identified discussion themes, including experiences with adversity and being “out” throughout the medical education continuum. Finally, we distributed a post-event evaluation, with quantitative and qualitative measures, to examine attendees’ reactions to the forum’s programming and help guide planning of similar events in the future.

**RESULTS:** Forty six physicians and students attended the forum on May 19, 2017. Two medical students, two residents, and three faculty clinicians participated on the panel. The post-event survey was completed by 19 attendees. Ninety-four percent agreed or strongly agreed that the networking reception before and after the panel helped them to meet new people, and 100% agreed or strongly agreed that overall, the forum positively impacted the community. Attendees wrote that the most meaningful part of the forum was hearing students and faculty share their stories, and that future forums should include increased transgender representation and more time for discussion, as well as the addition of small groups.

**CONCLUSION:** An inclusive institutional climate in academic medical centers is integral not only to ensuring the well-being of LGBTQ+ physicians and trainees but also to providing equitable, high-quality patient care. Here we demonstrate that student-led initiatives may have the potential to build community, promote a more inclusive institutional culture and reduce physician bias.

## Wondering About the Women: Evaluating Barriers to Women Pursuing Interventional Radiology

MONICA MATSUMOTO, MS3; THOMAS TULLIUS, JR, MD; RAKESH NAVULURI, MD

**STATEMENT:** In 2009, only 8% of practicing Interventional Radiologists were women, even though women now represent nearly 50% of medical school graduates. Barriers contributing to this disparity likely include persistent fears about radiation exposure, a lack of female mentors, and insufficient knowledge about the specialty. In light of this discrepancy, the Midwest Interventional Radiology Medical Student Symposium (MIRMSS) hosted a “Women in IR” (WIIR) panel discussion in 2016 and 2017.

**OBJECTIVE:** This survey aims to assess not only the perceived barriers to female medical students pursuing Interventional Radiology (IR) as a career, especially in the setting of the new residency, but also the efficacy of the WIIR panel. We plan to implement survey results at future IR-related events and disseminate our findings nationally.

**DESCRIPTION:** Based on a literature search on women in IR, we identified major barriers and attractions to women entering the field. We developed a 15-question survey via Google Forms, which was sent to medical students who self-identified as female and who registered for the MIRMSS in 2016 and/or 2017.

**RESULTS:** Out of 166 women contacted, 25 responded (15% response rate). Ten (40%) were MS2's, six (24%) MS3's, eight (32%) MS4's, and one (4%) PGY-1. The students listed their top specialties as: IR (60%), Diagnostic Radiology (48%), Pediatrics (28%), Internal Medicine (28%), General Surgery (20%), Obstetrics and Gynecology (20%), and Psychiatry (16%). Very/extremely important aspects of pursuing IR as a career are: therapeutic capability (100%), performing procedures (77%), use of imaging (75%), diagnostic capability (73%), and medical school exposure (60%). Concerning aspects include: demanding call schedule (30%), patient contact time (28%), lifestyle/hours (26%), and opportunity to raise a family (26%). Of the WIIR panel attendees, 60% said it increased their likelihood of pursuing IR. The panel covered these topics very/extremely effectively: opportunity to raise a family (85%), radiation exposure (74%), performing procedures (72%), and male-dominated specialty (63%). Having a female mentor in their specialty is very/extremely important to 86% of respondents, although only 32% say they currently have a female mentor. Recurrent themes about the importance of a female mentor are: a source of advice about career, family, or work-life balance; role models, especially in leadership positions; and social support.

**CONCLUSION:** Female mentorship, specialty-related information, and exposure to the theragnostic capabilities of IR are imperative aspects of recruiting qualified female applicants into the field. A WIIR panel discussion is a promising forum to achieve these goals, and may also benefit from attendance of male students to increase their participation in issues that women may face. We also plan to assess whether attendance is associated with a higher likelihood of pursuing IR as a career. In the same way, IR programs should continue to identify gender-specific barriers and address them early in medical education so that all qualified students may consider IR as a career.

## Women and Minorities: Empowering Trainees to Overcome Gaps in Equity and Leadership

NZUEKOH NCHINDA, MS2; CATHERINE CASTRO, MS2; AMARACHI ERONDU, MS2;  
MARIA ESPINOSA, MS2; OLIVIA JORDAN, MS2; JULIA NAMAN, MSPH, MS2;  
CECILEY SCARBROUGH, MS2; MONICA VELA, MD

**STATEMENT:** Women and minorities continue to be underrepresented in the medical profession despite mounting evidence that addressing certain health disparities may depend in part on increasing the diversity of the workforce. Women and minorities are also underrepresented in leadership positions, in the higher ranks of academic medicine, and in certain specialties.

**OBJECTIVE:** Our goals were to provide a forum addressing the intersectionality of gender and race in the medical profession. The forum should allow women minority medical students to (1) be exposed to successful minority women in leadership positions, (2) learn about the skills and resilience needed to overcome bias and (3) be inspired to pursue leadership opportunities.

**DESCRIPTION:** Academic faculty who are women and minorities were recruited as panelists. These women represented specialties including Internal Medicine, Pediatrics, Emergency Medicine, and Family Medicine, and held leadership positions in hospital administration, clinical care, policy, research, and medical education. The event was advertised internally at the University of Chicago and at local medical schools through social media. Confirmed attendees received a survey soliciting questions that were forwarded to the panelists prior to the forum.

**RESULTS:** Sixty medical students and residents arrived from across Chicago. Themes from the pre-forum survey included addressing implicit bias, handling the perceived obligation to represent all Black/Latina women, and balancing family and job demands. Panelists emphasized the importance of self-care, the joys of practicing medicine, the need to explore part-time and full-time work arrangements, and the value in fostering mentor and advisor relationships. Results from a post-forum survey with a 58% response rate (35/60) demonstrated that one hundred percent of the survey participants would attend a similar event if offered again.

**CONCLUSION:** The post-forum survey results demonstrated that the forum was well-received and emphasized the need to hear about the experiences of minority women physicians.



## Broad Systematic Implementation of Pre-Operative, Non-Opioid Analgesics: Coupling a Novel EMR Tool with Provider Education

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LAURA MARTINEZ, CNE; CYNTHIA THOMPSON, MS, APRN-FNP; DANIEL MASS, MD;  
MEGAN CONTI MICA, MD; DAVID DICKERSON, MD

**STATEMENT:** A pattern of increasing opioid prescription and use in the hospital is concerning in the context of a national epidemic of opioid misuse. Surgical patients receive 40% of all opioid prescriptions, and evidence shows post-surgery prescriptions put those patients at risk for continued opioid use (Levy et al., 2015; Brummett et al., 2017). Multi-modal analgesia (MMA) reduces postsurgical opioid requirements. The University of Chicago Medicine (UCM) medication electronic medical record (EMR) data for outpatient orthopedic surgery revealed <5% of patients receive a non-opioid in the preoperative area prior to surgery despite guidelines recommending such administration. This data reflects an opportunity for standardizing patient exposure to preoperative nonopioid medications.

