GE HealthCare

ViewPoint™ 6 brings a new level of efficiency to the Echo Lab

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Dr. Christos Mihos
Cardiologist and director of the Echo Lab
Mount Sinai Medical Center, Miami Beach, Florida

Christos Mihos, DO, is a cardiologist and the director of the Echo Lab at Mount Sinai Medical Center in Miami Beach, Florida. He oversees the management of a lab that scans approximately 15,000 patients a year. He also supervises the cardiology fellows who rotate through the hospital's large non-invasive lab, supports a diverse and academic team of echocardiographers, and performs an average of five TEEs on a daily basis. In early 2020, he was responsible for the decision to upgrade the lab's reporting and image management software to GE HealthCare's ViewPoint 6. We spoke with him about his decision and how the new software has helped the Mount Sinai Echo Lab and the clinicians and patients they support.

What influenced your decision to invest in ViewPoint 6?

Our systems were becoming outdated. And as our programs, both structural and surgical, were growing, we needed more capabilities. I was familiar with GE HealthCare technology from my years working at Mount Sinai. I also spent two years at Massachusetts General Hospital, Harvard Medical School in Boston completing my advanced echo fellowship from 2015 to 2017. Their entire structure was built around and allowed me to work with a different manufacturer's software.

I had no reservations giving the hospital administration my approval, knowing that GE HealthCare would enable us to do what we needed to do here with echo. But as importantly, I knew the support we'd have from GE HealthCare in the background. I'm actually a very firm believer in working with partners and in partnership, and I think the thing that pushed us over was the fact that we have the support from GE HealthCare.

How was your interaction with the GE HealthCare team, from start to go live?

Going into the changeover, we were nervous that this was going to slow down the institution. And I don't mean that only from a business perspective, but from an actual medical perspective. You need to have access to studies, to be reading them efficiently, to be giving doctors results and helping them triage how they're going to treat patients. Interrupting that flow was a big concern for us.

But that didn't happen, and it's a testament to having GE HealthCare here onsite during the transition process and having their backup. We had enough GE HealthCare personnel here to train our faculty based on their schedules. Once GE HealthCare was offsite, my technical director and I were able to train the doctors or give them repeated feedback until they were comfortable with the system themselves. We have learned the bells and whistles of the software, where we can simplify things for readers based on their level of experience, and what they're using the software for. That's been a big plus.

There were some challenges in the beginning as we developed experience with the new technology. When I've had issues where I didn't know how to do something, I've been able to email my GE HealthCare support contact. And he can log right in and help me solve most any problem remotely.

How has ViewPoint 6 changed the workflows for the examinations you do in your Echo Lab?

We perform intraoperative, elective, and structural heart transesophageal echocardiograms (TEE) as well as Transthoracic Echocardiagrams (TTEs) — about 1,300 total studies per month.

ViewPoint 6 has helped scheduling and my ability to see what has been ordered, how it's been ordered, what time it was done. The system integrated with Epic[1] fairly seamlessly and, as a director, I appreciate being able to see the entire workflow at any time of the day or night.

What about report generation?

That has been one of the brightest spots of the software, giving us the ability to tailor the reporting, both from an efficiency and a standardization standpoint. We've personalized our statements, our measurements, and what we're recording.

Here is a recent example. We wanted to move into a more detailed assessment when looking at the left ventricle and reporting hypertensive heart disease. We are moving the lab and the division towards using left ventricle (LV) mass, being more academic in how we describe it. It's a very powerful way to risk stratify patients and tailor therapy. Once we introduced the concept and taught it to the fellows, I was able to configure it in the EchoPAC Plug-in and ViewPoint 6. We have pre-populated measurements in the template, making it easier for everyone to move towards LV mass. We have received great feedback.

ViewPoint 6 is actually a very pliable system and easy for everybody to work with. We can consistently upgrade our templates and our measurements to reflect guidelines.

The reports are easier for clinicians to read as well. ViewPoint 6 provides a neater package, and now everyone knows where to look on the report for the information they need.

It's even a plus for our training programs, because fellows use the measurements, cutoffs, structures, and specific parameters when coming to a diagnosis. And those are all built into our templates and they're very easily accessible.

Has ViewPoint 6 impacted image management?

We were able to merge our old GE HealthCare Image Vault system seamlessly with ViewPoint 6. Our lab transitioned to digital format around 2007 and I can pull up all those echo exams at any time from anywhere in ViewPoint 6 or the EchoPAC Plug-in we use for advanced analysis. I use ViewPoint 6 for image management after hours, for instance when someone calls in the middle of the night for a quick assessment. I've never encountered an issue where I look at an image in ViewPoint 6 and then see something I didn't see when I looked at it in EchoPAC Plug-in.

> *"ViewPoint 6 has provided a marked improvement in our efficiency and given me a better oversight of what is going on in the lab."*

Mount Sinai Medical Center in Miami Beach, Florida

Have you found any other use for the technology?

