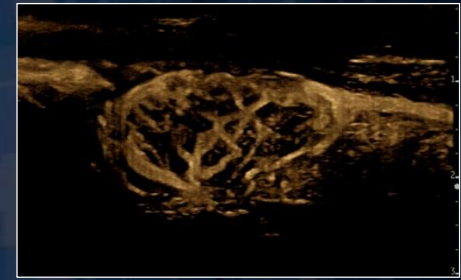
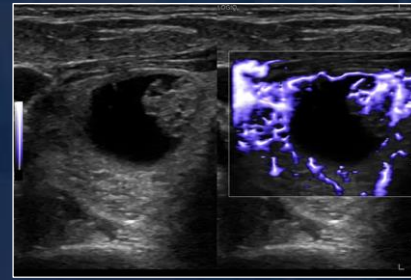
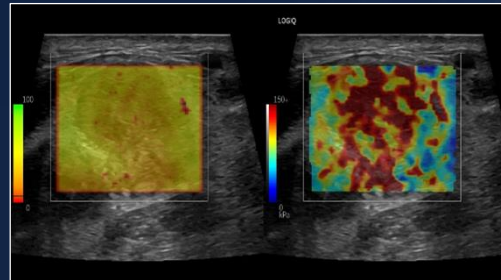


Head & Neck Solutions

with LOGIQ™ E10 Series



2020



LOGIQ™ E10 Series along the care pathway



Screening

B-Mode Quality cSound Imageformer delivers a focus by pixel combined to the new SRI levels

Choice of high-performance probes Select from E-Series and XDclear™ probes, including high-frequency and matrix probes designed for small parts applications.

- ML6-15-D (matrix probe)
- L2-9-D and C3-10-D (XDclear™ probe)
- L8-18i-D/L6-24D (high frequency probe)

DICOM SR/linked image Structured reporting formats feature embedded measurements and link directly to ultrasound images to add efficiency and precision to workflow.

Auto Lesion Segmentation This AI-based productivity tool automatically traces nodule boundaries and generates two-dimensional measurements with just a few keystrokes.

Raw Data Expanded capabilities enable users to apply a wide variety of image processing and quantification after the exam and while using Compare Assistant. This allows the operator to extract and reanalyze information without extending exam time.



Diagnosis

Microvascular Imaging (MIV) High-definition flow mode helps clinicians identify tiny vessels in lesions and lymph nodes.

2D Shear Wave Elastography Enables non-invasive assessment of lesion stiffness in thyroid with a Shear Wave Elastography Quality Indicator to support confident measurements. Strain elastography is also available for semiquantitative tissue assessment.

B-Steer+ enables enhanced visualization of the needles structure during interventional procedures, helping improve user confidence. (biopsy procedure)

Thyroid Productivity Package Enhances speed and standardization in lesion reporting by automating the labeling, measuring, and description of nodule lesions, lymph nodes and parathyroid, to enhance structured reporting, auto-populating exam findings to organize data in a standardized format and creating a summary report

Contrast-Enhanced Ultrasound Get a clear picture of tissue structure and suspicious mass vascularity by optimizing the balance between penetration and resolution for improved contrast sensitivity.



Treatment & Follow-up

Volume Navigation with Fusion Imaging and Needle Tracking Merge real-time ultrasound with a volume DICOM® MR/CT dataset to facilitate fusion guidance of biopsies/RFA of masses.

One click Query/Retrieve Query Retrieve puts an end to running back and forth to view previously acquired PET, MR, CT, mammography or ultrasound images.