**OBJECTIVE:** This intervention implemented a pre-operative MMA regimen for orthopedic ambulatory surgery patients at UCM. We created a standardized, automatic order set in the EMR as a cognitive tool for provider education and decision-making, with the intent of increasing provider awareness of this regimen as well as its utilization.

**DESCRIPTION:** The MMA order set included acetaminophen, gabapentin, and diclofenac, and was programmed in EPIC, the EMR used by UCM. Upon full implementation, this order set was included as a component of a standard pre-operative order set for all patients undergoing orthopedic ambulatory surgery. We conducted didactic education sessions about the benefits of MMA and risks of opioid exposure prior to implementation of the MMA component of the preoperative order set and assessed use of these medications and the order set prior to and following implementation.

**RESULTS:** A pre-implementation survey of providers demonstrated strong support for MMA and non-opioid pain management techniques. Despite that support, utilization of these medications pre-operatively was low in the pre-implementation period. Implementation of the cognitive education and patient care tool in the EMR resulted in significant increases in utilization of non-opioid pain medications; the proportion of patients receiving any MMA medication increased from 4.9% to 46.7% on average, and the proportion of patients receiving all three MMA medications increased from 0.5% to 26.1% on average. Control charts suggest the didactic session and the order set implementation combined to create a far more significant impact on utilization than the educational session alone.

**CONCLUSION:** Attitudes toward the utilization of guideline-recommended, pre-operative pain medications are favorable at UCM. The availability of a standardized, automatic order set for multi-modal analgesia greatly increased the utilization of those medications, demonstrating that this type of quality improvement medical education initiative can promote evidence-based patient care with rapid translation into clinical practice.



## Impact of Gestational and Congenital Toxoplasmosis Medical Education: A Pre- and Post- Intervention Study in Panama City, Panama

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KRISTEN WROBLEWSKI, MS; JOSEPH LYKINS, MS4

**STATEMENT:** Toxoplasmosis is a common infection globally, posing significant risk to pregnant mothers and their babies. Primary acquisition and vertical transmission of the causative agent, *Toxoplasma gondii*, can cause severe, debilitating, and potentially fatal congenital disease. Given the critical role early diagnosis and treatment of acutely infected mothers plays in improving fetal health outcomes, it is important medical students and healthcare providers are knowledgeable about toxoplasmosis.

**OBJECTIVE:** This study was carried out in Panama City, Panama where a significant incidence and burden of congenital toxoplasmosis (CT) exists. We aimed to assess (1) the impact of an educational intervention on toxoplasmosis knowledge, knowledge confidence, and attitudes and beliefs, (2) gestational toxoplasmosis screening barriers, and (3) participant recommendations on how to successfully implement routine screening in Panama.

**DESCRIPTION:** The intervention consisted of a PowerPoint presentation addressing various aspects of toxoplasmosis. Surveys including a combination of true or false questions and attitudinal statements eliciting responses on a 5-point Likert scale were administered pre- and post-intervention. Changes from baseline were assessed using various statistical methods. Participants were also asked to provide written feedback and comment on how they believe routine screening can be implemented in Panama.

**RESULTS:** Fifty one medical students, 24 physicians, and 12 OB/GYN residents were recruited from various Panamanian medical schools, hospitals, and clinics. When toxoplasmosis knowledge was assessed, participants scored a post-intervention mean of 93.3%, an 18.3% increase from the pre-intervention mean of 75.0% ( $p<0.001$ ). Statistically significant improvements were observed in knowledge of gestational and congenital toxoplasmosis (1) symptoms, (2) disease, prevalence, (3) transmission, (4) fetal infection risk, (5) diagnosis, and (6) treatment. Additionally, a greater percentage of participants reported more knowledge confidence and positive attitudes and beliefs about toxoplasmosis prevention, treatment, prognosis, and feasibility of routine screening. These findings were consistent across study populations. Furthermore, despite laws that mandate gestational screening in Panama, participants reported many screenings barriers including patient education, lack of medical supplies and medication, and cost. Participant feedback suggests Ministry of Health (MINSA)-led interventions addressing screening barriers and public health campaigns in areas with limited healthcare access in the country's interior are needed in order to implement routine screening. Participants also emphasized the need for more accessible and affordable screening tests.

**CONCLUSION:** Our educational intervention effectively improved toxoplasmosis knowledge, knowledge confidence, and attitudes and beliefs in a cohort of medical students, physicians, and OB/GYN residents. Screening barriers and recommendations reported by participants are good targets for MINSA-led efforts to tackle the challenge of routine gestational toxoplasmosis screening implementation in Panama, especially in low-income communities and under-resourced healthcare centers. More education related to toxoplasmosis and studies evaluating the efficacy and impact of educational interventions on screening compliance and CT incidence are needed in both the general population and medical community in Panama. Such research can contribute to the development of more robust screening programs and, in turn, help reduce the incidence and burden of this devastating congenital disease.



## Modeling Safe Infant Sleep in the Hospital

EMILY FREY, MSC, MS2; NICOLE HAMP, MD; NICOLA ORLOV, MD, MPH

**STATEMENT:** Despite significant reductions in the rate of Sudden Infant Death Syndrome (SIDS) over the last 20 years, sleep related deaths still account for approximately 3,500 deaths annually in the United States. In October 2016, the AAP released new recommendations for the safe sleep of infants. The AAP recommends that healthcare providers endorse and model safe sleep practices in all interactions with parents and caregivers of infants, including in the inpatient setting. However, studies and experience indicate that even when guidelines are well known, there are many cases of non-adherence in the hospital setting leading to concerns that parents receive inconsistent messages regarding the importance of safe sleep practices (SSP).

**OBJECTIVE:** We aimed to improve SSP adherence by healthcare providers working with infants admitted to the general pediatrics service. We hypothesized that following our initial educational interventions reviewing the 2016 AAP SSP for the pediatric hospitalists, residents and nurses working on the general pediatric inpatient service, compliance with five identified SSP (infant supine, alone, in a flat crib, with no objects, and covered in a manner that limits the risk of overheating and suffocation) would improve by 25% as measured by room audits.

**DESCRIPTION:** We aimed to determine providers' baseline knowledge of SSP, to provide focused educational interventions regarding recommendations for a safe infant sleep environment in the hospital, and to evaluate improvement by assessing adherence to SSP before and after education. Brief educational presentations were delivered to nurses, residents, and hospitalists. Information was presented in a variety of formats; however, all participants received the same basic content including: current rates of SIDS and associated disparities, current hospital practices, ideal sleep practices, and the role of healthcare providers in modeling SSP for caregivers. Room audits were conducted to assess adherence to the SSP before and after intervention.