One of the exciting things we're doing right now, through a Florida Heart and Research Foundation grant we were awarded, is using the EchoPAC Plug-in to measure left ventricular performance and strain using speckle-tracking echocardiography in patients who have had heart attacks. We're enrolling them in the study and measuring their mechanics and exercise capacity at baseline after their heart attack. The patients participate in cardiac rehab via telemedicine for 12 weeks, and then we repeat the stress test and remeasure all their mechanics. We hope to show a benefit from cardiac rehab after heart attacks. And the fact that we have the ability with ViewPoint 6 and the EchoPAC Plug-in to do it is the reason we were able to submit our grant and were awarded the funding. That's one of several studies we're conducting right now using ViewPoint 6.

You mentioned efficiency earlier. Has ViewPoint 6 impacted efficiency?

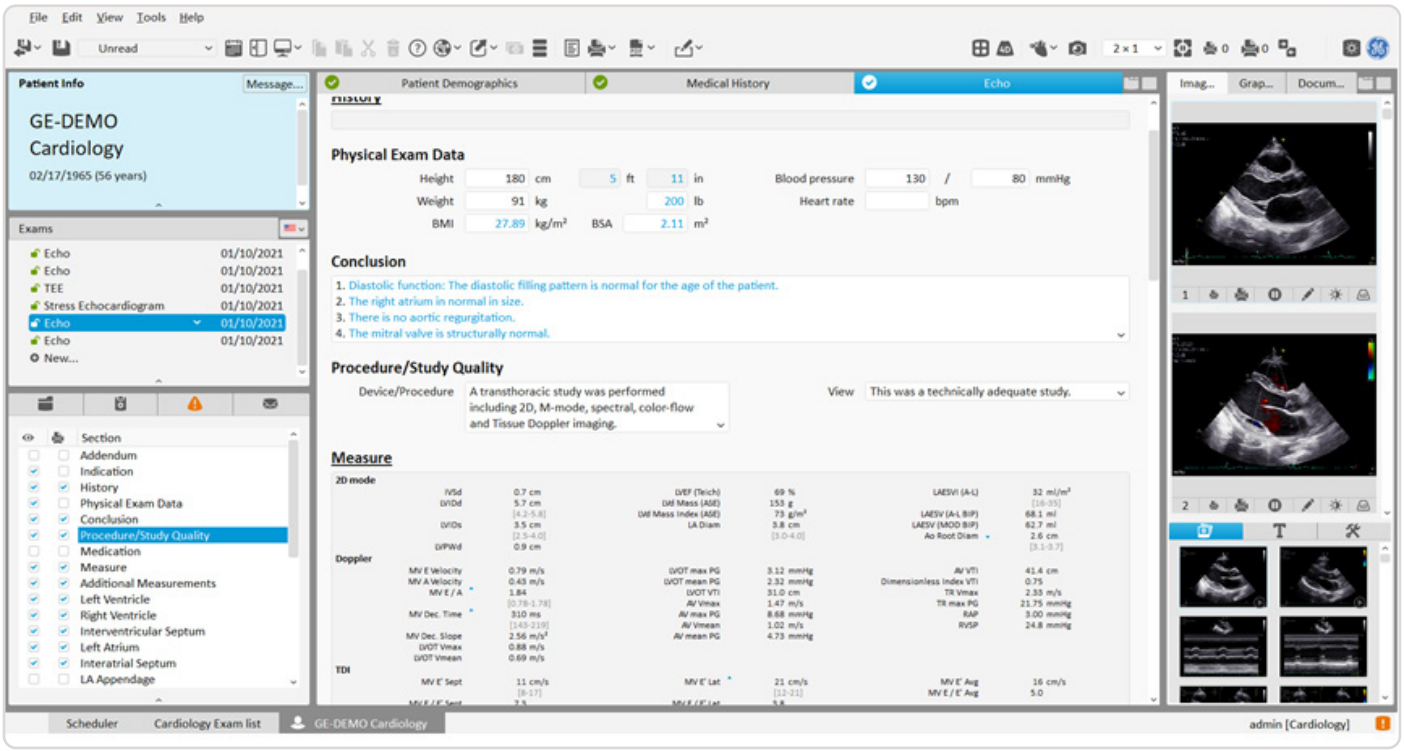
100%. No question. It took time to adjust, because you have to get comfortable with any new system. ViewPoint 6 is a different product than what we had before, but it's different in a very good way. It's much more streamlined and it's much more straightforward. Far fewer clicks.

I've been able to become more efficient and streamline my productivity. I would not go back to the old system.

What would you tell other department heads considering a system change?

When facing a system upgrade, communication is key. Everything else we can deal with — we can work through. But if you don't have the support, the personnel, good communication and a constructive relationship with your vendor, it's not going to work. The support we receive from the GE HealthCare team is really appreciated, not just for us and our faculty, but for the fellows. The fellows are our future faculty, and they are independent and comfortable with ViewPoint 6 and doing their research using GE HealthCare. This technology change will have a trickle-down effect, and it's been nothing but positive.

"There were important challenges in overseeing the volume of studies our lab is responsible for — approximately 15,000 a year — with the prior system. Eliminating those challenges is the best evidence I can give you in terms of how I perceive what ViewPoint 6's done for our service line."



1. Epic is an Electronic Medical Record system, manufactured by: Epic Systems Corporation, Verona, Wisconsin, USA.

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