GE HealthCare launches CleaRecon DL, introducing AI-based 3D reconstruction to the interventional suite

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- CleaRecon DL receives 510(k) clearance and CE mark, paving the way for clinicians to use 3D image guidance technologies to their full potential with the goal of achieving better clinical and operational outcomes
- AI-driven solution advances image quality and improves clinical confidence, encouraging adoption of cone-beam computed tomography

CHICAGO--(BUSINESS WIRE)--May 15, 2025-- GE HealthCare (Nasdaq: GEHC) today announced the launch of CleaRecon DL, technology powered by a deep-learning algorithm, to improve the quality of cone-beam computed tomography (CBCT) images. This artificial intelligence (AI)-driven solution is designed to remove streak artifacts caused by the pulsatile nature of blood flow in the arteries and changes in the distribution of contrast during CBCT acquisitions in liver, prostate, neuro, and endovascular aortic repair procedures. CleaRecon DL recently received U.S. FDA 510(k) clearance and CE mark and will be available for use on the Allia™ platform[1].

CBCT is used in interventional suites to provide cross-sectional imaging during procedures. However, the quality of CBCT reconstructed images may be diminished due to artifacts resulting from vessels' pulsatility, which can reduce image clarity and accuracy. These limitations can impact the confidence in CBCT image interpretation and its adoption in routine clinical practice.[2] Despite these challenges, CBCT remains crucial in interventional procedures for its ability to provide comprehensive visualization of anatomical structures and may enhance procedural accuracy.

"The introduction of CleaRecon DL represents a leap forward in the interventional suite and for the advancement of CBCT. By improving image quality and reducing artifacts, this technology can empower clinicians to perform procedures with greater precision and confidence," said Arnaud Marie, General Manager, Interventional Solutions at GE HealthCare. "This solution builds on our portfolio of tools aimed at improving the user experience and workflow efficiency, enabling clinicians to deliver more accurate and effective interventions for enhanced patient outcomes."

Deep learning is an AI technology that has become the state-of-the-art machine learning technique for image processing and is trained to output data and perform specific tasks.[3] It is based on population representative data collection and thorough tests with clinical domain experts. CleaRecon DL harnesses deep-learning algorithms designed to provide clearer and more accurate imaging, enabling healthcare professionals to make better-informed decisions and improve their patient care. During clinical validation testing, a recent survey noted that in 98% of cases, CBCT images reconstructed with CleaRecon DL are clearer than conventional CBCT images. This technology was also shown to improve CBCT image interpretation confidence in 94% of cases.[4]

"CleaRecon DL takes CBCT to the next level, enabling clinicians to confidently use CBCT on patients with tools that help us provide the highest quality imaging and treatment across a wide range of clinical scenarios," said. Dr. Charles Nutting[5], Interventional Radiologist, Image Guided Therapy in Denver, Colorado. "This advancement improves our ability to perform precise interventions, with less manipulation of the image and eliminates artifacts that have historically hindered image clarity, ultimately helping improve the care clinicians can provide to patients."

CleaRecon DL is available in the United States and European Union.[6] CleaRecon DL on the Allia platform will be showcased at the Global Embolization Symposium & Technologies (GEST) 2025 Annual Meeting taking place on May 15-18, 2025 in New York. For more information on CleaRecon DL, please visit: https://www.gehealthcare.com/products/image-guiding-solutions/cone-beam-computed-tomography.

About GE HealthCare Technologies Inc.

GE HealthCare is a trusted partner and leading global healthcare solutions provider, innovating medical technology, pharmaceutical diagnostics, and integrated, cloud-first AI-enabled solutions, services and data analytics. We aim to make hospitals and health systems more efficient, clinicians more effective, therapies more precise, and patients healthier and happier. Serving patients and providers for more than 125 years, GE HealthCare is advancing personalized, connected and compassionate care, while simplifying the patient's journey across care pathways. Together, our Imaging, Advanced Visualization Solutions, Patient Care Solutions and Pharmaceutical Diagnostics businesses help improve patient care from screening and diagnosis to therapy and monitoring. We are a $19.7 billion business with approximately 53,000 colleagues working to create a world where healthcare has no limits.

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[1] CleaRecon DL is an option in 3DXR designed to be used with Allia IGS 5 and Allia IGS 7 systems and requires AW workstation with Volume Viewer.

[2] Matthias Barral, Olivier Chevallier, Francois H. Cornelis, Perspectives of Cone-beam Computed Tomography in Interventional Radiology: Techniques for Planning, Guidance, and Monitoring, Techniques in Vascular and Interventional Radiology, Volume 26, Issue 3, 2023, https://doi.org/10.1016/j.tvir.2023.100912.

[3] Dede, A., Nunoo-Mensah, H., Tchao, E. T., Agbemenu, A. S., Adjei, P. E., Acheampong, F. A., & Kponyo, J. J. (2025). Deep learning for efficient high-resolution image processing: A systematic review. Intelligent Systems with Applications, 26, 200505. https://doi.org/10.1016/j.iswa.2025.200505

[4] GE HealthCare data on file.

[5] Dr. Nutting is a paid consultant for GEHC and was compensated for participation in this testimonial. The statements by Dr. Nutting described here are based on his own opinions and on results that were achieved in his unique setting. Since there is no “typical” hospital and many variables exist, i.e. hospital size, case mix, etc. there can be no guarantee that other customers will achieve the same results.

[6] CleaRecon DL may not be available in all countries. Contact your GEHC sales representative for more information.

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