

UNIVERSITY OF GEORGIA

Jaghan Jaghan Jaghan

# Simulation Center Annual Report 2020-2021

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### **Guiding Principles**

The mission of the AU/UGA Medical Partnership Simulation Center is to promote excellence in patient care by working collaboratively with all educational stakeholders and learners to offer safe, realistic, team-centered, interactive educational experiences utilizing the latest technology to nurture growth and development of clinical proficiency.

## **Learning Environment**

We envision the Simulation Center as being an integral component of experiential learning in promoting safe and proficient healthcare along the continuum of professional training and practice.

## Introduction

The newly constructed/renovated AU/UGA Simulation Center opened its doors in September 2019 and became fully operational in Jan 2020. The new space occupies 2500 square feet of the second floor of Russell Hall on the Health Sciences Campus and contains five patient bays, a multifunctional skills lab, a control room and a debriefing space. Our activities include procedural skills training, manikin simulation, and ultrasound training, as well as faculty and staff training events.

#### **Simulation Center Team Members:**

Director: Aimee Martin, MD, CHSE Coordinator: Sarah Gibbs, MS Educator/Clinical Instructor: Len DeRamus, PA-C IT Professional Associate: Adam Evans, MS Medical Illustrator & Graphic Designer: Jennifer Stowe, MS Ultrasound Consultant: Tish Poe, BA, RDCS, RVT, FSVU UGA student workers: Farran Smith and Kyra Chism

# Participating Faculty in Pre-Clerkship Activities

#### Simulation

#### AU/UGA Medical Partnership

Amy Baldwin, PhD Casey Bassett, PhD Matt Boegehold, PhD Tim Brown, PharmD Tresa Chappell, MD Thom Gaddy, PhD Tom Howdieshell, MD Carrie Kelly, MD John Norris, MD Jaya Pamidimukkala, PhD Mike Russell, PhD Don Scott, MD Scarlett Schneider, MD Clive Slaughter, PhD Toby Tally, MD

#### **UGA School of Pharmacy**

Trisha Branan, PharmD Gin Fleming, PharmD William Huang, PharmD Blake Johnson, PharmD Devin Lavender, PharmD Morgan Moulton, PharmD Beth Phillips, PharmD Susan Smith, PharmD Robin Southwood, PharmD Rebecca Stone, PharmD

#### Ultrasound

AU/UGA Medical Partnership Nick Fox, MD DeLoris Hesse, PhD Tom Howdieshell, MD Brett Szymik, PhD Toby Tally, MD Ariel VanLeuven, PhD

#### **Procedural Skills**

#### AU/UGA Medical Partnership

Andy Albritton, MD Jo Albritton, MD Molly Bond, MD Tresa Chappell, MD Mark Ellison, MD Tom Howdieshell, MD Jon Marti, MD John Norris, MD Don Scott, MD Toby Tally, MD

## Participating Faculty in Clerkship Activities

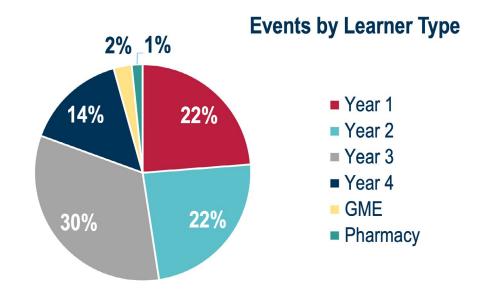
Tresa Chappell, MD Carrie Kelly, MD Tom Howdieshell, MD Jon Marti, MD Julie Martin, MD Lina Milan, MD Toby Tally, MD

# **Visiting Clinical Faculty**

Thomas Aiken, MD-Ultrasound Brian Brewer, MD-Ultrasound Cristina Elstad, MD-Ultrasound Jack McCormack, CRT-Procedural Skills Matt Robinson, RN-Procedural Skills Josh Rothstein, MD-Ultrasound Alka Sardar, RDNS-Ultrasound

## **Metrics**

During the academic year 2021 (July 1 2020-June 30, 2021) the Simulation Center hosted 196 educational events with 1,972 students (not discrete).



