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Director's Corner

Marjorie Lee White, MD, MPPM, MA

OIPS -- The Office of Interprofessional Simulation for Innovative Clinical Practice does three main things: 1)

ECMO Space Simulations

Lisa Bagby, MSN, RN

Develops UAB's simulation community of practice; 2) Supports innovation in simulation development; and 3) Sponsors, supports and tracks simulation activity for its constituents. We had activity in all of these areas in August as you can see in this newsletter.

In order to sustain this activity and to expand our research focus, our simulation team is changing. I'm thrilled to officially welcome two new OIPS team members. Shilpa Register, OD, PhD has joined the Department of Ophthalmology and will serve as OIPS's part-time Director of Research starting August 1, 2016. I've charged her with leading our efforts to become world-class in simulation research. Please see her column about her plans, and feel free to reach out to her with your ideas. Carmel McNicholas-Bevensee, PhD is an outstanding educator in the Department of Cell. Developmental and Integrative Biology. Carmel will join OIPS as our part-time, University-focused Simulation Educator starting October 1, 2016. Please reach out to her as she is getting to know our programs. Both Carmel and Shilpa have been involved with OIPS for several years and are experienced simulationists. I know you'll join me in welcoming them. Please read more about them in their profiles below.



On August 23, 2016, The Office of Interprofessional Simulation (OIPS) partnered with Facilities Planning to provide simulation sessions to evaluate proposed plans for future space to care for critically ill patients on veno-venous (VV) extracorporeal membrane oxygenation (ECMO) at UAB. The goal of the simulations were to determine if the room layout could meet the needs of the healthcare providers and allow them to provide safe patient care for VV ECMO patients in the space. The simulation occurred in the current CCU, as the layout of these rooms closely resembled the proposed plan for the future space. Direct care providers from multiple professions, administrative leaders, and facilities planners were invited to a series of simulation sessions and were asked to provide feedback related to patient safety, work flow, accessibility, visibility, equipment placement, and general utility of the room. An "open house" session showed a simulated care environment with a manikin patient with the equipment and supplies placed in the room that would be required for care. Immersive simulation sessions followed to stress the environment, including accessing the patient for radiology studies, transfer of the patient to a specialty bed, cannulation for ECMO, ECMO circuit change, and management of critical emergencies. Feedback provided from 67 participants from 10 different professions was provided to facilities planning and administration. The simulation sessions were well received, and overall participants and observers enjoyed the experience. One participant stated "this kind of staff involvement, along with the simulation department, should become the standard for future development." OIPS would like to thank all participants, observers, and the many people who helped orchestrate these complex simulations.

OB/GYN Resident Simulations: Delivery of Bad News & Preparing for the "Unexpected"

John Woods, MD



The simulation experience for PGY-1 and 2 residents begins with simulated vaginal deliveries and opening/closure of the abdomen. Simulated vaginal deliveries are performed using a hemi-pelvis that depicts variable delivery scenarios. By providing different scenarios with which to practice, residents are given practical experience in the management of "unexpected obstetrical complications." For cesarean section practice, a simulated abdominal wall is constructed and placed on a full-body obstetrical manikin. Learners are given the opportunity to practice opening and closing of the abdomen. These are basic

surgical skills that are ideally practiced in the simulated setting before there is a need involving an actual patient. We have also conducted resident workshops on management of "Shoulder Dystocia" and "Operative Vaginal Delivery." Management of a shoulder dystocia requires a skilled practitioner and interpersonal communication skills that enhance team functioning and promote

improved patient safety. For this academic year, we held two sessions for resident training in "Operative Vaginal Delivery." These educational and hands-on sessions began with a pre-session written test followed by a comprehensive didactic session conducted by Cynthia Brumfield, M.D., Professor in the Division of Maternal Fetal Medicine. Following this informative session, residents were given the opportunity to practice the different techniques for operative deliveries which are referred to by many as a "lost art." Two weeks following this training, residents were provided a post-session test to assess retention of their knowledge.

