



Quality care close to home

Access to first class electrophysiology – a community hospital's promise

Who/where
Aultman Hospital
Canton, Ohio
USA

Challenge
Keep local patients from having to seek electrophysiology services at distant hospitals

Solution
Provide a comprehensive electrophysiology offering with Philips EP solutions

Aultman Hospital chooses Philips Allura Xper FD10 with EP cockpit and EP navigator to support complex procedures

Aultman Hospital is committed to delivering compassionate health care services of an exceptional and consistent quality to the residents of Canton, Ohio, in Stark County, and surrounding counties. Installation of state-of-the-art electrophysiology (EP) equipment from Philips demonstrates their clinical leadership and foresight.

“Although we are a community hospital,” says Dr. Srinivasa Satti, director of the Electrophysiology Lab, “we service a large area that lies outside the reach of Columbus, Cleveland or Pittsburgh.”

Offering the very latest in EP technology might seem atypical for a community hospital, but for Aultman it's part of a continuing reinvestment in staff, facilities and technology. As Colleen Sondles, director of invasive cardiology explains, “our mission here at Aultman is to lead our community to improved health. Our goal is to provide quality EP services so patients do not have to leave the area.”



Srinivasa Satti, MD

Realizing the shortcomings

Six years ago, Dr. Satti joined Aultman Hospital where his talent and teamwork helped establish Aultman as a quality provider of electrophysiology care. Yet over time, he and his colleagues struggled as the volume of complex cases increased.

“Previously we were doing pacemakers, ICDs and ablations,” notes Dr. Satti. “What's happened is that now we are doing a large volume of resynchronization devices and complex ablations. These cases require a longer procedure time and the use of new, finer wires. We needed a more sophisticated system with improved cardiac imaging capabilities.”

PHILIPS

“This new lab is several generations beyond what we had previously.”

Srinivasa Satti, MD

Efficiencies were lacking too. When an intracardiac echocardiogram was required, the equipment had to be wheeled in, as did the mapping system, defibrillator, pacemaker analyzer, or additional monitors to display cross-modality images. “With all the cords on the floor,” says Deb Nixdorf, RCIS certified radiologic technologist and technical specialist for the EP lab, “the room was messy and difficult to move around in.”

Aultman’s recently completed Heart Center provided Dr. Satti with a new EP lab and an opportunity to search for an EP system that would meet the obligations of a demanding, complex case load. “It was something we knew was critical from a physician confidence standpoint,” says Shawn Katusin, director of cardiac business operations.

Philips offers solutions that fit

Dr. Satti understood that any new technology must be robust enough to support both current and future EP challenges. What drew him to Philips was not only the exceptional image quality available with the Allura Xper FD10 X-ray

system, but the simplified workflow made possible by Philips EP cockpit. This combination was exactly what the Aultman EP team needed.

“We had the opportunity to see the complete Philips EP system at work during a live case,” Satti recalls, “and we immediately recognized how well the improved workflow and high-quality images combined to offer a pleasant work experience.”

With a pragmatic eye to business, Sondles insisted that the system:

- meets the needs of physician and staff
- works within Aultman’s capital budget
- allows for procedures with lower radiation, and
- delivers departmental efficiencies

“We wanted,” she says, “a system that was capable of performing high-end procedures.” Katusin adds, “we’ve been reaching out to the people in our community to say we have comparable technology here at Aultman as you will find at larger facilities in the big urban centers.”



To address the needs of patient, physician and hospital, the selection team at Aultman opted for the full Philips EP package:

- **Allura Xper FD10 X-ray system** – a ceiling suspended, flat detector system capable of acquiring high-quality, low X-ray dose cardiac images in AP, lateral view or rotational scan
- **EP cockpit** – an innovative EP suite that streamlines and integrates various third-party equipment found in the lab for a more intuitive, clutter-free work environment
- **EP navigator** – a tool to visualize 3D cardiac anatomy using either a pre-procedural CT (or rotational angiography) which overlays with fluoro to show the position of catheters, in real time, in one image

High quality at a low X-ray dose

The Philips system has been up and running at Aultman for only a short time, but results to-date have been impressive. “With the Philips equipment, it’s just night and day in image quality,” describes Satti. “Now we’re able to look at 0.014 inch wires with less radiation exposure.”