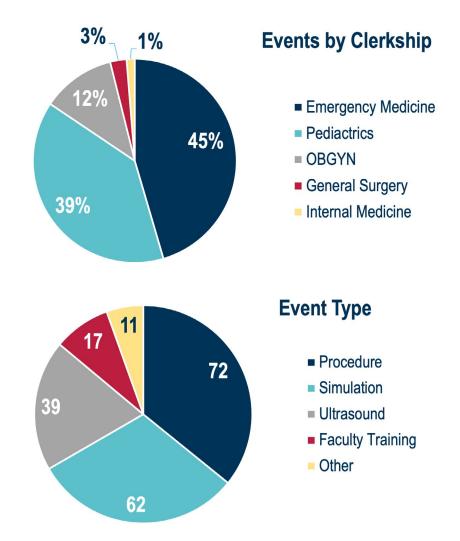


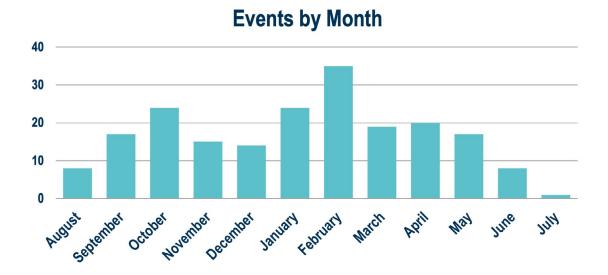






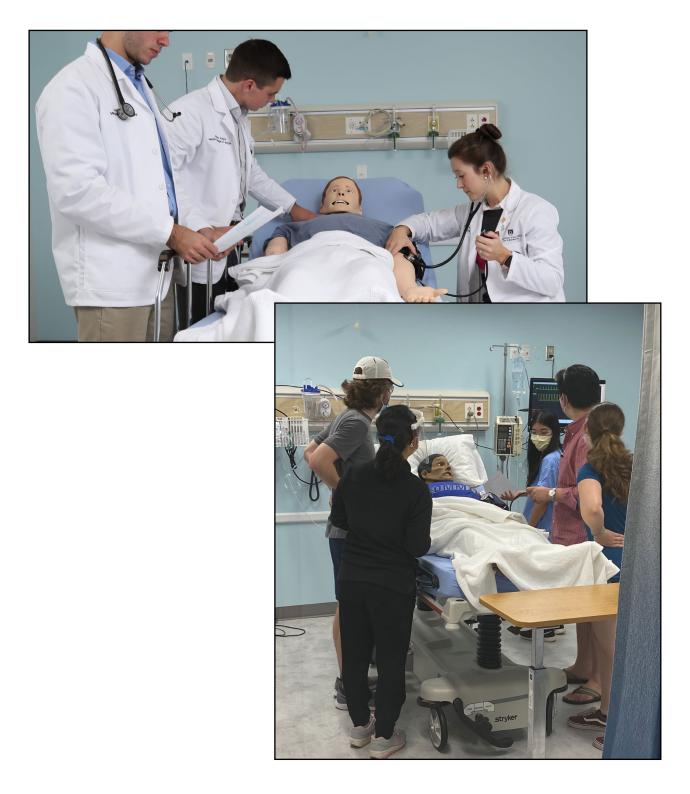
# Metrics, continued.





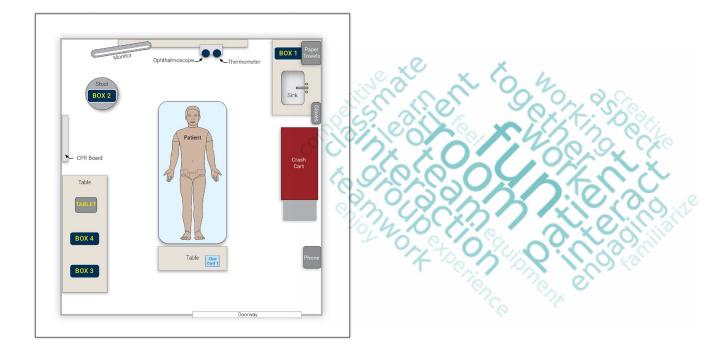
### **Program Milestones**

First large scale simulation exercise occurred on Jan 16, 2020 for 42 Year 2 students. Five patient bays were run simultaneously, with a 4-student team in each bay. This activity focused on rapid patient assessment, pharmacology and pathophysiology, and healthcare teamwork.