A priority of the Department of Obstetrics and Gynecology is to provide practice for residents in difficult consultations as well as unexpected and uncommon obstetrical emergencies. As part of our program review, residents expressed a need for more experience in delivery of bad news. At the beginning of this academic year, we initiated training sessions that provide the opportunity for our more junior residents to deliver news to a patient that has experienced fetal demise. This is a very difficult issue to discuss even for the experienced clinician, but especially for residents in-training. We have been fortunate this year to have Kristy Benefield, RNC-NIC, Bereavement Coordinator for the UAB Women and Infants Center in attendance at these sessions. Her expertise in discussing the resources available for patients and their families during the loss of a child is invaluable and most appreciated.

Mission and Vision of OIPS Research

Shilpa Register, PhD, MS, OD

At the Office of Interprofessional Simulation, we want to be an international leader in simulation research. We would like to develop, support and track research initiatives that are consistent with our vision. We hope to focus on knowledge into practice, innovation, patient safety, and interprofessionalism.

At UAB, we are fortunate to have a diverse and broad group of engaged learners who span the UAB Health Schools and the UAB Health System including health professional students, residents, fellows, faculty and staff. I am excited to share current research projects, research opportunities, and professional development information with all of our Sim Friends & Family. Stay tuned for more information on selected research topics to support your professional development. I look forward to working with each of you on current and future research projects as we continue to contribute to local, national and international simulation research. Please feel free to reach out to me if you have suggestions for shaping OIPS's research agenda. We are planning an OIPS Simulation Research organizational meeting on Thursday, November 3 @ 11:30a. Please make plans to join us.

For more information about OIPS and simulation research please visit <u>www.uab.edu/simulation</u> and look under the scholarship menu.

OIPS partners with Alabama Possible for Lifetime of Learning Conference

Laurel Hitchcock, PhD, MPH, LCSW, PIP & Dawn Taylor Peterson, PhD



In 2014, the UAB Office of Interprofessional Simulation (OIPS) began a partnership with Alabama Possible that has transformed interprofessional simulation on the UAB Campus. This semester, OIPS will partner once again with Alabama Possible to host a poverty simulation at their annual Lifetime of Learning Conference. <u>Read</u> more...

The conference will be held on October 7 from 9 AM -3:30 PM at the UAB Hill Center. This year's theme is Engaged Learning as Justice Learning, and all UAB students, staff and faculty are invited to attend.

Registration details are available at: https://www.eventbrite.com/e/2016-lifetime-of-learning-

Emergency Medicine Intervention Simulations

Chris Greene, MD

On August 15, 2016, we hosted a simulated patient care session for third and fourth year medical students. Cases were selected due to relevance to particular challenges in management of common emergent conditions in low and middle-income countries (LMIC). While most students had encountered this material before, the added challenge of simulating management in austere or resource-limited environments promoted creative problem solving, cultural competence, and deepened understanding of common disease presentations and management strategies.



This simulated learning session also served as a pilot session for a project we are developing in Kenya, entitled the Kenyan Emergency Medicine and Critical Care Conference (KEMCCC), scheduled for September of this year. Its objective is to improve the quality of emergency and critical care delivery among two residency programs in Kenya. Simulation will play a major role in solidifying and operationalizing information taught in lectures. This simulation session pilot helped to clarify our teaching objectives and competencies for the KEMCCC. We hope that diversified education in this vein further cements core medical principles among the students involved in Alabama, and ultimately is effective education for the target residency audience in rural Kenya.

In Situ AIDET Simulations

Erin Blanchard, MSN, RN, CPAN



The Office of Interprofessional Simulation (OIPS) partnered with the Heart and Vascular Center (HVC) leadership to offer in situ AIDET simulations to the HVC staff. A communication tool developed by the Studor Group, AIDET is an acronym for Acknowledge, Introduce, Duration, Explanation, and Thank You. Over 70 HVC staff members took part in the training which consisted of nurses, patient care technicians, unit secretaries, and radiology and electrophysiology technicians. Participants interacted in small groups with a simulated patient and family member using AIDET. The simulation itself took place in the pre-procedural

area of HVC in the North Pavilion. Participants were presented with a simulated patient awaiting one of the procedures commonly occurring within HVC.