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



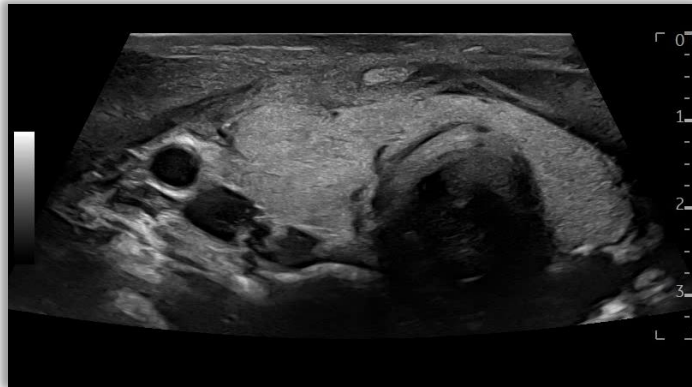
LOGIQ™ E10 Series – 2D Imaging Quality

cSound™ Imageformer

Each pixel is focused

High spatial resolution along the image

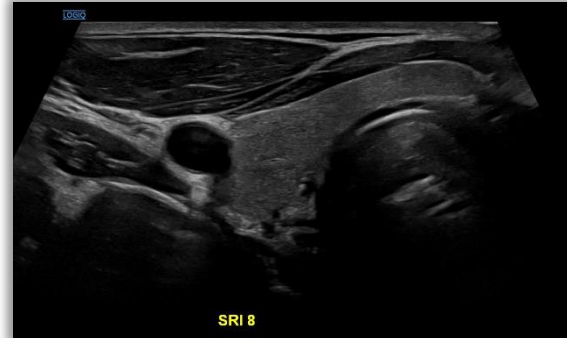
Better temporal resolution during live scanning



New SRI levels

High flexibility into the speckle noise reduction.

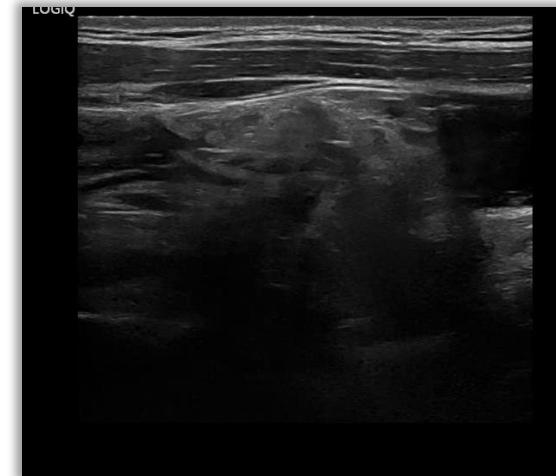
Improve the **contrast resolution** and offer an image close to the anatomical slice.



