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Director's Corner

Marjorie Lee White, MD,
MPPM, MA

April saw continued activity in Quarterback Tower and Volker Hall Simulation Sandbox. We had activity directed towards all of our FY16 goals, which include training faculty in simulation methodology, developing

Prep for Residency Simulations

Jordan DeMoss, MHSA & Christy Lemack, PhD

additional courses to meet health system and university needs, and expanding the simulation community of practice and level of expertise.

Some additional highlights include those outlined in this newsletter and continued work in research -- working on developing our NEXUS project, partnering with the Center for Educational Accountability to develop a tool. Other activity includes UAB patient safety in situ simulation follow-up work and pilots for new first five and code team training.

Please let us know if you'd like to partner with us, and check us out on www.uab.edu/simulation.

During the second week of April, students in the School of Health Profession's Master of Science in Health Administration (MSHA) and



students in the School of Medicine participated in joint simulations focused on difficult patient situations during the Preparation for Residency course. Faculty and staff collaborated to ensure that clinical and behavioral objectives were met and that students had an opportunity to work together in improving the future care they will provide to patients and families. Simulation cases included topics such as medication error, informed consent, impaired providers, and mistrust of the clinical team. Students from both professions rated the experiences highly and enjoyed the opportunity to learn from one another. Jordan DeMoss, MSHA, Christy Harris Lemak, PhD, and Amy Yarbrough Landry, PhD served as content experts for the MSHA program. School of Medicine faculty for the MSHA/MD sessions were Kevin Leon, MD and Chrystal Rutledge, MD.

Recent Announcements

***Dawn Taylor Peterson was awarded a UAB Faculty Development Grant for "Healthcare Simulation: Development of a Large Scale Interprofessional Simulation Focused on the Social Determinants of Health."**

First UAB MOCA Simulation Course a Success

Jeff Simmons, MD

The UAB Department of Anesthesiology and Perioperative Medicine and the Office of Interprofessional Simulation conducted its first Maintenance of Certification in Anesthesiology (MOCA) High Fidelity Simulation Course on April 16, 2016. Anesthesiologists attended the course from Alabama, Georgia, and Mississippi. The course featured eight high-fidelity simulations, giving each physician the chance to be a primary participant in one scenario and a backup physician in a second. When not acting as a primary or backup, physicians could view the simulation via a live video feed.



UAB became a certified American Society of Anesthesiology Simulation Center in December 2015 and remains the only site in Alabama, Georgia, Mississippi, Arkansas, or Louisiana to offer this course. The MOCA Simulation course satisfies Part IV of the re-certification process for eligible anesthesiologists.

The next UAB MOCA Simulation is July 9, 2106. Information can be obtained from <http://www.uab.edu/simulation/moca>. The website offers course dates, agendas, contact information, and online registration. Each course will have a maximum of eight participants and runs from 8 AM to 5 PM on Saturday.

Clinical Application & Simulation

Chad Epps, MD



The Master of Science in Biomedical and Health Sciences (BHS) Program enhances value for admission into medical, dental, optometry, physician assistant, physical therapy, occupational therapy or other health science professional school. In less than one year, students complete the master's program which is the only one of its kind in the Southeast. The capstone course (BHS 610, Clinical Application and Simulation) is intended to provoke critical thinking about

the effects of disease and to integrate content gained in the entire program. Through simulation-based interactions, students are given the opportunity to apply their basic science knowledge to clinical situations in a safe learning environment. Spring 2016 was the first offering of this class as the first cohort of BHS students come to an end of their period of study. Students were exposed to cardiac, respiratory, endocrine, and neuro cases and also participated in a rapid-cycle deliberate practice exercise around basic cardiopulmonary resuscitation.

Geriatric Scholar Simulations

The Geriatric Scholar Program at UAB is an interprofessional program that educates staff on evidence-based geriatric care. In order to improve their knowledge and skills related to providing geriatric care, Geriatric Scholars received education through various means including lectures, self-learning, clinical rotations, and simulations. Since 2009, the Geriatric Scholar program has had participants from multiple disciplines including RNs, PCTs, nurse practitioners, social work, case management, pharmacy, therapy (physical, speech, occupational, respiratory, art), and dietitians.



