

By: The Imaging Wire, November 5, 2020

The role of imaging in pediatric cardiology has evolved tremendously in recent years, so in order for these practices to operate successfully, their PACS systems have to evolve at the same pace. That can be easier said than done, but it's exactly what happened with Pediatric Cardiac Care of Arizona and its VidiStar PACS system.

In this Imaging Wire Q&A, we sat down with Dr. John Stock of Pediatric Cardiac Care of Arizona to discuss the evolving role of imaging in his practice, how Fujifilm's VidiStar PACS has evolved along with it, and what pediatric cardiology practices should look for in their own PACS systems.



IW: Tell us about your practice and how you use imaging.

Dr. John Stock: We perform and interpret approximately 3,000 pediatric studies per year. I interpret all the cardiac ultrasound studies independently after reviewing and confirming measurements.

From there, VidiStar generates a report that is often faxed to the referring physician. The studies are digitally archived on our server and in the cloud, with reports maintained in the electronic medical records. We follow all appropriate use guidelines and quality assurance initiatives, and we are an IAC accredited lab.

IW: How has your practice been impacted by the COVID-19 pandemic?

Dr. John Stock: COVID-19 has definitely affected my practice, but not how some might think. We experienced a 20% to 30% drop in patient volumes during the shutdown's peak months. There appears to have been a rebound, as children and adolescents returned back to their pediatricians, schools, and sports.

Pediatric patients with congenital heart disease have a higher risk of complications. As a result, we are cautious in our follow up and in some cases evaluating for possible findings related to COVID-19. There is also a subset of the disease called multi-inflammatory syndrome of childhood (MIS-C), which can result in decreased ventricular function and coronary artery dilation. This requires prompt management and follow-up.

IW: You've been using VidiStar for quite a while, can you share how you use it?

Dr. John Stock: I use VidiStar on a daily basis for interpreting and completing reports on my pediatric, adult congenital, and fetal cardiology patients. This includes looking at the study as the sonographer performs an evaluation, followed by an independent review with measurements confirmed by the VidiStar reporting package, and then saving the study to our server.

IW: How has VidiStar changed over time?

Dr. John Stock: VidiStar has come a long way since Fujifilm acquired the platform two-plus years ago, turning it into a system that is affordable, user friendly, and can support the simplest and most complex pediatric cases.

I've benefited most from the improvements to VidiStar's pediatric reporting package. At first, VidiStar's pediatric package was very basic and utilized an adult format, requiring me to do a lot of work outside of the platform. Kids are not small adults. They have their own complexities. The reports need to reflect the variation in anatomy that can occur in congenital heart disease.

Fujifilm came in, made a commitment to pediatrics, and VidiStar now fits the needs of most pediatric cardiology practices. In just the last two years, the pediatric package improved many measurement parameters and Doppler measurements, which allow me to perform comparisons over time.



About Pediatric Cardiac Care of Arizona:

Based in Tempe, Arizona, PCCA's mission is to partner with patients, families, and referring physicians in order to provide excellent outpatient cardiac care in an environment of trust, openness, and professionalism.

Dr. John Stock has cared for patients with congenital and acquired heart disease for over 20 years, after receiving his medical degree from Upstate Medical Center, completing his pediatric residency at Phoenix Children's Hospital, and undergoing fellowship at Oregon Health Sciences University.

IW: What advice can you share for pediatric cardiologists evaluating new PACS systems?

Dr. John Stock: Any independent pediatric cardiology provider considering a new PACS system should evaluate how each system would meet their clinical and workflow needs and whether it fits their budget.

Most important for me clinically, is the ability to track changes over time and knowing that I can be confident when I send out reports to some of the best centers in the country. The reports must also look professional, with appropriate identification of pertinent impressions, as well as documentation of pertinent positive and negative findings.

From a workflow perspective, it is also very important that the PACS system interfaces well with the electronic medical records, and that it's easy for both the sonographer and the physician to use.

It's also crucial that the PACS system works consistently. By that, I mean that the system always works and its output is reproducible and consistent over time, which isn't guaranteed with some platforms.

Pediatric cardiologists should also look for reporting packages that clearly document Z scores and Doppler velocities, which are necessary for appropriate billing. Incorporation of 3-D and strain will also be necessary going forward.

About Fujifilm VidiStar:

The Fujifilm VidiStar Platform gives physicians and healthcare providers the ability to read and interpret diagnostic studies over the internet for timely interpretation, improved patient diagnosis, clinical decision support, and advanced patient data analytics and notification.

VidiStar provides highly customizable infrastructure for multi-modality viewing, reporting, and analytics while interfacing with existing IT systems for one seamless solution.