**RESULTS:** Surveys administered prior to intervention indicated that the targeted providers were aware of the SSP with few exceptions; however, baseline room audits indicated that despite this knowledge, SSP was not followed in the hospital. While, the majority of patients were found in the supine position and alone in cribs at baseline, very few patients were found in flat cribs, with no objects, or covered appropriately. Results for improvement in SSP post intervention were mixed. We did not observe a statistically significant change in supine sleep placement or infants sleeping alone post intervention. However, significant ( $p < .05$ ) improvements were made keeping the crib flat, removing objects from the crib, and ensuring appropriate bundling. Overall SSP adherence increased by 12.5% following intervention.

**CONCLUSION:** In this study, we demonstrate that the general pediatric inpatient setting provides ample opportunities for providers to serve as safe sleep role models but that healthcare providers often do not follow safe sleep practices. Though modest, this ongoing quality improvement study also demonstrates that improvements in SSP adherence can be achieved using brief, focused educational interventions.

## Home CaRE: Simulation-based Home Caregiver Readiness Education for Discharge of Medically Complex NICU Babies

BRIDGET WILD, MD; LYNN MAYBERRY, RN; MATTHEW PELLERITE, MD, MPH

**STATEMENT:** Discharge of medically complex infants from Neonatal Intensive Care Units (NICUs) can be a highly stressful experience for families. Regular use of high fidelity simulation to master high level skills and enhance confidence can better prepare families for this transition.

**OBJECTIVE:** To decrease anxiety associated with discharge and facilitate skill acquisition, we piloted a nursing-driven, caregiver-centered, simulation-based curriculum (Home CaRE) for families of infants discharged from our NICU with medical equipment including: nasogastric tubes, gastrostomy tubes, ostomies, urinary catheters, and tracheostomies.

**DESCRIPTION:** In our level III NICU, a Care Coordinator (CC) attends medical rounds, tracking which infants will require home medical equipment. At least two home caregivers are identified. Before attempting interventions on their infant, the caregivers join the CC and primary nurse in the simulation lab learning anatomy, basic care, required skills, and troubleshooting for home. A standard checklist of knowledge and skills needed exists for each equipment type. The number of sessions vary according to each family's needs. Caregivers graduate after simulating possible home emergencies, always arriving at a safe result to reinforce lessons learned. A brief anonymous pre and post intervention survey tracks the quality of the intervention.

**RESULTS:** Sixty caregivers attended at least one session of Home CaRE, and 53 (88%) completed the curriculum; see figure 1. Eight (13%) identified Spanish as their primary language. A medical interpreter was present for sessions. Prior to Home CaRE only 16 (27%) felt ready to care for their baby at home after discharge "to a great extent". At the completion of Home CaRE, 41 (77%) made a confident endorsement ( $p<0.0001$ ). Forty-six (87%) felt mannequin-based practice in the simulation lab improved their comfort prior to performing interventions on their baby "to a great extent."

**CONCLUSION:** Medical simulation for lay caregivers, is a novel education model, improving discharge readiness for families of infants with complex medical needs. Home CaRE is a prototype for building learner friendly, performance-based education programs for families welcoming home a medically complex baby. We hope to better understand how this intervention relates to length of stay, developmental outcomes, family stress, and readmissions/ER visits related to medical device issues, and hope to see high fidelity medical simulation for lay providers implemented in other disciplines.

## Does Rapid Cycle Deliberate Practice Improve the Retention of Knowledge & Skills for First Time NRP Certifiers?

GILLIAN BRENNAN, MD; CHRISTINE O'MALLEY, APN; JOANNE RAMEY, APN;  
LETICIA LEMUS, APN; MATTHEW PELLERITE, MD; CHRISTINE CARLOS, MD;  
ELIZABETH BOYLE, MD; MARCIE LAMBRIX, MA; MELISSA CAPPAERT, MA;  
ROBERT BURGIN

**STATEMENT:** The Neonatal Resuscitation Program (NRP) is used for teaching healthcare providers the knowledge & skills necessary to resuscitate newborns. These skills are known to degrade over three to eight months with recertification required every 24 months. Rapid cycle deliberate practice (RCDP) is a method utilizing direct, immediate feedback allowing learners to try again right away, instead of the traditional observed scenario followed by debriefing. RCDP has shown to be effective in improving trainee's pediatric resuscitation skills.

**OBJECTIVE:** To assess whether using RCDP during first time NRP certification improves knowledge and skill retention compared to traditional teaching methods.

**DESCRIPTION:** Design/Methods: All pediatric interns who had never received prior NRP training were eligible to participate. Participants completed standard NRP didactic session prior to simulation training and were then randomly divided into 2 groups: Group 1 received traditional NRP simulation-based training with instructor-led debriefing, and Group 2 received RCDP during their simulated scenarios. All sessions, regardless of group, were limited to two hours. Following completion of training, participants completed a post-test questionnaire to assess their NRP knowledge and confidence. Available participants completed a one-month follow-up standardized resuscitation scenario during which each acted as a team leader. Sessions were video recorded and then timed and scored by blinded raters using a modified NRP checklist. All participants completed the same post-test questionnaire to assess their knowledge and confidence regarding NRP.

**RESULTS:** Twenty-six interns completed the initial NRP training; 20 interns completed the one-month follow-up. There was no significant difference in knowledge or confidence between the two groups after the initial NRP training or at the one- month follow-up. There was however, a significant improvement in the resuscitation skills of the RCDP group compared to the traditional group at one-month follow-up: the RCDP group performed significantly better than the traditional group using the modified NRP checklist ( $p = 0.008$ ), they also administered positive pressure ventilation, intubated, started chest compressions, gave epinephrine, and completed the resuscitation significantly earlier than the traditional group ( $p < 0.05$ ).

**CONCLUSION:** The data suggests that teaching NRP using RCDP methods does not alter knowledge or confidence but may improve retention of resuscitation skills among first time NRP certifiers. Follow-up testing at 3-24 months is necessary to determine whether this effect remains for longer.



## Social Media Editors: A Force-Field Analysis of Qualitative Data

MELANY LOPEZ, MS3; BRENT THOMA, MD, MA, MSC, UNIVERSITY OF SASKATCHEWAN;  
TERESA CHAN, MD, MHPE, MCMASTER UNIVERSITY; VINEET ARORA, MD, MAPP;  
NATHAN SETH TRUEGER, MD, MPH, NORTHWESTERN UNIVERSITY

**STATEMENT:** As the online community of health professionals continues to grow, a number of journals have installed social media editors (SMEs) to use social media as a means to promote journal articles and to engage readers. We aimed to determine the roles and responsibilities for this new type of editor to assist other journals considering the creation of this position.

