

## AI Abdomen Acuson Sequoia 3.5 Ultrasound: European Debut at ECR 2025



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### AI-Powered Ultrasound: Transforming Imaging with Practical Innovation

Ultrasound technology is advancing rapidly, and the latest systems are integrating practical AI to enhance efficiency, accuracy, and usability. With workforce shortages and growing patient demand, these innovations are reshaping medical imaging for professionals worldwide.

### Addressing Global Challenges in Ultrasound

Across regions—from India to Europe and the US—healthcare professionals face common obstacles: workforce shortages, sonographer fatigue, and inconsistent imaging outcomes. AI-driven ultrasound systems are designed to tackle these issues by streamlining workflows, reducing strain on operators, and ensuring consistent, high-quality imaging regardless of experience level.

### Practical AI: Enhancing Workflow and Precision

One key breakthrough is the Siemens-Healthineers Acuson Sequoia 3.5 Ultrasound *Abdomen AI*, which automates capturing and measuring abdominal anatomy. This significantly reduces scan times, allowing clinicians to spend more time with patients or increase daily exam capacity. A recent user study found that these AI-driven features can save up to 50 minutes daily, translating into greater efficiency and improved patient throughput.

AI algorithms also address variability in sonographer expertise. By standardising imaging and automating measurements, these systems ensure uniform results—whether performed by a seasoned professional or a less experienced user. This consistency reduces patient callbacks and enhances radiologist confidence in diagnosis.

### Reducing Ergonomic Strain and Injury

Sonographers frequently experience work-related injuries due to repetitive hand movements. AI-powered systems significantly reduce manual input—by up to 89%—minimising strain on the shoulders, neck, and hands. This advancement improves the working conditions for sonographers and ensures a more sustainable workforce by preventing injury-related absences.

### High-End Imaging for Comprehensive Applications

The latest premium ultrasound systems incorporate AI-driven tools for multiple specialities, including cardiology and musculoskeletal imaging. Features like *AI Heart* automate cardiac measurements, while advanced transducers deliver high-resolution imaging for breast and MSK applications. These versatile systems are designed for hospital-wide use, ensuring accessibility to high-quality imaging across departments.

### Democratising Ultrasound with Intuitive AI

User experience is at the core of these AI-powered systems. Intuitive touch interfaces simplify operation, displaying only the relevant options for each exam type. This design reduces complexity, enabling faster adaptation for new users while maintaining expert-level precision.

AI also assists real-time protocol compliance, guiding users through standardised scan procedures. This ensures that all necessary images and measurements are captured correctly, reducing errors and improving diagnostic accuracy.



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## Conclusion

AI-driven ultrasound is more than just a buzzword—it is a practical solution developed in collaboration with healthcare professionals to solve real-world challenges. By enhancing efficiency, improving consistency, and reducing ergonomic strain, these innovations are setting a new standard in medical imaging, ultimately leading to better patient outcomes and optimised workflows across healthcare facilities.

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