During the months of April and May, Geriatric Scholars participate in a 4 hour simulation session that focuses on building knowledge and skills related to geriatric assessment, communication, and plan of care. The scholars in the interprofessional program participate in 4 simulations on the following topics: function and mobility, delirium, care transitions, and polypharmacy. During the simulations, the scholars are paired with those from different disciplines so they are not only learning about geriatric care, but also about the various skill sets of each discipline. Standardized patient and caregivers are utilized for the simulations so the scholars can practice their communication and interpersonal skills.

The Geriatric Scholars enjoy participating in the Geriatric Simulations. The simulations provide them with the opportunity to take what they have been learning over the last 6 months and practice it in a safe environment. The simulations allow the scholars to not only improve their skills related to assessing, creating a plan of care, and communicating with patients and their caregivers, but also to better appreciate the importance of working with an interprofessional team.

High Acuity Simulations

Summer Langston, DNP, CRNP, ACNP-BC, AACC



On April 4-7, the UAB School of Nursing partnered with the School of Medicine and OIPS to facilitate a week of high acuity simulations for fourth semester nursing students. High fidelity simulations of deteriorating patient statuses and cardiopulmonary arrest were developed and implemented to allow students to care for high acuity patients in an emergent situation. Nursing students were divided into care teams and assigned to work with a variety of other healthcare

team members including respiratory therapists, nurse practitioners, medical students, physicians, and nurse anesthesia students.

Nursing students had been previously instructed on current AHA ACLS guidelines utilizing rapid cycle deliberate practice in their skills lab. This week of immersive simulation gave them the opportunity to put these newly learned skills into practice and work with a multidisciplinary team. Student feedback in regards to the event was positive and reflective of knowledge and

New Simulation Graduate Elective

Dawn Taylor Peterson, PhD

The School of Health Professions is now offering a graduate level elective in simulation. HRP 575 Introduction to Healthcare Simulation for Quality and Safety is 1-2 credit hour course which focuses on the use of simulation-based training and systems for improving patient safety and quality. The course includes a combination of didactics, team-based assignments, and hands-on simulations. Students enrolled in the course explore immersive, procedural, and in situ simulation modalities for the purpose of improving systems and processes within the healthcare setting. The Spring 2016 course was taught by Marjorie Lee White, MD, MPPM, MA, Dawn Taylor Peterson, PhD, Penni Watts, PhD, RN, and Chad Epps, MD. Other OIPS personnel served as guest lectures including April Belle RN, Lisa Bagby RN and Charles Prince. Final projects for the semester included the use of simulation to explore protocols for patients with neutropenic fever, the process of creating a procedural training checklist, and improving the first five minutes of a code.



UAB Highlands HeartCode® Simulation Room

India Alford, MSN, RN NE-BC



Walking into the pain clinic entrance on the 3rd floor of Highlands Hospital leads you directly into the brand new Highlands HeartCode Simulation room. This simulation room is designed specifically for the new evidence based HeartCode Basic Life Support (BLS) and Advanced Cardiac Life Support (ACLS) classes.

HeartCode is a program that allows students to complete computer simulation modules to show competency for knowledge. Students next have the opportunity to be validated by coming into the simulation room and performing compressions and ventilations on both the adult and infant manikin. These manikins are able to measure to 1/16 of an inch in regard to depth ensuring that students are given feedback on their performance. Students hear responses from "good job" to "increase rate." These responses allow the student to actively adjust and encourage muscle memory for performing the correct rate and depth for chest compressions and adjusting ventilations. This program is a great example of a commitment to excellence and incorporating simulation into all types of education here at UAB.

Science & Technology Honors Program Sim Experience

Finn Perkins, MD

OIPS invited students from the Science and Technology Honors Program to come an experience simulation and look behind the scenes at Volker Hall during April. The students were introduced to what medical simulation is and how we produce a successful simulation. The students' backgrounds ranged from microbiology to engineering but with a common interest in medical research. We looked at how the manikins recreate physical exam findings and can be treated in a similar fashion as real patients. The introduction to simulation was capped off with an opportunity for students to perform chest compressions, defibrillation, and intubations.



