

Expert Perspectives



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Expanding access to expertise in echocardiography

The COVID-19 pandemic has done much to encourage remote collaboration wherever possible, not only for safety reasons, but also to bring care where and when needed in cost-effective ways. Remote collaboration during an ultrasound exam – using the ultrasound system itself – is an excellent example. Pediatric cardiologist Dr. Pei-Ni Jone is finding that remote collaboration with Philips Collaboration Live on her team's ultrasound systems is aiding her in the teaching and guiding of newer ultrasound users from her computer, allowing her to support complex protocols and providing for efficient collaboration with surgical colleagues in the OR, giving her the opportunity to effectively be in two places at once. It's also helped her to save valuable personal protective equipment (PPE), which has often been in short supply during the pandemic. Dr. Jone is using Collaboration Live to expand access to expertise in echocardiography, enhancing the experience for the healthcare team, and also, ultimately for patients.

“Telehealth will be our future, and Collaboration Live will allow us to have more connections, even to our patients,” says Dr. Jone.

Remote collaboration became essential during the pandemic

Collaboration Live lets users quickly and securely talk, text, screen share and video stream using the ultrasound system, which makes it possible for expert advice to be given in real time, even when physical distance separates the expert and the sonographer.

By using Collaboration Live, Dr. Jones and her team are able to come up with creative solutions to address the challenge of guiding ultrasound exams in a pandemic and beyond. Before Collaboration Live, she would be positioned directly next to the physician, reviewing echocardiography images in real time for pre-op, or assisting a sonographer who was having difficulty obtaining images at bedside or in the operating room, the cardiac catheterization laboratory or the intensive care unit. With Collaboration Live, she is able

to review ultrasound images and give guidance in real time without being physically present at the bedside or in the OR “I can log onto the system and see the images coming across on my computer. So, for example, I could be in the echo lab and my physician is in the operating room doing pre-op transesophageal echocardiography, and I can log into the ultrasound machine and see the images that the sonographer is doing live, without me being present in the room,” says Dr. Jones. Being able to advise from a distance helps the team save PPE for when it’s truly needed.

The value of real-time coaching for complex protocols

Dr. Jones says that this remote collaboration is also valuable in teaching more complex protocols. “If a sonographer is learning how to use a 3D manipulation to get, for example, better 3D images of a mitral valve, it allows me to teach them by saying, ‘OK, rotate now, and then rotate counterclockwise.’” She can offer guidance throughout the exam, giving real-time feedback without having to be in the room with the sonographer.



“That’s the fantastic part about Collaboration Live: I can be in the lab reading studies and then helping the surgeons when they want to talk to me at the same time prior to their surgery.”

—Dr. Pei-Ni Jone

Boosting productivity while giving guidance

Dr. Jone uses Collaboration Live to multitask as appropriate when she is looking at the images that are being obtained by her medical fellows in the OR. “I have the continual advantage of looking at the images that are being scanned while my fellows are in the operating room, and I can guide them by talking to them through the computer system, which they can hear through the ultrasound system, and then I can direct them about how to get the images,” she says. She points out that teaching in this way allows the fellows to be more independent, and to scan by themselves while learning as she directs them.

She says that during the times when sonographers are capturing images that are not critical to the procedure, as frequently happens with a long case, she is able to be at the lab reading studies on a separate monitor in order to meet the workflow requirements of the lab’s studies per day, which usually number 70 or 80 across three readers. No time is wasted in travel, or in downtime while in the OR.

Better communication in the OR

Because Dr. Jone can initiate live video of herself on the ultrasound system, a surgeon can communicate with her as if they were sharing a video conference meeting, and she can speak directly with the surgeon about the ultrasound images and findings. “When we’re looking at these images, the transmission of the images is in real time and the image quality is not degraded,” she says. Dr. Jone values being able to take control of the image, manipulating and turning the image in a 3D fashion for the surgeon, as if they were in the same room. Frequently a surgeon who is operating on a mitral valve, for example, will want to know more about the particular anatomy to be able to plan for a successful repair. Dr. Jone says, “That’s the fantastic part about Collaboration Live: I can be in the lab reading studies and then helping the surgeons when they want to talk to me at the same time prior to their surgery.”

Elevating the level of care at outreach sites

Dr. Jone believes that Collaboration Live can help sonographers receive the real-time training that would allow technicians at their outreach sites to be able to take on more complicated protocols, such as for congenital heart disease. Outreach sites can be a six- to eight-hour drive from the hospital. Remote collaboration is ideal in situations such as this, providing a high level of care and more effective use of resources. “I think the advantage is that you can see the sonographer’s hands and you can see the images,” she says, “... to be able to dial into their machine and then look at their images and say, ‘Maybe you want to turn your hand counterclockwise 20° and then tilt the transducer up, and you’ll be able to see that’” is of great value. “I think in that way sonographers will feel that they’re being engaged and being taught, as everybody would like to learn as they progress along in their careers. They want to know how to do better. They are trained in scanning adults, and pediatric congenital heart disease is very difficult. You really have to be specifically trained on how to recognize different types of heart disease,” says Dr. Jone.

“I want other physicians to know that telehealth will be our future and the expansion of Collaboration Live will allow us to have more connections, even to our patients. If a video camera is installed from their side, the sonographer could finish the image and I could give them a diagnosis and talk to the family at the bedside,” she says.

Remote collaboration with Collaboration Live aids teaching and guiding newer ultrasound users, allows for support of complex protocols, provides more efficient collaboration with surgical colleagues in the OR, and helps elevate the care available at outreach sites.

See the video on Collaboration Live
https://youtu.be/KWT_FTGo-IY

Results from case studies are not predictive of results in other cases. Results in other cases may vary.

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