**OBJECTIVE:** Describe why medical journals are using social media and determine the barriers and facilitators that social media editors face in fulfilling their responsibilities.

**DESCRIPTION:** We interviewed members of the Association of Medical Journal Social Media Editors and used a snowball sampling technique to identify further SMEs. A team of three authors then created a series of open-ended questions with directed follow-up questions to elicit responses from subject SMEs. We invited the 30 SMEs we identified to participate in the semi-structured phone interviews following the questionnaire. The recorded calls were transcribed using InqScribe (Inquirium, LLC, Chicago, IL). All identifiers in the transcription were removed, and the original audio recording was destroyed. We used 33% of the interview transcripts to develop a coding scheme by which the remaining transcripts were coded to identify common themes. One coder has been selected as the auditor, and a member check is in progress to increase the rigor of our analysis.

**RESULTS:** Thirty SMEs were invited to interview, and 24 responded, giving an 80% response rate. Nineteen elected to interview by phone, and the remaining five chose to respond via email. We identified three major themes with multiple subthemes within each category: goals, resources, and uncertainty. Within the goals for both journals and SMEs, several subthemes emerged, primarily the desire to manage the branding of the journal, to increase engagement of scientists, to increase readership and knowledge translation, and to legitimize social media activity as an academic pursuit. We subsequently identified resources from both the journals and the local institution as a second domain, discovering the facilitators and barriers each SME faced in this role and the competing demands from societies, publishers, and journals. Many SMEs identified the presence of strong leadership, funding, and staff support as integral to their success while others expressed frustration with a lack of these resources. Lastly, we noted the final domain of uncertainty expressed from the SMEs: does this count as academic credit; what are the ultimate goals; what is the impact, and is this sustainable? Several SMEs mentioned that “it is not clear that this counts the way that other traditional activities and roles do”.

**CONCLUSION:** To our knowledge, this is the first study to examine the role of the medical journal social media editors. We identified the goals for the journal and for the social media editor, as expressed and perceived by the SME. There was a wide variation in resources at both journals and institutions as well as a wealth of uncertainty regarding this evolving role; and unless supported financially and with academic credit, many SMEs may face barriers in the continuation and success of their activities.



## Connecting the Dots: The Use of Graphic Art to Empower Patient-Centered Technology Use

TYRONE JOHNSON, MS2; JACQUELINE NICHOLS, MS3; WEI WEI LEE, MD, MPH;  
M.K. CZERWIEC, RN, MA, GRAPHICMEDICINE.ORG; VINEET ARORA, MD, MAPP;  
M. LOLITA ALKUREISHI, MD

**STATEMENT:** While the benefits of electronic health record (EHR) use are known, studies have shown it can also be detrimental to the patient-doctor relationship. Patients can often perceive the EHR as an intrusive third party. Currently, providers receive little if any training on communication skills specific to EHR-related behaviors, and there have been no prior studies of patient-advocacy efforts aimed at increasing patient engagement and satisfaction with the EHR.

**OBJECTIVE:** The objective of the study was to understand doctors and patients responses to an advocacy and educational graphic comic. We assessed whether exposure to the patient comic changed patient perceptions and behaviors related to EHR use in clinical care. Additionally, we assessed whether the provider comic resulted in improved patient's perceptions related to their provider's EHR use in clinical care. The results will be used to improve the educational materials for maximal parent and provider impact.

**DESCRIPTION:** The patient and provider advocacy comics were based on a published systematic literature review of the impact of EHR use on the patient-doctor relationship and communication, in addition to a qualitative study on patient perceptions of EHR use. Three best practice behaviors for patient-centered EHR use were highlighted on each comic. Parents of patients at the Comer Pediatrics Primary Care Group (PPCG) were informed and consented, then handed the advocacy comic with a paper Likert-scale survey to complete after their visit. Additionally, willing participants were randomized for selection for a 50-person follow-up phone survey one to two months after their visit. Provider comics were placed in provider work areas of the PPCG. Eight PPCG providers were surveyed pre- and post-survey period for perceptions on the comic.

**RESULTS:** The respondent rate was 78%: 417 parents were approached for inclusion with 325 completed surveys (325/417, 78%). Over 70% ( $n \geq 231$ ) of parents rated providers positively in terms of EHR communication behaviors, over 50% ( $n \geq 158$ ) agreed that provider communication was improved compared to last visit, and over 68% ( $n = 224$ ) agreed that the comic was effective in encouraging involvement with computer use. Black and Hispanic parents were more likely to ask to see the screen and ask to be involved ( $p = .023$ ,  $p = .006$ ), and a negative correlation was observed between educational status and four advocacy behaviors ( $r_s = -0.125$  –  $-0.180$ ,  $p \leq 0.04$ ). On follow-up, 100% of parents remembered the comic, and 42% ( $n = 21$ ) recalled at least one best-practice behavior. Significant median increases were seen in parents' self-rated performance of three of the comic advocacy behaviors: asking to see the screen ( $p < .001$ ), calling for providers' attention ( $p < .001$ ), and feeling empowered to get involved ( $p < .001$ ).

**CONCLUSION:** This study is the first to evaluate the impact of a graphic art intervention on patient and providers' impressions and behaviors in regards to EHR use in the clinical setting. The advocacy comic was found to be effective in encouraging involvement, and an increase of ratings on follow up indicate an improving impact of the comic on patient self-advocacy with time. Data suggests the comic may be especially effective in minority and/or low-to-average education populations.



## ECHO-Chicago: Geriatrics – Enhancing the Geriatrics-Prepared Primary Care Workforce

**PARI JAFARI, MS2; TIA KOSTAS, MD; STACIE LEVINE, MD; TAMARA HAMLISH, PhD;  
DANIEL JOHNSON, MD; STEPHANIE ZAAS, MSPH; JEFFREY GRAUPNER, MPH;  
KATHERINE THOMPSON, MD**

**STATEMENT:** While adults over 65 will make up 20% of the American population by 2030, few primary care providers (PCPs) have received formal training in geriatrics. This “geriatrics-preparedness gap” is particularly problematic given older patients’ complex medical and social needs: most are multimorbid, and a third live at or near the federal poverty line. Despite this pressing need for greater geriatrics-preparedness within the primary care workforce, little is known of specific geriatrics knowledge/confidence gaps among community PCPs, and few continuing education programs exist to effectively address these deficits.