#### Program Milestones, continued.

First Year 1 simulation exercise occurred on Sept 2, 2020. This was an escape room designed to orient the students to the simulation environment and the patient manikins.





# Program Accomplishments/Course Highlights Simulation:

- Year 1 students participate in three simulation activities over the course of the year.
- Year 2 students participate in six simulation activities over the course of the year.
- Three Interprofessional Simulations with introduction of 3rd year pharmacy students into teams of 2nd year medical students.
- Pediatric Clerkship students participate in weekly simulations over the six-week block.
- General Surgery clerkship participate in one simulation per block.

#### **Procedural Skills:**

- Year 1 and Year 2 students attend Procedural Skills sessions throughout the first two years.
- Skills taught include Phlebotomy, Injections, IV Placement, Airway Management/BVM use, NGT Placement, Local Anesthesia, EKG lead placement, Sterile Gloving, and Urethral Catheter Placement.

#### **Ultrasound:**

- Year 1 students attend five ultrasound workshops over the course of the year.
- Year 2 students attend five ultrasound workshops over the course of the year.
- A standardized patient encounter requiring Year 2 students to perform a cardiac ultrasound as a part of their patient encounter was developed in collaboration with the CS and SP programs.
- Standardized patients have been incorporated into ultrasound workshops as ultrasound models.

## Faculty Training:

- A training course, Using Simulation in Medical Education, was provided to faculty in collaboration with AU simulation faculty.
- Faculty training in ultrasound is provided prior to each ultrasound workshop.

## **COVID Impact**

- Adjusted operating procedures to include altered entry and exit flow, required screening, PPE and cleaning procedures.
- Maintained in-person events when possible with required PPE.
- Pivoted to virtual events (Pediatric Clerkship simulations and two procedural skills sessions) when required.
- Assisted Clinical Skills and Community and Population Health programs with training of students and faculty in COVID immunization procedures.
- Assisted Clinical Skills program with hybrid Standardized Patient encounters.
- During the summer of 2020, due to canceled in-person events, a hybrid system was developed to continue to provide Year 3 Pediatric Clerkship simulations. This involved hosting remote learners over Zoom interacting with in-person instructors in the simulation bay.
- Added sessions to reduce the number of participants in a room at a time.
- Created another control room for large scale simulations to allow faculty to remain distanced.

## **Publications & Presentations**

- St. Mary's Grand Rounds-Using Simulation in Medical Education, March 25, 2021, presented by Dr. Aimee Martin
- IAMSE Poster and Oral Presentations:
  - Martin AT, Gibbs S, Bassett C, Gaines JK, Boegehold M. Using an escape room activity to orient learners to the simulated medical environment. Oral presentation at: International Association of Medical Science Educators (IAMSE) Annual Meeting; June 15-20, 2021; Virtual Conference.
  - Bassett C, Martin AT, Gibbs S, Boegehold M, Gaines JK. Collaboration among basic science and clinician educators in creating and implementing high fidelity sessions in an integrated preclinical medical education curriculum. Poster presentation at: International Association of Medical Science Educators (IAMSE) Annual Meeting; June 15-20, 2021; Virtual Conference.
- MedEdPortal submission in revision:
  - 1. Martin AT, Gibbs S. An Escape Room to Orient Preclinical Medical Students to the Simulated Medical Environment. Submitted to MedEdPORTAL Publications, Mar 2021.

## Student Feedback: Years 1 & 2 Simulation Center Activities Year 1 Head Injury Simulation Student Feedback:



#### What did you like most about this activity?

- Ability to practice working as a team and see medicine in a clinical setting."
- Actual experience of working with our teammates and learning about how to collaborate in a medical situation."
- Getting a feel for the physician role in a setting with a critically ill patient, orienting myself to the resources available (the nurse & patient chart), and learning to work with my team members."
- I appreciated the realism of the simulation and the opportunity to attempt to practice medical teamwork."
- I learned to use helpful clinical guidelines."
- I liked that I was able to practice my decision making skills and practice some of the skills I learned during clinical skills."
- I liked that we had experience with a patient even of it was simulated and the debriefing really helped hammer in the important concepts we needed to take away from this case."
- I liked the immersion and enjoyed it very much!"
- I liked the level of independence and self-reliance it required."
- I loved that we were able to learn how to handle a situation in the ER and learn to work as a team."

