

A decorative graphic consisting of several light blue outlined hexagons of varying sizes, arranged in a pattern that tapers towards the right. One hexagon in the center is filled with a solid light gray color.

NORTH MEMORIAL HEALTH

CASE STUDY: Synapse[®] Cardiology PACS





North Memorial Health

Osama A. Ibrahim, MD, FACC, FSCAI, Interventional Cardiologist,
North Memorial Health Heart & Vascular Center

THE CHALLENGE: Streamlining Cardiac Imaging and Reporting Access

Founded in 1939, North Memorial Health began as a single hospital. It has since grown to include two hospitals and a network of 26 specialty centers, primary care clinics, urgent care and emergency care facilities. Noteworthy among its many specialties, the North Memorial Health Heart & Vascular team—led by industry leading cardiologists and cardiothoracic surgeons—has made the organization one of the top-rated hospitals in the nation for cardiovascular care.

A large, multi-site health system with an esteemed reputation for quality cardiovascular care, North Memorial Health sought a Cardiovascular Information System including enterprise imaging based on the architecture and design of the most modern CVIS. The solution needed to include a secure image management and reporting platform that would meet the needs of busy cardiologists' caseloads, affording them proper and efficient reporting to continuously advance the quality of patient care.

As with many leading edge healthcare systems, North Memorial Health faced challenges due to disparate solutions in its various departments. North Memorial Health desired to preserve previous investments in technology and provide integrations to existing equipment from a variety of different vendors. For example, the health system's cath lab, echo lab, vascular lab and nuclear medicine department all connected to different imaging and reporting systems.

North Memorial Health was eager to streamline its patient imaging and reporting systems, combining them into a single-vendor solution. The consolidation of all diagnostic cardiology images and data allowed the cardiologists to work more efficiently by having all relevant information on one platform at the time of reporting. This would also improve the quality of reporting due to access to current and previous correlative imaging and data.

The health system's 12-year legacy application lacked reporting customization capabilities, and would not be able to evolve into the desired one-stop solution that would meet the organization's medical imaging needs.

THE SOLUTION: Collaborative System Upgrade with Synapse® Cardiology PACS

Synapse® Cardiology PACS is Fujifilm's next-generation server-side rendering solution designed specifically to help streamline image review and reporting across cardiovascular modalities. When North Memorial Health realized the potential of Fujifilm's Synapse Cardiology PACS, the two organizations collaborated to fully customize the product so it would meet the health system's specific needs, resulting in the feature rich version of Synapse Cardiology PACS.

Fujifilm has leveraged the investment and advancements made with Synapse Radiology PACS and has applied its expertise to cardiology, bringing robust tool sets to a common PACS platform, which will be immediately realized by the cardiologists. Fujifilm's investments into their PACS development are providing healthcare organizations, such as North Memorial Health, the workflows to enhance image management and reporting across multiple modalities, allowing for a more complete patient record and a more comprehensive care plan—a roadmap that fully aligned with North Memorial Health's short-term goals.

As the first site to go live with Fujifilm's Synapse Cardiology PACS, North Memorial Health was closely involved with developing the system's advanced reporting templates. North Memorial Health physicians helped to design templates that will maximize efficiencies while they're reading—freeing up valuable time that can now be spent focusing on patient care.

"It all boils down to the ability to easily support one application and having trust in that vendor. By partnering with Fujifilm and combining all of our data, our organization was able to achieve significant cost savings."

- Lee Kupczynski, Enterprise PACS Administrator at North Memorial Health



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“The Fujifilm team considered our need for certain macros, summary statements and findings statements to be incorporated into the software, and offered us a solution with a desirable turnaround time,” says Osama A. Ibrahim, MD, FACC, FSCAI, Interventional Cardiologist at North Memorial Health Heart & Vascular Center.

The pressing challenges of a cardiologist’s day-to-day reality include seeing multiple patients and being spread thin in a fast paced procedural arena. This calls for enhanced efficiencies and a system that helps rather than hinders.

The customized platform and streamlined reporting features allow cardiologists like Dr. Ibrahim to make selections from pre-determined drop-down menus. The server-side technology means physicians can work from any device and report on-the-go. With the continuous, fast pace of the cath lab, it is imperative for physicians to complete reports in between cases instead of waiting until the end of the day.

“It saves a lot of time,” says Dr. Ibrahim. “If you input your information, by the time the report makes its way back to you you’re basically just finalizing and signing it.”

While customization is important, compliance is key. On top of tailoring reporting to meet provider needs, Fujifilm has assured that all report templates meet accreditation and registry requirements.

The overall implementation at North Memorial Health went smoothly, thanks in large part to the knowledge and experience of the Fujifilm team, which was staffed with cardiology tech-trained professionals from a variety of settings. That, Kupczynski, notes, “has been wonderful

because they speak the same language as the techs and doctors-- they know what the doctors are referencing when they speak in complexities, which has been really helpful.”

