

# Advanced imaging is the backbone of minimally invasive and robotic surgeries

**S. Viswanathan**, Managing Director, Sequoia Healthcare, discusses the role of advanced imaging and shares an overview of the innovative products his company will showcase at AOCR 2025

## What innovative solutions or technologies is Sequoia Healthcare showcasing at AOCR 2025?

At AOCR 2025, Sequoia Healthcare is thrilled to showcase several groundbreaking innovations that align perfectly with this year's theme, "Clinical Radiology Decoded – See Like a Surgeon, Think Like a Physician." Our flagship product, the Clarity 1.5 Tesla Helium-Free MRI Scanner, is a testament to our commitment to advancing radiology. It is not only environmentally sustainable but also delivers exceptional imaging clarity, making it an invaluable tool for clinical radiology and pre-surgical planning.

We are also unveiling our Advanced Radiology Workflow and Last-Mile Connectivity solutions. These enable seamless integration with numerous companies working on discrete AI solutions in medical diagnostics. As a consolidator of different AI suites through our collaborators at Innowave Healthcare, we are creating a unified platform that allows healthcare providers to access cutting-edge AI tools for diagnostics. This ensures a streamlined workflow from imaging acquisition to advanced diagnostic insights, empowering radiologists and clinicians to work more efficiently and effectively.

Additionally, Sequoia Healthcare is has expanded its portfolio with the of MiE Gamma Camera also works is in

progress for a super fast DIGITAL PET CT and a low helium 3.0 Tesla sealed MRI. The 3.0 Tesla MRI is designed for enhanced imaging capabilities while maintaining helium efficiency.

Furthermore, we are working on a 512-Slice Ultrafast CT scanner capable of freezing heart motion and creating multiphase images of the heart in a single beat. These innovations are designed to enhance the diagnostic imaging landscape, offering greater precision and diagnostic capability to healthcare providers.

## AOCR will focus on Clinical Radiology Decoded – See Like a Surgeon, Think Like a Physician. How has real-time imaging improved the precision and planning of surgical procedures?

Real-time imaging has revolutionised surgical precision and planning. Technologies like real-time MRI and intraoperative CT imaging provide surgeons with immediate feedback during procedures. This ensures that surgical interventions are more precise, reducing the risk of complications and improving patient outcomes.

In our solutions, we've integrated 3D reconstruction and live volumetric imaging, which allow surgeons to visualise anatomical structures in incredible detail. This has a profound impact on surgical decision-making, particularly in complex procedures like



neurosurgery and cardiovascular interventions. For example, clarity ng neurosurgeons to navigate critical areas with unparalleled confidence.

These advancements also enhance multidisciplinary collaboration. Radiologists, surgeons, and other clinicians can work together seamlessly, leveraging real-time data to make more informed decisions, which ultimately translates into better patient care.

## What role does advanced imaging play in enhancing minimally invasive or robotic surgeries? Are there any new imaging modalities that you believe will significantly impact the field in the near future?

Advanced imaging is the backbone of minimally invasive and robotic surgeries. Modalities like high-resolution MRI, intraoperative ultrasound, and 512-Slice Ultrafast CT scanner provide real-time, high-precision imaging that guides robotic instruments with exceptional accuracy. These technologies reduce the invasiveness of procedures, shorten recovery times, and improve patient safety.

Looking ahead, Sequoia Healthcare is planning to further develop our