## Student Feedback: Years 1 & 2 Simulation Center Activities Year 2 Simulation Curriculum Student Feedback:

#### I am more confident in communicating with my patient. I am more confident in my ability to identify appropriate bedside resources to guide my clinical decision making. I am more confident in my clinical decision making skills. This exercise gave me the opportunity to practice using bedside resources to guide my clinical decision making. Debriefing was valuable in helping me improve my clinical judgement. I am more confident in using effective forms of communication, such as closed-loop, clear messages,. The simulated patient cases helped to clarify or reinforce pharmacology concepts. The simulated patient cases helped to clarify or reinforce pathophysiology concepts. I am more confident in my ability to prioritize care and interventions. I am more confident in my ability to perform a rapid evaluation of an acutely ill patient. Debriefing contributed to my overall learning. Small group debriefing with clinical and foundational science faculty was helpful in reinforcing main concepts. I am more confident in my ability to work as a member of a health care team. Overall, the quality of the simulation exercises was high. Working with the pharmacy students was helpful to my understanding of interprofessional teamwork. 3.8 4.0 4.2 4.4 4.6 4.8 5.0 Scored, on a scale of 0 (unable to assess) - 5 (strongly agree)

#### **Exercise Feedback Scores**

#### **Overall Exercise Feedback Rating:**



## Year 2 Simulation Curriculum Student Feedback:

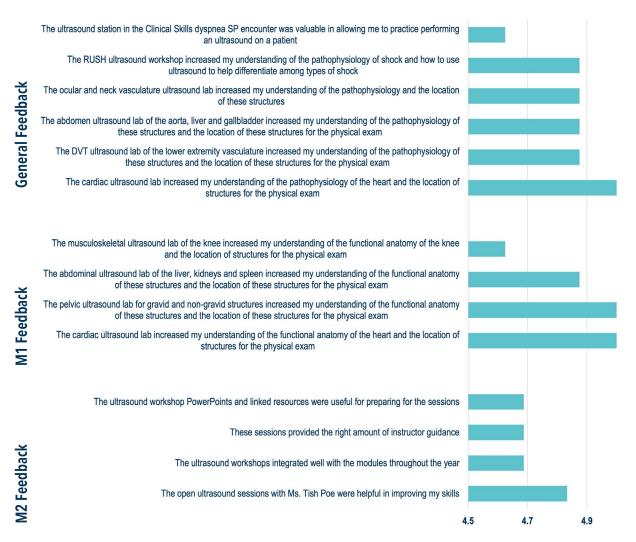
#### What did you like most about the simulated patient cases?

- I liked that we were able to build our own confidence in our knowledge without a real person being at risk. We've learned a lot in first and second year and we're on our way to being competent physicians, and I think that simulation allowed us to recognize how much progress we've made and how capable we are."
- I really enjoyed simulation cases M2 year. It was a good opportunity to work on teamwork, interdisclipinary work, and decision making in acute situations."
- I really enjoyed working with the pharmacy students and learning how to work in a team. It took our knowledge from the IPEs a step further and allowed us to practice it."
- Provides a different angle on what we learn in our courses and allows us to start figuring out what it means to apply that knowledge. They're really excellent."

#### Do you have any suggestions for improving the simulation curriculum?

- I think they're great. There should be more, and they should be more fully integrated with the curriculum. That is to say, they're already well-integrated, but they should become something of a centerpiece for every two or three weeks of a module."
- More frequent sims so that we can become more accustomed to responding to urgent matters."
- \* Not currently, I felt the simulations were planned well and am glad that they will now be a larger part of M1 curriculum."
- They're awesome! Thanks to everyone who helps to put them together and make them happen I know it takes a lot of work and planning!"

### **Ultrasound Curriculum Student Feedback:**



#### **Overall Exercise Feedback Rating:**



SCORE	
Unable to assess	0
Strongly Disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly Agree	5

#### **Ultrasound Curriculum Student Feedback:**

#### What did you like most about the ultrasound workshops?

- The hands-on experience and the opportunity to use real devices."
- " I think they're extremely helpful in helping to contextualize some of the pathologies we're learning."
- I liked the low-pressure environment, especially when we were ultrasounding each other. It seems that confidence with the ultrasound comes from practice, so having this time to practice without pressure was essential."