



## CASE STUDY

# Geisinger Improves Ultrasound Documentation Time and Billed Volume with ExoWorks®

## EXECUTIVE SUMMARY

Geisinger has implemented Exo Works® in 6 institutes across 10 hospital campuses and multiple clinic locations.

- 86 ultrasound machines connected and in active use
- Critical Care department saw a 40% increase in completed ultrasound exam documentation
- MSK Sports Medicine department reported documentation time cut in half
- The Rheumatology department now performs 3 times as many POCUS exams each month

# The Vision and Challenge

Geisinger was working with a legacy vendor for their point-of-care ultrasound (POCUS) workflow that was designed for their emergency department and wasn't built for an enterprise level. When its contract was coming to an end, they were searching for a new solution that would better fit their whole organization's needs. They wanted a single-system solution that could flex across multiple departments, different physical locations, different medical specialties, and varying procedural and exam needs.

"We use ultrasound for a wide range of cases in the ICU," said Jason Stamm, MD, Division Chief of Critical Care Medicine at Geisinger. "But, when using the ultrasound machine, we had no means of capturing, storing, or interpreting the images in a formal way. This impacted our ability to educate our students and residents about ultrasound as well since we had no means of saving images for quality review and feedback. Even if we couldn't save our images to the EMR, we wanted to save our images to a cloud for teaching purposes at the very least. So, when we were looking for a solution, we sought something that could help in our department, but also something that could help our students in building portfolios for when they graduated."

Geisinger was excited by Exo's approach to POCUS, viewing medical imaging from a physician and patient-first perspective. They selected Exo Works®, a point-of-care ultrasound workflow software designed to simplify and streamline ultrasound exam documentation, billing, and quality assurance (QA) at the point of care. Its secure, cloud-based solution can be accessed from a phone, tablet, or web browser, enabling physicians to do their work from anywhere, and its easy-to-use admin tools allow POCUS program directors to oversee and track enterprise requirements for return on investment (ROI).

## The Outcome

To date, Geisinger has implemented Exo Works in six departments—Emergency Medicine, Rheumatology, Sports Medicine, Women's Health, Critical Care and Neurology—with 86 ultrasound machines connected and in active use. They plan to expand to other health departments at their organization soon. Having Exo Works seamlessly integrated with Geisinger's electronic health record (EHR) and picture archiving and communication system (PACS) systems means that ultrasound images will now appear in patient records, giving the clinicians who meet with patients downstream the ability to visually reference prior ultrasound procedures and examinations, rather than simply relying on notes.

After implementing Exo Works, Geisinger saw improvements in POCUS across multiple departments:

### Critical Care

Geisinger's Critical Care department saw a 40% increase in completed ultrasound exam documentation, all of which can be sent for billing. The ability to perform and document POCUS exams reliably means longitudinal care has improved capacity.

"We have 95 beds in our ICU unit, and ultrasound is an integral part of our patient care. Images now flow seamlessly from exam to documentation to billing. Plus, Exo Works' single sign-on feature keeps things secure, allowing me to work faster. It's nice to be able to capture all the hard work we are doing, so that patient records reflect the care they've received. I would definitely recommend Exo Works to others," said Dr. Stamm, MD, Division Chief of Critical Care Medicine at Geisinger. "Exo is by far the easiest to use."

### MSK Sports Medicine

The MSK Sports Medicine department reported streamlined documentation for an essential tool in their patient care, which saves time on overall shifts and seeing patients. Beforehand, the system they were using was unreliable and glitchy. It would freeze and stop working on healthcare professionals during the documentation stages. Now, along with larger images to review, the process has improved efficiencies and reliability.

Dr. Brian Scorsone, Athletic Trainer at Geisinger. "We use ultrasound on 85-90% of our patients. My documentation time for ultrasounds has been cut in half," shared Brian Scorsone, Athletic Trainer at Geisinger. "The amount of time it saves me seeing patients during my shift is like night and day. I put the reports in, and the physician can sign off on them easily with one button click. And Exo's team has been flexible to our needs—we asked for some features, and they delivered those features to us. I've been doing this for 15 years, and Exo Works is the best platform I've used."

"I am delighted by Exo's ease of use," said Matt Mcelroy, DO, RMSK, Program Director of Sports Medicine Fellowship at Geisinger. "Exo Works has simplified my documentation process, which allows me more time to spend with patients."

# Rheumatology

The Rheumatology department shared that, before Exo Works, they had a difficult time establishing reliable documentation. Now each person performs an average of 30 POCUS exams each month—up from 10 per month. They are now able to have confidence that all documented exams will be referenceable in the patient’s records, which also means exams can generate revenue.

“Before Exo Works, we would lose 50% of POCUS exams because the platform we had wasn’t reliable. We weren’t sure that when we documented an exam, it would actually show up in the patient’s record. Now we have that confidence—which is the biggest relief. I have 0 problems pushing images to PACS with Exo Works. It just works,” said David Bulbin, DO, Rheumatology Fellowship Program Director at Geisinger. “The reports in our department can be complicated because our needs are different from other specialties. Exo Works has made it easy. We completed 384 studies in 6 months, a huge jump from where we were before. It’s just nice to have a reliable system.”

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MATT MCELROY, DO, RMSK  
PROGRAM DIRECTOR OF SPORTS MEDICINE FELLOWSHIP AT GEISINGER

## Measuring the Benefits of POCUS Workflow

All departments spoken to with Exo Works implemented reported ease of use as the biggest benefit. Healthcare professionals described fewer steps to scan and complete ultrasound exams and improved continuity of care for patients with verifiable documentation of performed examinations. In addition to the staff productivity benefits of having a faster POCUS workflow, Geisinger has increased the quality control for POCUS examinations, which benefits POCUS learners at the organization and adds greater visibility for those overseeing POCUS usage. With single sign-on and HIPAA/HITRUST and SOC 2 compliance integrated into Exo Works, they have been able to keep compliance while also adopting a dynamic solution.

In addition to streamlining the use of POCUS at their facilities, Geisinger has also seen an accelerated rate of completed POCUS documentation. With more completed exams coming over the transom, Geisinger’s billing department has been able to recoup the ultrasound services healthcare professionals have been providing to patients. This increase in billed POCUS exams indicates increased revenue for the organization.

“Exo Works addresses crucial healthcare infrastructure challenges with post-exam documentation by integrating disparate process steps into one platform. At a group level, I can show my organizational leadership that ultrasound usage is increasing over time. And that means Exo Works is good for patient care, but it’s also good from a revenue generation perspective, which makes the leaders happy in their investment,” said Dr. Stamm. “I’m thrilled with having Exo here, and I look forward to continuing to use Exo Works.”

Exo Works comprises just one component of Exo’s growing medical imaging ecosystem, emphasizing a holistic approach to expanding ultrasound use at the point of care, which includes a handheld device, [Exo Iris®](#), and [proprietary artificial intelligence \(AI\)](#) features. Find out more [here](#).

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### About the Organization

Geisinger is committed to making better health easier for the more than 1 million people it serves. Founded more than 100 years ago by Abigail Geisinger, the system now includes 10 hospital campuses, a health plan with more than half a million members, a research institute and the Geisinger College of Health Sciences, which includes schools of medicine, nursing and graduate education. With more than 25,000 employees and 1,700+ employed physicians, Geisinger boosts its hometown economies in Pennsylvania by billions of dollars annually.