Vimedix Ob/Gyn Ultrasound Simulator

Sheri Jenkins, MD



Thanks to an HSF-GEF grant, we were able to purchase a Vimedix Ob/Gyn Ultrasound Simulator. It is currently housed in the Office of Interprofessional Simulation in JT230. It provides realistic training opportunities in second trimester sonography for all specialties needing to learn obstetric ultrasound, such as Ob/Gyn, Radiology, and Emergency Medicine. The unit contains a manikin, a curvilinear probe, and a computer/monitor. The monitor can show a split screen of the sonographic image and also an augmented reality display that includes interactive, animated 3D depictions of anatomic structures and abnormalities. Medical students can learn how to hold and maneuver the probe as well as learn basic principles of sonographic imaging. Residents can learn how to perform basic fetal anatomy and biometry and how to measure amniotic fluid volume and determine fetal presentation. Fellows can use it to train in performance of detailed fetal anatomic surveys as well as how to evaluate and counsel patients regarding specific fetal malformations. The simulator has self-directed instructional content and validated performance metrics that can be used to assess competency. We are hopeful in the future to be able to add the training module for first trimester obstetric ultrasound and its pathologies. This Vimedix Ob/Gyn Ultrasound Simulator will be a wonderful tool for enhancement of obstetric ultrasound training at UAB.

Moulage for Clinical Simulation

David Mathews, Clinical Simulation Equipment Tech

Manikins aren't always enough. Some learners find the technology and gadgets cool, while others express concerns related to the lack of scenario realism compared to the clinical setting. Convincing participants in a clinical simulation to perform as if it were real is difficult. In simulation, the quality or state of being faithful and accurate in detail is referred to as fidelity.



The term moulage is a term of art and is derived from the French verb "mouler," which means "to mold" or "to imprint," a technique which has been used to replicate objects as early as the Bronze Age.

We use moulage methods to create wounds, provide clues and create environments in a simulated setting to add realism and increase fidelity. Subtlety is essential. We do not want to scare the learners with something overly grotesque or over the top, as this can take away from the experience. Using moulage correctly and efficiently is a way to add higher fidelity without higher costs. It promotes sensory engagement and aids in the suspension of disbelief in order to bridge the gap between a clinical case and a simulation.

With patient simulation, the medium is a collage of the clinical scenario, the simulation theater, the mannequin, props, and also the human elements. ~Clinical Simulation by Richard R. Kyle.

OIPS Team Member Highlight - David Mathews



David Mathews is a Clinical Simulation Equipment Technician for the Office of Interprofessional Simulation. David joined the office last November and oversees the preparation and maintenance of simulation equipment and materials. He also helps increase the fidelity of simulations by moulaging the manikins and trainers. David is originally from Adger, Alabama, which is about 25 miles southwest of Birmingham. He attended UAB, where he earned his

degree in Fine Arts/Studio Journalism. Before joining the office, he worked for 20 years in outdoor advertising where he helped maintain neon on several landmarks around Birmingham such as Vulcan, the Alabama Theatre, the City Federal Building, and the WBRC sign atop Red Mountain. He is married to Jessica, and they are parents of a seven year old boy, Dylan. David enjoys photography, abstract watercolors, hiking and camping. His favorite foods are seafood and steak, and his next vacation will be to Savannah, Georgia for his 10 year anniversary. The last book David read was "Of Time and the River" by Thomas Wolfe. David can be found on

Upcoming Events

May 4, 2016	<u>Facilitating Interprofessional Debriefing</u>
May 10, 2016	<u>Sim 2</u>
May 13, 2016	<u>SimConnect</u>
May 17, 2016	<u>Sim 1</u>
May 26, 2016	<u>DASH© Series</u>
May 31, 2016	<u>Sim 2</u>

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



Top Rows (left to right): Tyler Burks (Clinical Simulation Specialist), Jarrod Young (Clinical Simulation Specialist), Betty Farley (Program Director III), Marjorie Lee White (Director), Brian Mezzell (Program Administrator II), Erin Blanchard (Simulation Educator Senior), Chad Epps (Associate Director), Kelly Markham (Administrative Associate), David Mathews (Clinical Simulation Equipment Technician),

Seated (left to right): April Belle (Simulation Coordinator Senior), Lisa Bagby (Simulation Coordinator Senior), Dawn Taylor Peterson (Director, Faculty Development & Training), Jabril Cooper (Clinical Simulation Specialist), Charlie Prince (Program Director II)

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

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