

Miller School Expands Reach of Global Training Programs through Virtual Training and Education

By taking an innovative approach to dealing with the COVID-19 pandemic, the International Medicine Institute at the University of Miami Miller School of Medicine is offering virtual education and training in a growing number of clinical specialties to medical professionals around the world.



Eduardo de Marchena, M.D., right, and program participants in Miami discuss a patient's case with observers in Colombia, India and Peru.

“We are using advanced interactive video and audio technology to expand the global reach and impact of our clinical

training,” said Eduardo J. de Marchena, M.D., professor of medicine and surgery, associate dean for International Medicine, director of Interventional Cardiology, program director of the International Structural Heart Interventional Training Program, and director of the Miami Valves conference.

“Our virtual program allows physicians and medical students to see patients with our faculty on clinical rounds without the limits imposed by an in-person encounter,” Dr. de Marchena said. “The virtual sessions are highly interactive, as the participants can ask questions, view medical records and talk directly with patients in a clinical setting. We have gotten wonderful feedback from our students, who appreciate the opportunity to continue their medical education through state-of-the-art distance learning,”

Through the William J. Harrington Medical Training Program and the Global Observership Program, the International Medicine Institute (IMI) offers one- to three-month rotations to observe the activities of a particular department, division, center or institute. The Harrington program, founded in 1967, and the Global Observership Program, which began in 1975, have trained more than 10,000 medical professionals all over the world. The inception of virtual rounds enabled the continuation of this medical education tradition in the COVID-19 era.

Shifting to virtual training

This spring, the COVID-19 public health threat caused a shift to online learning throughout the Miller School. Drawing on assistance from UM technology and biomedical professionals, the IMI team was able to change gears and develop a first-of-

its-kind clinical training program.

“With COVID-19 we had to reinvent the way we do medical education,” Dr. de Marchena said. “We are very grateful for the support we received from our graduates to help pay for the new technology.”

Now, participants in the Global Observership Program attend clinical rounds in a growing number of specialties through a mobile computer learning system equipped with high-definition video cameras, high-fidelity audio equipment and videoconferencing technology that complies with patient confidentiality requirements.

For example, Dr. de Marchena led three international physicians into the cardiology intensive care unit (ICU) at UHealth Tower on a pilot clinical round early this summer to see patients with serious heart conditions. Joining the virtual session from their home countries were Javier Chambi, M.D., (Peru), Maria Emelia Romero, M.D. (Colombia), and Sujana Sanka, M.D. (India).

“It was really an amazing learning experience for me,” Dr. Sanka said. “I saw many cases and participated in the case discussions. The doctors explained the topics clearly. I'm glad to be a part of this program amid the COVID-19 pandemic.”

Drs. Chambi and Romero also appreciated the opportunity to continue their training during the pandemic.



A camera and PC enable physicians in several other countries to observe a surgical procedure in Miami.

“This online training turned out to be just what I needed,” Dr. Romero said. “Even though the rotation was online, it felt as if we were there. It helped me achieve my educational goals, learn and be part of an excellent cardiology team.”

Since the pilot in June, the cardiology intensive care unit (ICU) virtual rounds has evolved into a regular feature with physician observers from 30 different countries in Africa, Asia, Europe and South America.

Growing the program

To date, the IMI’s virtual training program has drawn observers in more than a dozen time zones in the U.S. and around the world.

“About half are doctors who have graduated from medical school but not started their residencies,” Dr. de Marchena said. “Others are practicing physicians who want to benefit from

U.S. training, while others are medical students learning about potential career specialties.”

Currently, the virtual clinical rounds include cardiovascular ICU, internal medicine, pathology, endocrinology, clinical cardiology, surgical ICU (transplant and mechanical circulatory support), and hematology/stem cell rounds. Infectious disease rounds will be next, followed by trauma, dermatology and neurosurgery.

Dr. de Marchena expects progressive growth in the virtual Global Observership Program with the addition of many more specialties and participants each month. There has been a steady increase in the number of requests from UM departments, as well as observers, asking to participate in the virtual rounds. The IMI team is also developing webinars and mini-fellowship programs that can be completed at a distance.

“We expect virtual clinical training will continue in the future,” Dr. de Marchena said. “It is a very cost-efficient program that provides students with exposure to advanced medical diagnostic and treatment technology, as well as the experience of our faculty, giving them valuable career learning opportunities.”