Foundation for SMFM 2018 Garite Mini-Sabbatical Grant

"American College of Chest Physicians Critical Care Ultrasound training program and certification in point of care ultrasound (POCUS)"

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In 2018, I was awarded the Foundation for SMFM's Garite Mini-Sabbatical Grant for my application of point of care ultrasound (POCUS) in obstetrics. Soon after receiving the grant, I started the two main arms of my proposal – formal POCUS education through the American College of Chest Physicians (CHEST) and working with Dr. Rachel Liu and the Yale Emergency Medicine Department's point of care ultrasound division.

Through hands-on courses with CHEST, I accomplished two goals. One was to shore up the ad hoc POCUS training I received as a critical care fellow with formal, structured education on the performance, interpretation, and integration into clinical practice of point of care ultrasound examinations. I was able to refine and hone skills, to which I had already been exposed, and plug gaps in areas I had missed. The second goal was to gain exposure to a complete curriculum for taking learners who have no experience with POCUS to being able to independently perform POCUS examinations. Learning "how to teach POCUS" was invaluable as I transitioned into a role where I teach POCUS more than I perform examinations by myself.



While at Yale I simultaneously began working with Dr Liu and the EM POCUS team. They conducted robust weekly half-day sessions with a team comprised of medical students, residents, fellows, and POCUS faculty, with review of any pertinent POCUS cases from the prior week, as well as didactic lectures. As I expected, this clinical correlation and learning was excellent. However, even more important, was the exposure to their quality improvement process. Before being able to partake in this, I did not understand the importance of having a review and feedback mechanism for a relatively new tool set like POCUS.

After completing the coursework through CHEST and Yale, I was prepared to sit for and pass the inaugural Examination of Special Competence in Critical Care

Echocardiography through the National Board of Echocardiography (NBE). NBE also certifies cardiology and anesthesiology echocardiographers and I believe this will be the new standard for board certification in POCUS.

In September 2019, I was lucky to start as a faculty member in Maternal-Fetal Medicine and Critical Care at Washington University in St. Louis and have been able to continue and grow my involvement with

POCUS and obstetrics by teaching residents and fellows. Two of my proudest moments so far have involved my trainees – one when taking a fellow through an exam and one of our maternal cardiologists walked in and remarked "nice images," and the other when a senior fellow did her first solo POCUS examination on call to rule out peri-partum cardiomyopathy and was able to report identical findings to those read out on the formal echocardiogram in the morning.

I joined the hospital-wide POCUS group as the OB representative and convinced our administration to move forward with further equipment purchases. Having this skill set has also been invaluable during the COVID-19 pandemic as I am able to evaluate both maternal and fetal status without having to involve other providers or equipment.

Moving forward, my priorities include continuing POCUS education for residents and fellows. As they gain skills to perform independent examinations, there needs to be a continual image review and quality improvement process. My hope is to be able to replicate the model I learned from Dr. Liu at at Yale. Another priority is to gather data for research purposes.

I would like to finish by thanking the <u>Foundation for SMFM</u> for selecting me as a Garite Mini-Sabbatical Grant recipient. Without your support, I would not be where I am today as a practitioner and educator for point of care ultrasound.