Following the interaction, participants took place in a brief, bedside debriefing where they discussed their use of AIDET and general communication with the simulated patient and family member. Learners commented that they "liked the hands on experience" and thought it was "nice to be observed and given feedback" regarding patient interactions.

As AIDET is used hospital-wide, OIPS looks forward to hopefully continuing to partner with additional hospital departments to expand AIDET in situ training and help staff members practice incorporating this communication technique it into their patient interactions.

References Studer Group (n.d.). AIDET patient communication. Retrieved from https://www.studergroup.com/aidet

Nurse Anesthesia Simulations

Susan McMullan, PhD, CRNA

Senior Nurse Anesthesia students recently completed two sessions of simulation in the Center for Patient Safety and Advanced Medical Simulation (Quarterback Tower Sim Lab). Senior Nurse Anesthesia students receive a patient scenario based on an array of conditions and must work through the scenario to develop and implement an appropriate anesthetic plan. The seniors have completed 5 out of 6 Core Competency Senior simulations to date. The August session focused on care of the Emergency/Trauma Patient, and incorporated a variety of conditions. As the "patient" status changes, the students are expected to



continue to recognize and treat conditions as necessary using evidence-based interventions. Following the simulation, groups debriefed on the scenario and had a discussion of the care they provided for the patient.

Continuous Renal Replacement Therapy Academy

Ashita Tolwani, MD



The 11th annual UAB CRRT Academy took place on August 17 and 18, 2016. Continuous Renal Replacement Therapy (CRRT) is a specific type of dialysis used to support critically ill patients with acute kidney injury and involves the collaboration of multidisciplinary teams composed of nephrology and critical care physicians, nurses, and pharmacists. It is considered a low volume / high risk procedure with potential for serious complications if theory and practice skills are not retained. The objective of CRRT Academy is to allow medical professionals (RN, MD, pharmacy) to practice key management strategies using hands-on

workshops and simulation. This year we had 67 participants from as far as New Jersey, Arizona, and Wisconsin. After a day of didactic content and case studies, participants spent the second day in a series of multi-disciplinary mini-breakout stations in the UAB Simulation Center and acquired working knowledge of the CRRT machine, developed skills in troubleshooting machine alarms, and improved aptitude in caring for CRRT patients using interactive scenarios. The Academy culminated with a high fidelity simulation using expertise from the UAB Office of Interprofessional Simulation. The CRRT simulation utilized a high fidelity "medi-man" in a critical care environment complete with multi-practitioner based collaborative teams, a family member, a ventilator, CRRT machine, and IV infusions. With simulations centered on common CRRT related medication errors, the debriefing explored the complex topics of error disclosure and interpretation of CRRT lab abnormalities. Preliminary feedback from the participants has been outstanding.

4th Cohort of Simulationists Receive Advanced Training at UAB

Dawn Taylor Peterson, PhD

UAB hosted the 4th cohort of the Institute for Medical Simulation: Simulation as a Teaching Tool (IMS@UAB) course August 9-12. IMS@UAB is taught by faculty from the Center for Medical Simulation (CMS) which is located in Boston, Massachusetts. The content for the course draws from the disciplines of



aviation, healthcare, psychology, experiential learning, and organizational behavior. Participants explore simulation-based teaching methods applicable across the healthcare education spectrum, including undergraduate and graduate medical, nursing and allied health domains. Participants in the August course came from the schools of nursing, health professions, medicine, dentistry, and the College of Arts and Sciences. Health system providers from nursing, critical care, pediatrics, emergency medicine, trauma, family medicine, peri-operative care, gynecology / oncology, and internal medicine also attended the course. Course participants were selected by OIPS in collaboration with participant stakeholders in order to provide a broad representation of newly trained simulationists. Over the past 3 years, IMS@UAB has trained a total of 84 faculty and staff who contribute to quality simulation experiences making UAB an international leader in the area of interprofessional facilitator development for simulation.