Philips has developed special EP dose settings uniquely suited for electrophysiology applications. These clinically proven protocols generate superb image quality with a low X-ray dose. “There are three different pre-programmed fluoro modes, and we consistently use the one with the lowest dose,” explains Nixdorf. “When we do a cine run, it’s at 3.75 frames per second (fps) which still offers exceptional image quality. If the doctors want even better visualization, they can increase by pushing a single button.”



(Left to right) Lori Wyler, RT; June Shuster, RN; Srinivasa Satti, MD; Debra Nixdorf, RT; Ira Friedlander, MD; Kelly Henry, RN; Gregory Bonavita, MD; Dennis Ross, CRNA



Dr Satti agrees, “With our old system, we’d invariably be at 15 fps and sometimes even have to go to 30 fps to be able to visualize the catheters. Now we’re doing 90% of our cases at 3.75 fps. That’s just phenomenal because it is reducing radiation exposure so dramatically.”

With high-quality images acquired at reduced dose, Dr. Satti is able to do his resynchronization procedures more effectively. Finer detail makes placing an LV lead through the coronary sinus into an epicardial system easier, and it provides additional options as he is able to see more sub-branches of the venous system.

“Now we are more cognizant of where we truly have sub-branches,” he says. “This allows us to confidently place the lead.”

Image clarity has allowed Dr. Satti to shorten his resynchronization time from three hours down to one or two. He is eager to achieve similar savings with Philips EP navigator in upcoming ablation procedures. This unique guidance tool visualizes 3D cardiac anatomy

and the position of catheters, in real time, in one image. It takes a pre-interventional CT image and combines it with the live fluoroscopic images. The resulting composite provides an indication of all catheters, in real time, in relation to detailed 3D anatomy of the heart.

A harmony of elements

The newly outfitted EP lab is fully prepared to accomplish all that is required of it:

- Diagnostic EP studies
- Ablations (Left ventricular and simple SVT)
- Pacemaker and defibrillator implantation
- Device resynchronization
- Complex cases

Gone is the clutter and hindrance of diverse systems, monitors and cabling. The new room is open and organized. With EP cockpit, Dr. Satti and his staff enjoy an integrated environment which places six monitors at bedside on one ceiling boom and key supporting equipment (mapping, recording, defibrillator, etc.) nearby on a second. All equipment, including third-party equipment, is operated from a central worksport in the control room.

“Everything is now hardwired,” says Satti. “The six screens are physically on one boom right in front of me. I can look at displays of EP Med data, intracardiac electrograms, ultrasound, fluoroscopic images (live and review) and our ESI mapping system. All the information is available simultaneously. And on-the-fly, we can reassign different inputs to different screens depending on what data is important at the moment.”

According to Nixdorf, whose responsibilities include room preparation, “the new equipment rack has virtually eliminated the need to wheel equipment in and out, plug it in, hook it up and establish an interface with each system. This saves time and allows our team to work quickly and efficiently, with more focus on the patient.”

From an aesthetic, equipment safety and workflow standpoint, EP cockpit promotes a greater ease and convenience for complex EP procedures.



(Left to right)
Srinivasa Satti, MD;
Gregory Bonavita, MD;
and Ira Friedlander, MD

Good for the community

Aultman Hospital's continuing commitment to quality health care and patient well-being is reflected in the new EP room's ability to help simplify procedures, reduce costs and support confident decision making.

"Now EP patients that might have been referred to tertiary facilities can stay here at Aultman," says Katusin. "We strive to keep these services within our community, and with this new equipment we've been able to do that."

Physician confidence is boosted on multiple levels, suggests Dr. Satti. "We're more confident that we're able to book cases knowing we're going to get them done. And we're more confidently able to focus on the clinical aspect of the patient."

Together, the Allura Xper FD10, EP cockpit and EP navigator help free Dr. Satti and colleagues from the hazard of technology overload by improving integration and streamlining interactions. Philips believes this sensible convergence of tools acts to support, not hinder, the practitioner.

Dr. Satti understands how critical this approach can be during some of today's most complex cases and how well it positions Aultman for tomorrow's challenges. "As EP evolves," he says, "we want our tools to become invisible to us. It's very important not to struggle against the equipment, but to focus on the patient. That's what our current Philips EP system is allowing us to do."



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