GE Healthcare

LOGIQ S8 XDclear Interventional Procedures

Guide needles with confidence and speed

Clinical Challenge

Ultrasound imaging in the interventional setting assists clinicians in guidance of needles and ablation devices, localization of anatomy and pathology, and monitoring of procedures. To support confidence in interventions, accuracy and speed are essential.

GE Solution

The LOGIQ™ S8 XDclear™ system provides superb, high resolution images for clear visualization of soft tissue organs. The portability of the system along with its innovative navigation and workflow tools are designed to help increase the efficiency of interventional procedures.

Superb Imaging

S-Agile Acoustic Architecture – This dedicated general imaging technology from GE Healthcare uses dynamic models of the human body, based on clinical data, to help clinicians acquire images on a broad spectrum of patients. The result is superb images with just a few keystrokes.

Choice of high performance probes – The system offers both E-Series and XDclear probes, which are GE's highest performing probes. Advancements in acoustic engineering help increase penetration and deliver high definition resolution. The system offers three new specialty probes including:

- **C2-6b-D** – This notched probe enables imaging of the full field of view (FOV) for needle placement.
- **C2-7-D** – This microconvex probe has a wide FOV that reduces blind spots, particularly in intercostal areas.
- **L3-9i-D** – The low profile of this T-shaped probe makes it easy to maneuver during surgical procedures.

Liver mass, L3-9i-D
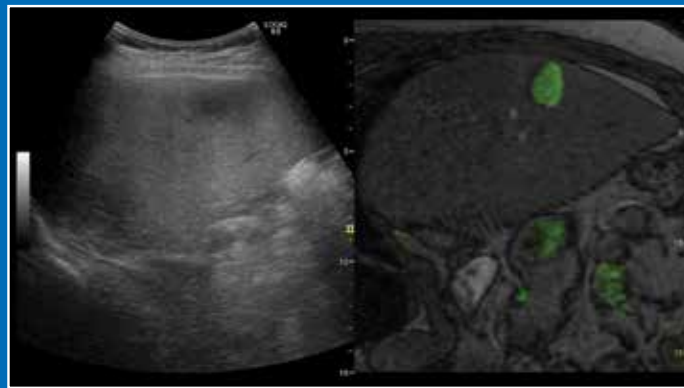
Fusion imaging of the liver, C1-5-D

Simplified Workflow

Portability and immediate boot-up – The sleek, lightweight LOGIQ S8 XDclear system easily maneuvers in tight spaces, making it well-suited for crowded interventional radiology environments. The Power Assistant feature provides battery power during transport. When needed, simply roll the system into the lab, plug back in, and you're ready to begin scanning – there's no wait for system boot-up.

Auto TGC – Automatically optimizes image brightness and contrast, enabling excellent image quality without slowing down procedures.

Compare Assistant – Enables clinicians to easily view a prior study – ultrasound, mammography, CT or MR – and current images together in real time via a split screen on the monitor, helping to improve confidence and exam efficiency.

Multi-modality Query Retrieve – Saves time by enabling one-click access to previous exams for side-by-side comparison with the live ultrasound image.

Scalable to Your Needs

Volume Navigation – The LOGIQ S8 XDclear system offers sophisticated navigational tools including:

- **Fusion Imaging** – Merge real-time ultrasound with a volume DICOM® dataset (CT, MR, PET/CT, CBCT, SPECT and 3D CEUS) to help increase precision and accuracy of image-guided interventional procedures. This feature also enables auto-registration of CT and MR images.
- **Needle Tip Tracking** – A re-usable, magnetic sensor embedded in the tip of a needle provides a live display of position and orientation to help users navigate interventional procedures. A Virtual Tracking tool is also available to see a projected view of the needle during procedures.
- **GPS-like Tracking** – Visually track position during a scan using GPS-like technology, and mark selected points of interest to help save time and enhance confidence.

- **Auto registration** – Works with omniTRAX™ Active Trackers in conjunction with US/CT, US/MR and US/US to manage patient motion, breathing, and transmitter movements with increased registration accuracy. Auto Registration's one-click operation enhances procedural efficiency in busy IR environments.

B Steer + – Users can see the needle advance in real time with no image processing delays. This helps to improve the speed and accuracy of image guided procedures, such as thyroid and liver biopsies and musculoskeletal injections.

Shear Wave Elastography – By enabling non-invasive 2D quantitative assessment of tissue stiffness, this tool can help in disease evaluation and follow-up.

- Multiple measurement ROIs in the Shear Wave image – Helps increase exam speed by reducing the number of acquisitions needed for a comprehensive exam.
- Flexible display options – User-programmable display of tissue in kilopascals (kPa) or velocity in m/s and the choice of single or dual view display.
- Ability to change the size and the depth of the region of interest (ROI).

Contrast Enhanced Ultrasound (CEUS)[1] – Provides visualization and confidence in pre- and post-ablation assessment of lesion vascularity.

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[1] Not available for sale in the United States. Not cleared by the United States FDA. In the USA, contrast is cleared by the FDA for Cardiac-LVO imaging only.

Imagination at work

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Sept 2015
JB33862XXa