**OBJECTIVE:** Extension for Community Health Outcomes (ECHO)-Chicago: Geriatrics is an evidence-based telementoring program that seeks to improve community PCPs’ self-efficacy across a variety of geriatrics competencies. The program’s participatory, case-based format offers an opportunity for participants to share complex cases from their practice and to receive mentorship from facilitators and peers. As such, qualitative analysis of ECHO-Chicago: Geriatrics sessions offers unique insights into the practical, emotional, and logistical challenges faced by PCPs as they care for older adults.

**DESCRIPTION:** The ECHO-Chicago: Geriatrics course consists of twelve weekly, hour-long videoconferencing sessions led by academic geriatricians at the University of Chicago Medicine. Each session consists of didactic content and participant case presentations/discussions. By August 2017, three series had been completed, reaching a total of 107 participants from a variety of primary care practices across the Chicago area. The majority of participants were medical students or MDs. Other participants included RNs, APNs, PAs, and behavioral health providers. Participants received one hour of CME credit for each session attended. Participants were surveyed pre- and post-series on self-efficacy in geriatrics skills and frequency of geriatrics-specific behaviors.

**RESULTS:** Recordings of 30 ECHO sessions were reviewed and participant comments and discussions were qualitatively analyzed for emerging themes via a grounded theory approach. Participant comments were characterized by expressions of uncertainty and concern, clustering into three broad themes: (1) Medical management of complex cases (appropriate medication regimens; management of specific conditions); (2) Navigation of health care systems (identification of patient resources; coordination of care); and (3) Communication/cultural competence (discussing cognitive/functional decline; initiating end-of-life discussions; addressing patient non-adherence).

Such anxieties were frequently rooted in a lack of familiarity with geriatrics best practices or limited confidence in conducting emotional conversations with older patients and their caregivers. These demonstrations of need were met with advice and/or words of reassurance from ECHO facilitators and peers. This robust dynamic formed a unifying thread across the three ECHO series.

Participant self-efficacy, measured along a 7-point Likert scale, increased significantly ( $p<0.5$ ) across all 15 queried geriatrics competencies (e.g., ability to treat dementia patients) between the pre- and post-course surveys (response rate 61%). Participants also reported significant increases in the frequency of several “geriatrics-oriented” practice behaviors, including assessing for caregiver burden and conducting advance directive discussions.

**CONCLUSION:** Community PCPs face many common challenges in caring for complex older adult patients. ECHO-Chicago: Geriatrics is a novel continuing education intervention with the potential to address a growing need by significantly improving geriatrics-preparedness among community PCPs.

## Achieving Adoption: Leveraging Systems and Tools for Safe and Efficient Patient Care

DAVID LIEBOVITZ, MD; MICHAEL CUI, MD

**STATEMENT:** Successful electronic healthcare record (EHR) use can transform care delivery. Efficient use of the EHR can lead to greater clinical efficiency and decrease physician burnout. Patients and families can be engaged and empowered as multiple communication channels become available. Evidence based practice can seamlessly be incorporated while physician decision support can continue to improve care. With so many possible interventions and limited resources, high impact interventions must be isolated and prioritized.

**OBJECTIVE:** The program objective is to utilizing the Provider Efficiency Profile (PEP) report and the developing nightly burden of EPIC report to determine areas of improvement in health information technology workflow and to promote adoption of best practices. Individual provider workflow privacy will be maintained for this project.

**DESCRIPTION:** The PEP is a report generated monthly by Epic Systems, in Verona, WI, using database tools that monitor use of the UCMC installed Epic electronic health record. This aggregate PEP report provides the ability to generate individual usage reports for each UCMC attending physician. The report generates a proficiency score and an individual efficiency assessment through tracking of time spent in specific sections of EPIC.

After additional analysis, a Nightly Burden metric was created which monitors the distribution of time spent in ambulatory Epic from 7PM to 7AM. PEP details and 7PM to 7AM activity form the basis for identifying best practices used by efficient providers.

**RESULTS:** An example of data available for May 2017: In Internal Medicine, 3,691.33 clinic hours were scheduled resulting in 5,085 hours spent in EPIC. Nightly burden in EPIC was 595.10 hours resulting in a nighttime hours to daytime hours ratio of 13.25%. Among the specialties initially reviewed, the nightly burden ratio was the highest for Nephrology at 25.29% and lowest for Surgery-Transplant at 8.42%. When comparing hours spent on notes per scheduled clinic hours, High efficiency users spent 0.2 hrs compared to 0.5 hrs in low efficiency users ( $p<0.005$ ).

With many more planned, to date, six 2-minute videos have been created targeting key efficiency practices. The efficiency workflows covered include use of custom note templates, creating pre-visit documentation, leveraging the problem list efficiently, ensuring the preferences are set correctly, sending faxes, and receiving “in-workflow” CME credits.

**CONCLUSION:** The study showed that the PEP is useful in identifying both areas for improvement and best practices. Additionally, the night time burden of ambulatory EPIC use is objectively demonstrated to be high.

Next steps include targeting video distribution to practices most deemed to benefit together with additional targeted outreach to those specialties at section meetings. Outcomes to be monitored include PEP scores, nighttime use of Epic, and provider satisfaction. Further, super users will be identified in clinical practices to improve efficiency and PEP proficiency scores. Lastly, we plan to obtain similar reports for residents and fellows for specific practice based improvement feedback.

## Objective Evaluation of a Structured Didactic Radiation Oncology Clerkship Curriculum: A Report from the Radiation Oncology Education Collaborative Study Group

DANIEL GOLDEN, MD; GREG KAUFFMANN, MD; RYAN MCKILLIP, MS4; ALAN SCHWARTZ, PhD,  
UNIVERSITY OF ILLINOIS AT CHICAGO; JEANNE FARNAN, MD MHPE; YOON SOO PARK, PhD

**STATEMENT:** A structured didactic radiation oncology clerkship curriculum for medical students is in use at multiple academic medical centers (AMCs). Objective evidence supporting this educational approach over the traditional clerkship model without structured didactics is lacking.

**OBJECTIVE:** This study evaluates the efficacy of the curriculum using an objective knowledge assessment.

**DESCRIPTION:** Medical students received the Radiation Oncology Education Collaborative Study Group (ROECSG) curriculum consisting of three lectures (Overview of Radiation Oncology, Radiation Biology/Physics, and Practical Aspects of Simulation/Radiation Emergencies) and an interactive hands-on radiation oncology treatment planning workshop. A standardized 20-item multiple choice question (MCQ) knowledge assessment was electively and anonymously completed pre- and post-curriculum and approximately six months after receiving the curriculum. MCQ and answer choice order was shuffled for the post-curriculum and long-term assessment. An answer key was not provided. Paired and unpaired t-tests, Pearson's correlation coefficient, and regression analysis were used to analyze the data.