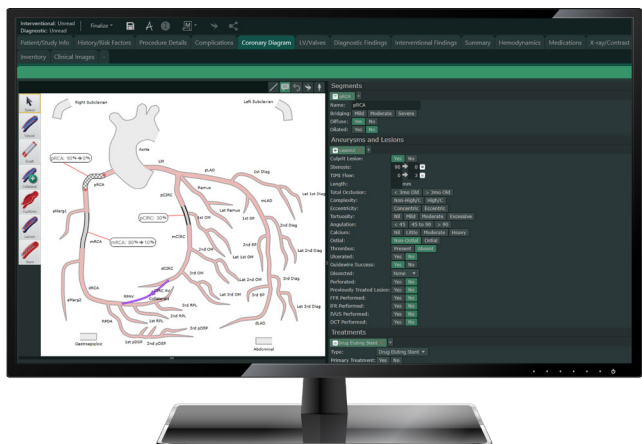
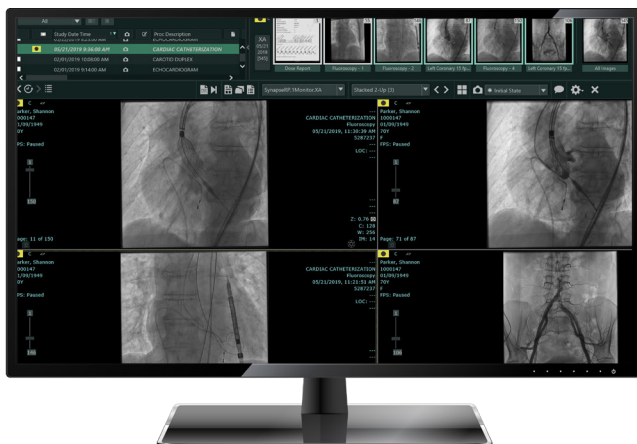
“Personally, this has been probably the best experience I’ve had working with a vendor group in the EHR field. I can reach out to Fujifilm anytime I need their help to support me,” says Cindy Berg, IT Specialist – Cardiology at North Memorial Health. “The relationship is just outstanding.”

RESULTS & NEXT STEPS: Workflow Efficiencies, Patient Engagement, Enhanced Security

North Memorial Health has made major strides in its enterprise imaging journey with the implementation of Synapse Cardiology PACS.

Thanks to the speed of the system, providers can have their procedure report into the North Memorial Health EHR (Epic) almost instantaneously. “Templates are built out, so providers need only populate the necessary forms and select statements from the customized dropdown menu,” says Berg. “By the time a patient gets to the floor, the providers already have a procedure report to reference. That’s been a great benefit with our heart team.”

The new system is much more efficient and easier to navigate, as well. “It takes only one click of a button to compare studies, or pull a prior report,” says Kupczynski. “If a physician has another phone call and needs to look at another patient, they don’t lose all the information that they’re currently working on.”





North Memorial Health

Cindy Berg, IT Specialist – Cardiology,
North Memorial Health

What's more, the organization is realizing noticeable gains thanks to the system's server-side technology. "The images and data are not rendering on the workstation, they're actually rendering on the server. So it's less taxing and we don't need to rely on big, expensive workstations," says Kupczynski.

Synapse Cardiology PACS has also allowed the clinical team to better involve patients in their own care journey. The ability to display images at the touch of a button and give patients a visual of their health condition gets patients more engaged in their treatment plan and follow-up.

While the clinical team can place a stent in a patient's heart, patients need to do their part, too. If they don't take control of their blood pressure, cholesterol, diabetes, and lifestyle habits, they may end up back in a similar position. "It's important for patients to see the before and after images because that to them is just priceless," adds Dr. Ibrahim.

"Allowing patients to have access to these images is extremely important. It's not only from a patient satisfaction perspective, but they understand what the problem is what we're trying to fix. To be able to show them that their artery is 99 percent blocked, I think it gives them almost the sense of engagement that they are also responsible for this process," says Dr. Ibrahim.

Finally, there is the benefit of enhanced security. One of the biggest fears for a healthcare administrator is a breach in security. Fujifilm's server-side design is fundamental to securing protected health information—there is no need to move an entire study to the desktop or mobile device. This eliminates client-side study cache, lowering the risk of data breaches in a HIPAA compliant system.

With the success of the project, Fujifilm and North Memorial Health are currently discussing the implementation of Fujifilm's Synapse Vendor Neutral Archive (VNA) which will help North Memorial Health achieve true imaging interoperability beyond the cath and echo labs and throughout the entire health system.

"Everything will interface and integrate into one single vendor's solutions, making it easier on us as an organization," says Kupczynski.

Learn more about how Fujifilm can be your single-vendor solution
at ei.fujimed.com.

SYNAPSE[®]
Cardiology PACS