RN Residency Workshop Simulations

India Alford, MSN, RN, NE-BC

Integrating simulation into new nurse on-boarding programs has been shown to be highly effective. At UAB the Center for Nursing Excellence's RN residency program has been partnering with OIPS to deliver simulations in sessions #1, 2, 3, and 5 of this program. Session 5 demonstrated focuses on deteriorating and septic patients. The participants have been overwhelmingly positive about the experiences. ANCs who have been leaders in these simulations include:



Carolyn Curry, Ja-Lin Chen, Gerick Marshall, Amanda Griffin, and India Alford. We look forward to continued partnerships to support new clinical practitioners.

Engineering Project Lab

Brandon Smith, Clinical Simulation Specialist



The Office of Interprofessional Simulation has continued our unique relationship with the School of Engineering's Student Project Lab during the fall and summer semesters this year. The purpose of the Student Project Lab is to allow engineering students the opportunity to gain hands-on product development experience and produce a usable product for the client. The two projects students worked on included the central venous line (CVL) trainer and the seizure simulator.

Students participating in the CVL trainer included Vaishali Nijampatnam, Welles Richardson and Devin

Bonner. The goal of this project was to develop an ultrasound phantom with tissue mimicking materials and vessels to be used as a training tool for vascular access procedures. The students were ultimately able to produce a working ultrasound training block.

Students participating in the seizure simulator included Clark Landers and Roosevelt Pierre Noel. The goal was to create a device that will accurately simulate seizure symptoms on a manikin for the training of multiple health care professions. After several design iterations, the students developed a motorized seizure simulator that externally attached to the mannequin, producing visible vibrations.

The faculty in the School of Engineering helping to make this partnership possible include: Timothy Wick, Ph.D. - Program Director, Bob Hergenrother, Ph.D. - Assistant Program Director and Desland Robinson - Professional Development Director.

Embedded Simulation Person Workshop

April Belle, MSN, RN

The embedded simulation person (ESP) is an essential part of most simulations. This term, ESP, is used to describe someone who is a facilitator of learning during a simulation experience. The ESP often acts as a family member, healthcare provider, consultant, or a helper in the room.

Typically encountered during an immersive simulation, the ESP helps bridge the gap between simulation and realism. Often times there are questions about the patient's history or physical assessment that are challenging to interpret from the simulated environment.



In these instances, the ESP provides necessary information for learners to progress through a scenario. The ESP also supports learners with the operation of equipment or locating other resources such as supplies and diagnostic results.

The ESP Workshop is a course offered by the Office of Interprofessional Simulation for Innovative Clinical Practice (OIPS) and supports the mission of facilitator development for the UAB entity. This workshop is designed to introduce learners to the concepts and principles that provide a general understanding of the ESP role in a variety of simulations. The course offers a didactic presentation, video reviews, and small group exercises to demonstrate the role of the ESP as a facilitator of learning to ensure successful simulations. Learners are encouraged to observe additional simulations and practice with an experienced ESP to become more familiar with the role.

Please visit the OIPS website if you are interested in registering for this course: <u>http://www.uab.edu/simulation/development-opportunities</u>

OIPS Team Members Attend TeamSTEPPS® Master Training

Brad Bertke, Program Coordinator



Effective communication is one of the most valuable resources that a high functioning team can possess. Consistently achieving effective communication is not always an easy task, especially in the highly diverse field of healthcare. Recognizing this, OIPS has adopted the skills and techniques from TeamSTEPPS (Team Strategies and Tools to Enhance Performance and Patient Safety) to better serve UAB. TeamSTEPPS, a joint effort by The Agency for Healthcare Research and Quality (AHRQ) and the Department of Defense, is a curriculum designed to enhance communication and teamwork skills among healthcare professionals in order to improve quality, safety, and efficiency of healthcare. Erin Blanchard, Tyler Burks, and Brad Bertke visited the University of Minneapolis in late July to attend a TeamSTEPPS 2.0 Master Training course. This two day course featured lectures on situation monitoring, communication techniques such as handoffs and call-outs, and mutual support tools. In addition to learning about each tool/strategy, participants are taught how to implement TeamSTEPPS within their own organizations. Teamwork and communication are already common learning objectives highlighted in our simulations, which is one method we use to spread these valuable skills across the institution. In total, OIPS now has nine TeamSTEPPS Master Trainers. To learn more about TeamSTEPPS, please visit www.ahrq.gov.