**RESULTS:** One hundred forty six students at 22 AMCs completed the ROECSG curriculum from 7/2016 - 11/2016. One hundred nine students completed pre- and post-clerkship MCQ knowledge assessments (response rate 75%). Twenty four students reported a prior rotation at a ROECSG institution. Subsequent data are reported for the 85 students receiving the curriculum de novo. Mean assessment scores pre- and post-curriculum were 63.9% and 80.2%, respectively ( $p<0.01$ ). Subset analysis ( $n=50$ ) demonstrated a correlation between USMLE step 1 score and pre-test score ( $p=0.35$ ,  $p=0.03$ ), but USMLE step 1 score was not associated with post-score after adjusting for pre-score on regression analysis ( $p=0.39$ ). Mean MCQ knowledge subdomain assessment scores pre- and post-curriculum were 74.8% vs. 87.1% for Overview of Radiation Oncology, 58.4% vs. 80.2% for Radiation Biology/Physics, 63.2% vs. 77.4% for Simulation/Radiation Emergencies, and 55.9% vs. 72.4% for planning ( $p$  values all  $<0.01$ ). Post-scores for students rotating de novo at ROECSG institutions ( $n=30$ ) were higher compared with pre-scores for students with 1 or more prior rotations at non-ROECSG institutions ( $n=55$ ) (77.3% vs. 68.8%,  $p=0.01$ ). Time since first rotation did not correlate with pre-test score ( $p=-0.09$ ,  $p=0.50$ ). The 24 students who completed a prior ROECSG rotation demonstrated a trend for score improvement (pre-curriculum 78.5% vs. post 86.6%,  $p=0.10$ ). Students who completed rotations at ROECSG institutions continued to demonstrate a trend towards improved performance on the objective knowledge assessment at approximately six months after curriculum exposure (70.5% vs. 65.6%,  $p=0.11$ ).

**CONCLUSION:** Objective evaluation of a structured didactic curriculum for the radiation oncology clerkship at early and late time points demonstrates significant improvement in general radiation oncology knowledge and all knowledge subdomains. On exploratory analysis, students completing a clerkship at ROECSG institutions perform objectively better when compared with students who completed clerkships non-ROECSG institutions. These results support including a structured didactic curriculum as a standard component of the radiation oncology clerkship.

## Designing a Resident-Targeted Medicine and Pediatrics Global Health Curriculum for University of Chicago Medicine

ELLORA KARMARKAR, MD, MSC; KEEGAN CHECKETT, MD

**STATEMENT:** Global health experiences are rife with ethical complexities and practical challenges. Visiting trainees often have inadequate understanding of socio-cultural determinants of health, and inexperience with resource limitations. In addition, short term trips generally undermine the local health infrastructure and burden the local population. However, trainees with global health experiences are more likely to serve the underserved, pursue public or global health, and understand the “globalization of illness”. Limited-resource environments, if the interaction is done well, ideally gain additional investment, educational collaboration, and sense of global solidarity. Given the interest in global health at the University of Chicago, but cognizant of the risks of short term global health experiences, we conducted a needs assessment and designed an ethically grounded global health pre-departure curriculum for Medicine, Pediatrics, and Medicine-Pediatrics residents.

**OBJECTIVE:** To assess the baseline level of interest in global health practice among the target resident group through a needs assessment, and to design a teaching series for the target resident group focused on improving knowledge of global health practice and ethics, value placed on global health philosophy, and practical skills in ultrasound and clinical and ethical simulations.

**DESCRIPTION:** Based on our needs assessment, we constructed a nine-part multidisciplinary monthly lecture series that draws on the expertise of our medicine, pediatrics, law, and economics faculty. Lecture topics include worldwide epidemiology of disease, global health philosophy, ethics of global health, and US health care challenges. We crafted knowledge-based questions to assess key concepts in global health that will be used as part of a pre- and post-knowledge assessment. For a sub-group that also requested access to skills training, we are working with simulation faculty at NorthShore University HealthSystem and ultrasound faculty at the University of Chicago Medicine to provide practical sessions on ethics, ultrasound, and clinical simulation.

**RESULTS:** Our initial needs assessment (2016) reached a 50% response rate out of approximately 175 possible respondents. Fifty eight percent of participants were interested in learning about global health. For participants with prior global health experiences, only 53% received a pre-departure curriculum. In the follow-up pre-intervention assessment (2017), only 65 residents responded out of a possible 196 participants. Despite the lower response rate, the majority of respondents strongly agreed/agreed with interest in learning more about global health practice (86.2%), strongly agreed/agreed that knowledge of global health philosophy would positively impact their current practice (84.6%), and expressed interest in a lecture series (87.7%). Of the residents who have worked outside the United States, only 32.4% did not receive a pre-departure curriculum: an improvement from the cohort in 2016. The majority of respondents (56.9%) did not feel knowledgeable about providing care in a resource-limited setting outside of the United States.

**CONCLUSION:** Among residents, there is marked interest in education on global health practice as well as value placed on learning global health skills. The creation of a robust global health curriculum focused on promoting health equity would address this interest, provide ethical grounding, and give residents practical tools to contribute meaningfully in any environment, nationally or internationally.

## TMW-Pediatrics: Strengthening the Pediatric Provider's Role in Parent Education on Early Learning and Language Development

DANIELLE LORE, MS4; PETER LADNER, MS4; LOGAN GALANSKY, MS2;  
DANA SUSKIND, MD

**STATEMENT:** Infants born into poverty show disparities in cognitive development as early as nine months of age, when compared with peers born into higher socioeconomic (SES) families. These disparities broaden over time, doubling by the age of two and impacting school readiness. This discrepancy stems from a "word gap" first elucidated in a landmark study by Hart & Risley (1995), where children from low SES backgrounds were found to hear 30 million fewer words from birth through age three than children from high-SES backgrounds.

Educating and empowering parents to use their words to stimulate their child's early brain and language development is critical in order to prevent this disparity. Pediatricians' longitudinal relationship with parents and children starting from birth makes them well suited to provide this early education.