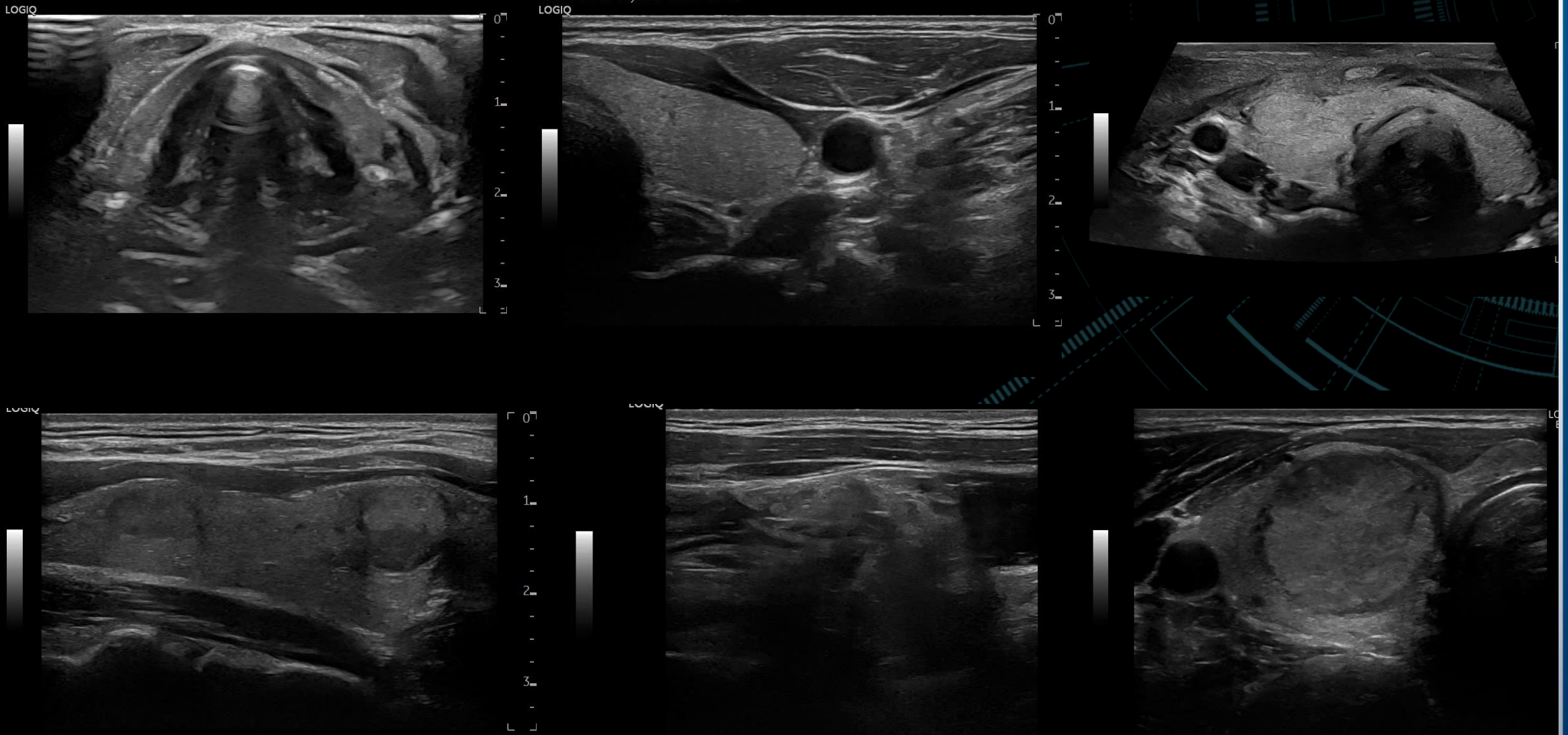
Matrix Technology

Higher resolution into the elevation plan with more than 1000 elements

Better Homogeneity along the depth



LOGIQ™ E10 Series – B-Mode with ML6-15-D



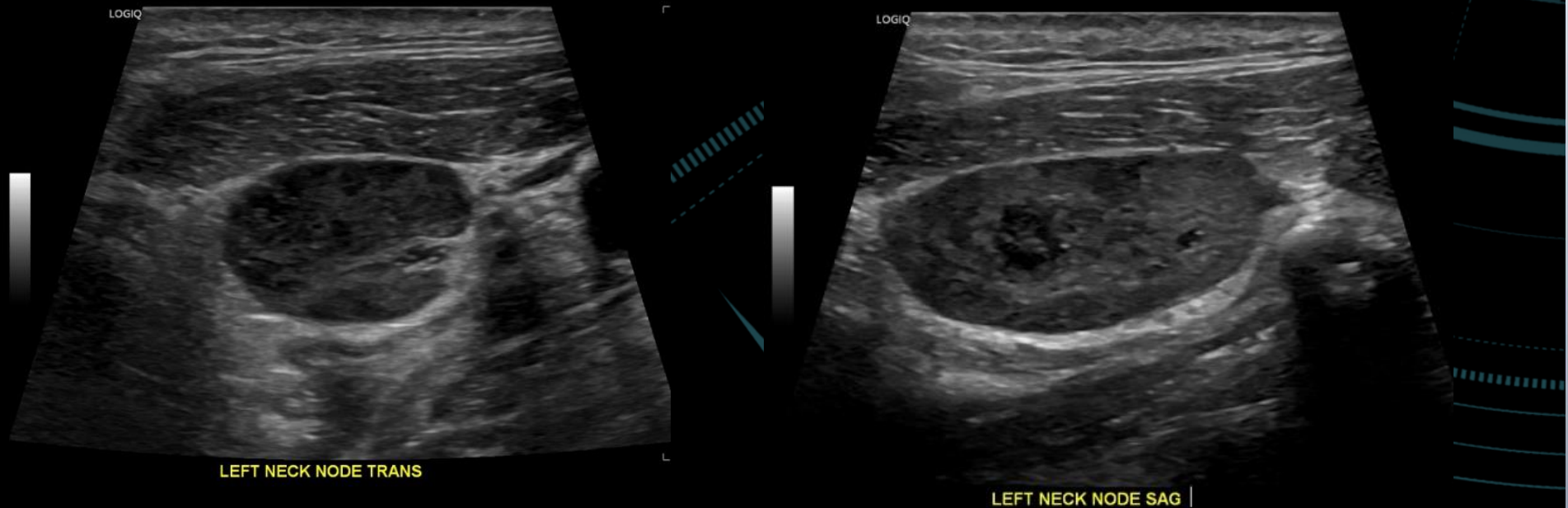
Screening

LOGIQ™ E10 Series – B-Mode with L8-18i-D and L6-24-D

with L6-24-D



with L8-18i-D



Screening

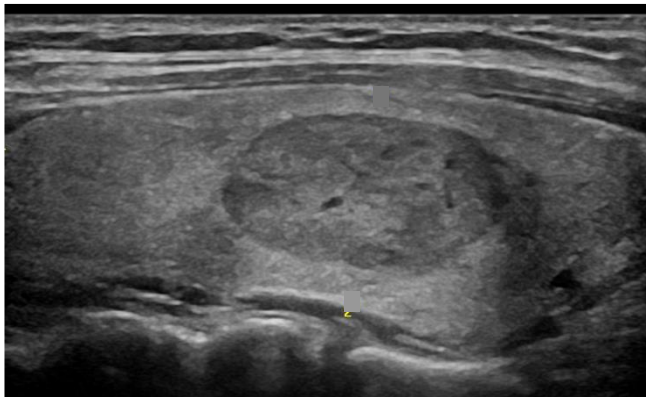
Auto Lesion Segmentation

Harnessing the power of AI



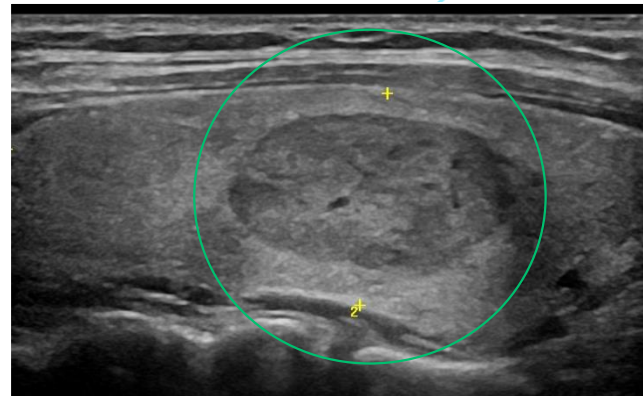
Screening

User identifies a thyroid nodule



Benefit: Users scan as they normally would

User clicks on the nodule and simply expands a graphical circle to encompass it

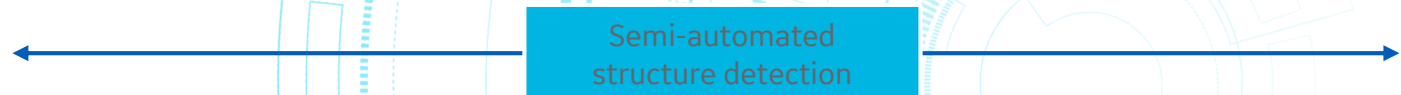


Benefit: User identifies a nodule with a single click

The algorithm segments the nodule, providing a trace and extents of the nodule



Benefit: Calipers are automatically placed to measure the nodule, saving keystrokes and providing consistency



Thyroid Productivity

Help to describe the nodule

Thyroid-specific measurement package that easily enables labeling, measuring and describing nodules, lymph nodes and parathyroid.

Multiple measurements can be organized into a convenient worksheet. Send results via DICOM[®] SR.