OIPS Team Member Highlight - Shilpa Register & Carmel McNicholas-Bevensee

Shilpa Register joined the Office of Interprofessional Simulation as Director of Research on August 1, 2016. Birmingham is Shilpa's hometown, and her first home was the University of Alabama at Birmingham family student housing, which is now the Campus Green and the Campus Recreation Center. Shilpa holds a PhD in Educational Policy and Leadership from Ohio State University and a Doctor of Optometry and Master of Science degree from UAB. She is also a Clinical Assistant Professor in the UAB School of Medicine, Department of Ophthalmology. In 2016, she received a Certificate in Non-Profit Management from Harvard



Extension School and a Certificate in Health Disparities Research from UAB School of Medicine. Shilpa is a Distinguished Scholar and Fellow of the National Academies of Practice and a Fellow of the American Academy of Optometry. She serves on the Board of Directors for the UAB National Alumni Society and the Boys and Girls Clubs of Central Alabama. Shilpa has 12 years of procedural simulation experience. She and her husband, Scott, have two sons, William (age 14) and Ketan (age 12). Her interests include acrylic painting, ping pong with her children, and relaxing on the back porch. Shilpa's favorite is chocolate or anything caffeinated. Shilpa can be found on Facebook, LinkedIn, and Instagram, and she hopes to go to Europe again for her next vacation.



Carmel McNicholas-Bevensee will join the Office of Interprofessional Simulation as a Simulation Educator on October 1, 2016. She is originally from Manchester, England. Carmel attended Manchester Unviversity, England where she earned her BSc (HON) in Physiology in 1989 and then her PhD in Physiology in 1992. She continued her postdoctoral training at Yale University from 1992-1998 and worked in Cardiovascular Drug Discovery at Bristol-Myers Squibb from 1998-2000. Carmel is presently an Assistant Professor teaching physiology at UAB and her research focuses on electrophysiology with an interest in channel

regulation. Her current research focus is cystic fibrosis. She has four years of simulation experience and was a participant of the Institute for Medical Simulation course at UAB in December, 2013. Carmel has two children, Clare (age 14) and Sean (age 12). She enjoys spending her free time by being involved in her children's activities, and she enjoys sewing, as well. Carmel's favorite food is sushi, and her latest reads have been books from the "Girl with the Dragon Tattoo" series. Carmel can be found on Facebook, and she hopes her next vacation will be to England.

Important Dates

September 12, 2016

SimShare Educator Lunch

September 12, 2016	SimTech
September 13, 2016	DASH© S
September 20, 2016	OIPS Hos
September 20, 2016	<u>SimConn</u>
October 7, 2016	<u>Lifetime o</u> <u>Sponsore</u>
October 8, 2016	MOCA Co
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In Series - Healthcare

For Facilitator Development Opportunities visit https://www.uab.edu/simulation/development-opportunities



Top Rows (left to right):Marjorie Lee White (Director), Charlie Prince (Director of Operations), Brandon Smith (Clinical Simulation Specialist), April Belle (Director of In Situ Simulations), Brian Mezzell (Program Administrator II), Lisa Bagby (Director of Procedural Simulations), Brad Bertke (Program Coordinator I), Kelly Markham (Administrative Associate), David Mathews (Clinical Simulation Equipment Technician), Betty Farley (Program Director III)

Seated (left to right): Tyler Burks (Clinical Simulation Specialist), Shilpa Register (Director of Research), Dawn Taylor Peterson (Director, Faculty Development & Training), Erin Blanchard (Simulation Educator Senior), Andres Viles (Simulation Coordinator Senior),

For more information, please visit us on the web at <u>http://www.uab.edu/simulation</u>

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