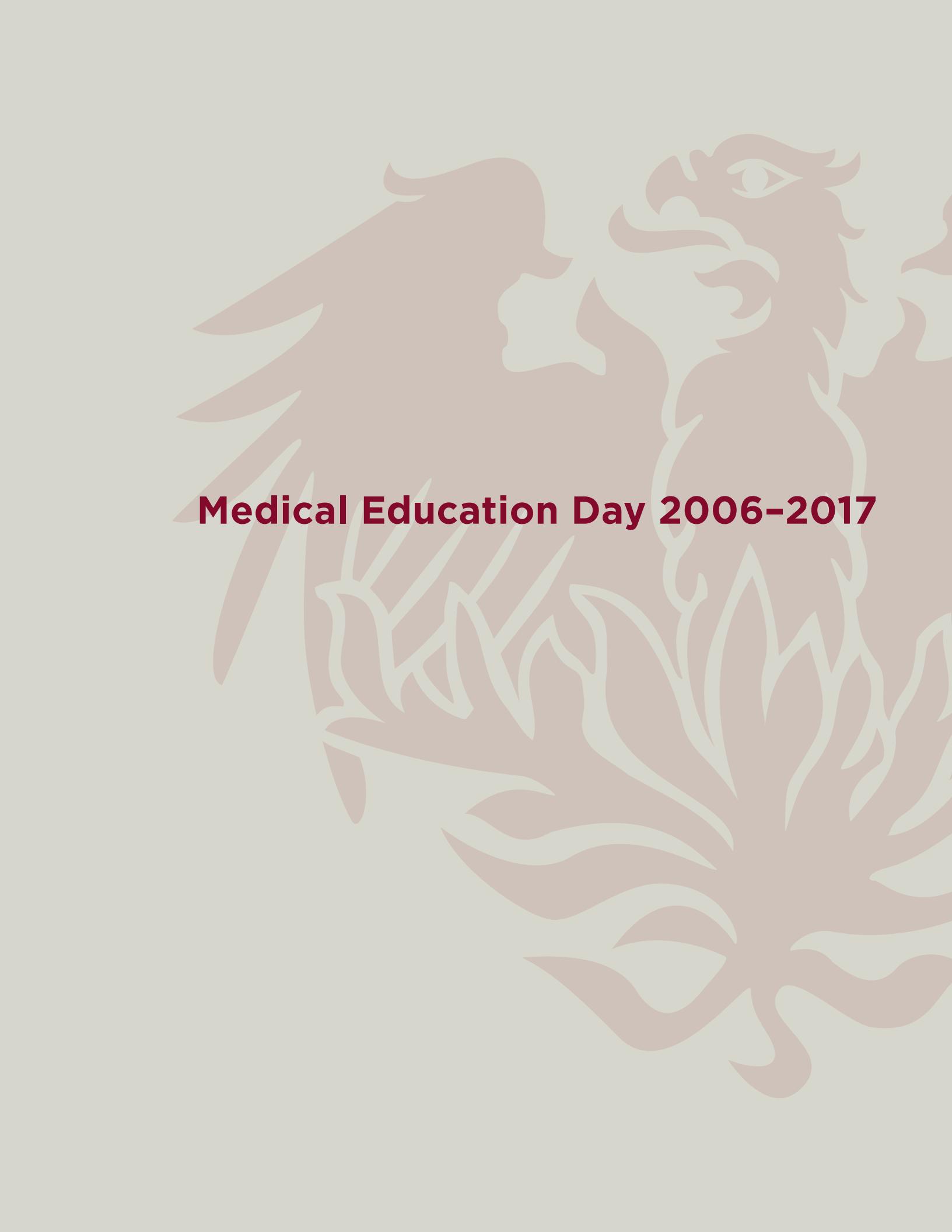
**OBJECTIVE:** The Thirty Million Words® Initiative (TMW) seeks to impact doctor-patient communication on early learning through the development of the TMW-Pediatrics curriculum. TMW-Pediatrics targets pediatric health care providers and strengthens their knowledge and skills in giving anticipatory guidance to parents about the role of early learning and language environments in cognitive development.

**DESCRIPTION:** As a scalable, technology-based program, TMW-Pediatrics will consist of self-guided modules administered online. These modules will first focus on educating providers on this language and cognitive development disparity and its underlying neurodevelopmental science. Secondly, they will teach providers how to educate parents using the 3T's, our easy-to-understand behavioral strategies, which encourage parents to Talk More with their children using descriptive words, Tune In to what their child is communicating, and Take Turns to foster conversation with their child.

To inform development of the curriculum, we administered an adaptation of TMW's existing Survey of Parent Expectations and Knowledge (SPEAK) assessment to identify current practices and areas of weakness regarding early language development. These topics include child-directed speech, intellectual malleability, parent responsiveness and attachment, and electronic media use.

**RESULTS:** The adapted SPEAK surveys were completed by 322 trainees, including medical students, residents, and fellows. Among the trainees, 75% reported that early childhood learning and language development were addressed in their curriculum. When asked how often they discuss early learning and language development with parents, 23% reported 0-25% of the time, 26% reported 25-50%, 24% reported 50-75%, and 28% reported 75-100%. The average age at which they started discussing early learning and language development with parents was 3.43 months. On the adapted SPEAK surveys, trainees scored lowest on items testing parent attachment and responsiveness and intellectual malleability.

**CONCLUSION:** Although the majority of trainees are receiving education on early childhood learning and language development, only 28% are consistently addressing these topics with parents. These discussions are taking place around three months of age, missing critical months of brain development. The TMW-Pediatrics curriculum will address the importance of discussing these behaviors early with parents in the newborn period, as well as strategies for parents to best promote early learning environments.



**Medical Education Day 2006-2017**



## Academy Grants Awarded: 2006-2017

### 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 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 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, MHPE; 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 MARSHKE 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 MARCANGELO, 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

**M. 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, MHPE;  
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 WILLCOX, MD; LYNDA HALE;  
JIZ THOMAS, PHARMD, BCACP**

## 2016-18

The Patient-Partnered Clinical Experience (PPCE)

**JOYCE 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-SCHEETZ, MD; STEVE WHITE, MD;  
CATHY STAFFON; JENNIFER AUSTIN, PHARMD;  
MARY LANIGAN, RN; VINEET ARORA, MD, MAPP**

## 2017-19

A Contraception Counseling Quality Improvement and Shared-Decision Making Initiative for Primary Care

**JENNIFER RUSIECKI, MD, MS; JULIE OYLER, MD;  
AMBER PINCAVAGE, MD**

## 2017-19

The O.P.I.A.T.E Project: Outpatient Principles In Addiction Training and Education

**AUDREY TANKSLEY, MD; NAVNEET CHEEMA, MD;  
DAVE GADJOSIK, PHARMD;  
TANYA WASHINGTON, MSW; NICOLE GIER, LCSW;  
JON GRANT, MD; JEANNE FARNAN, MD, MHPE;  
VINEET ARORA, MD, MAPP; DAVID MELTZER, MD, PhD**

# Medical Education Day Keynote Speakers: 2006–2017

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

2017

**CARLA PUGH, MD, PHD**

*University of Wisconsin*

Sensors, Motion Tracking and Data Science:  
Unfolding the Metrics of Mastery

# **Program and Clerkship Directors Retreat Topics: 2009-2017**

**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

**2017**

Developing a Successful Career as a Medical Educator:  
Tackling Unaddressed Barriers Through Communities of Practice





# **Academy Funded Research and Request for Applications: Medical Education Research**



## **Current Academy Funded Research**

**2017-19**

The O.P.I.A.T.E Project: Outpatient Principles In Addiction Training and Education

AUDREY TANKSLEY, MD; NAVNEET CHEEMA, MD; DAVE GADJOSIK, PHARMD;  
TANYA WASHINGTON, MSW; NICOLE GIER, LCSW; JON GRANT, MD; JEANNE FARNAN, MD, MHPE;  
VINEET ARORA, MD, MAPP; DAVID MELTZER, MD, PHD

A Contraception Counseling Quality Improvement and Shared-Decision  
Making Initiative for Primary Care

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STEVE WHITE, MD; CATHY STAFFON; JENNIFER AUSTIN, PHARMD;  
MARY LANIGAN, RN; VINEET ARORA, MD, MAPP

The Patient-Partnered Clinical Experience (PPCE)

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

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 12, 2018**

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:

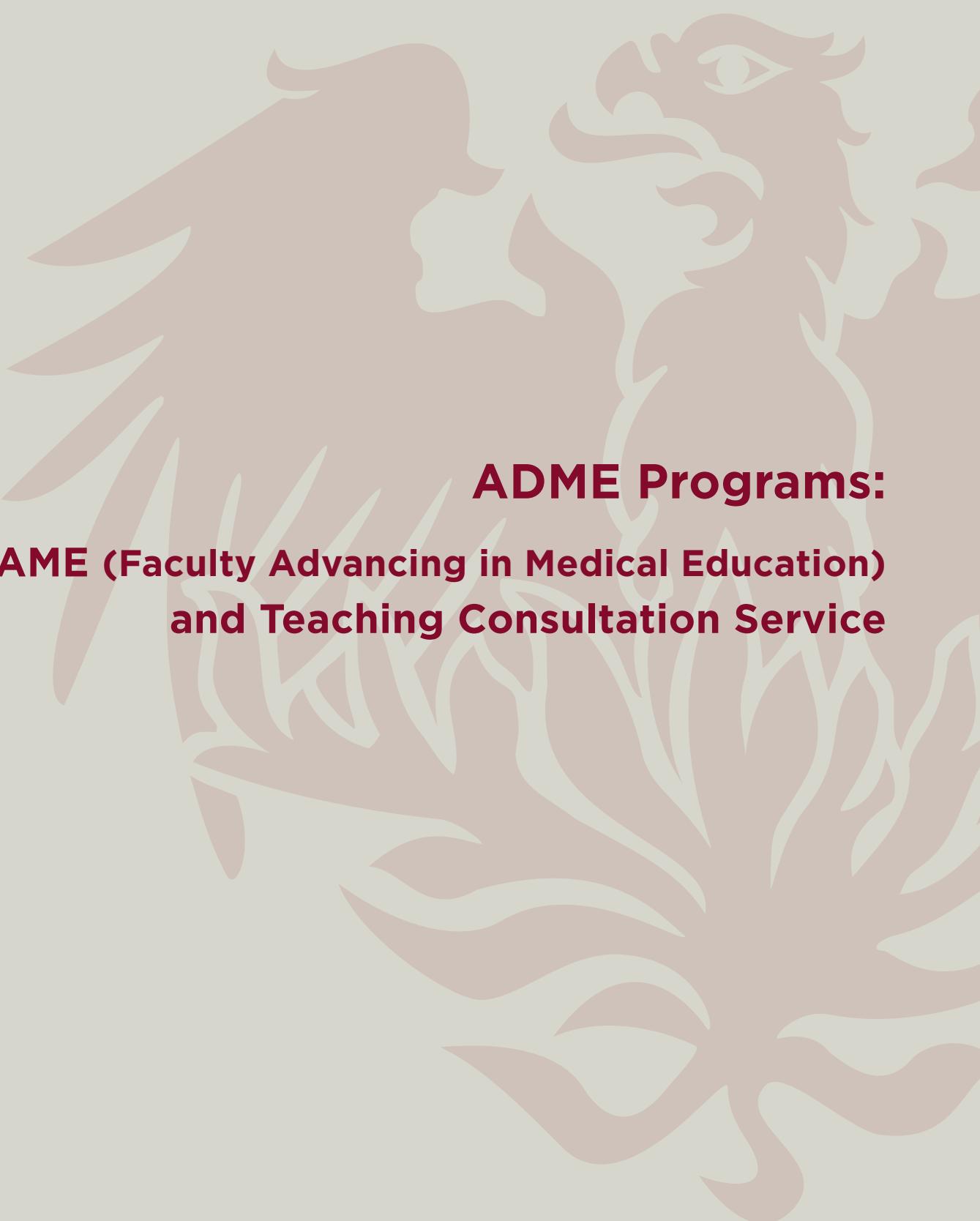
- Integration of clinical medicine and basic science
- Fostering scholarship in medical school and/or residency training
- Innovative programs in quality improvement or systems-based practice for students and/or residents
- Interprofessional education

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-med@bsd.uchicago.edu](mailto:dean-for-med@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 12, 2018. 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 2, 2018 with funding to commence on July 2, 2018.

This RFA is the tenth 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.

FAME sessions are open to all faculty, and are offered on a variety of days and times to accommodate clinical schedules.

**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 upcoming FAME sessions:**

**TUESDAY, FEBRUARY 20, 2018, 12:00PM-1:30PM**

**Leading Small Group Sessions Effectively: Preparation, Educating, and Connecting**

Michael Marcangelo, MD, FAPM, DFAPA, *Associate Professor,*

*Department of Psychiatry and Behavioral Neuroscience*

Nicola Orlov, MD'08, MPH, *Assistant Professor,*

*Department of Academic Pediatrics*

**THURSDAY, APRIL 19, 2018, 2:30PM-4PM**

**Improving Skills in Giving Effective Feedback to Learners**

Halina Brukner, MD, *Professor of Medicine*

Diane Altkorn, MD'82, *Professor of Medicine*

Amber Pincavage, MD'07, *Assistant Professor of Medicine*

**THURSDAY, MAY 10, 2018, 12:00PM-1:00PM**

**Mentoring in Scholarship**

Beth Plunkett, MD'97, MPH, *Clinical Associate Professor,*

*Department of Obstetrics and Gynecology, NorthShore University HealthSystem*

Rachel Wolfson, MD'00, *Associate Professor, Pediatric Critical Care*

For more information and to register, visit our website at:

<http://pritzker.uchicago.edu/page/faculty-development-workshops>

# **Academy of Distinguished Medical Educators**

## **Teaching Consultation Service**

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, if the faculty member requests, the Academy may provide the formal recognition of participation to their section chief or chair.

Faculty and residents who have utilized this service have found it to be an extremely valuable experience. Faculty members 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>