The screenshot displays the GE ultrasound software interface for thyroid nodule analysis. On the left, a 'Rt Nodule' description panel lists characteristics: Shape (Round), Margin (Well-defined with partial halo), Composition (Solid), Vascularity (Increased), Calcification (No calcification), and a comment 'BIOPSY PERFORMED 2018'. The main interface shows a 'Measure L/H/W' tool with a 'Show Features' button. A 'Nodule #' dropdown is set to '1/1'. A 'V Ratio' dropdown is set to 'V Ratio(Circle)'. A 'Velocity' button is also visible. On the right, a 'Thyroid' panel shows 'Rt Nodule 1' with measurements: L, H, W, V Ratio, and Velocity. A 'DICOM' panel at the bottom right displays: '1 Rt Nodule W 0.86 cm' and 'Rt Nodule Vol 0.26 ml'. The background shows a thyroid ultrasound image with a nodule highlighted.



Elastography

Assess the tissue stiffness

2D Shear Wave elastography technique (visual and quantitative information in a color coded box)

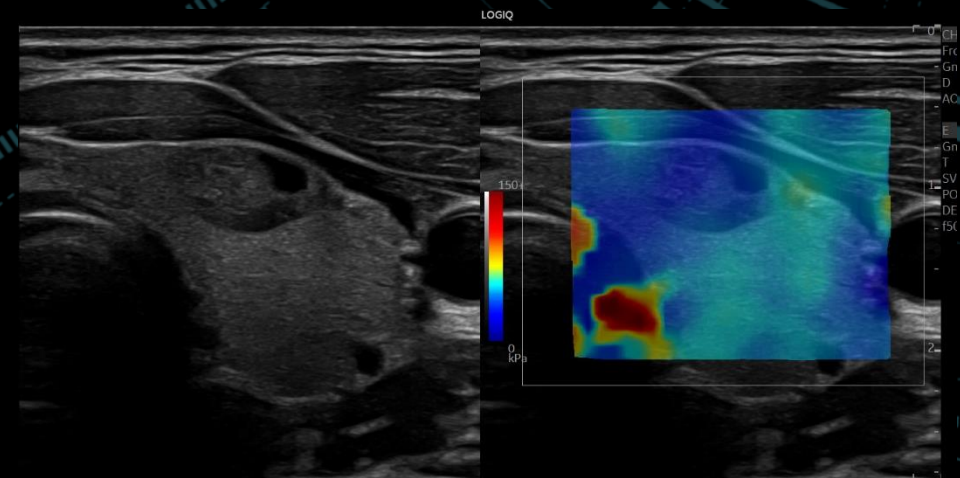
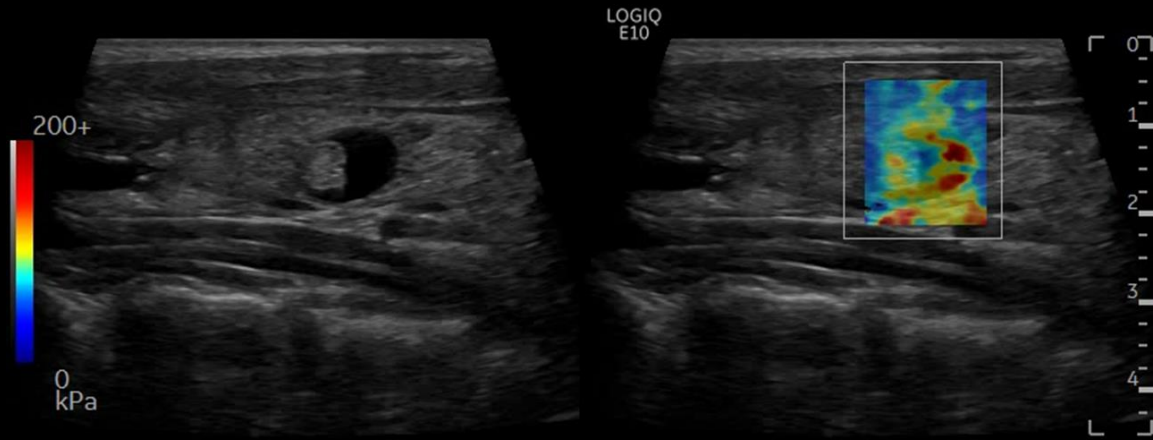
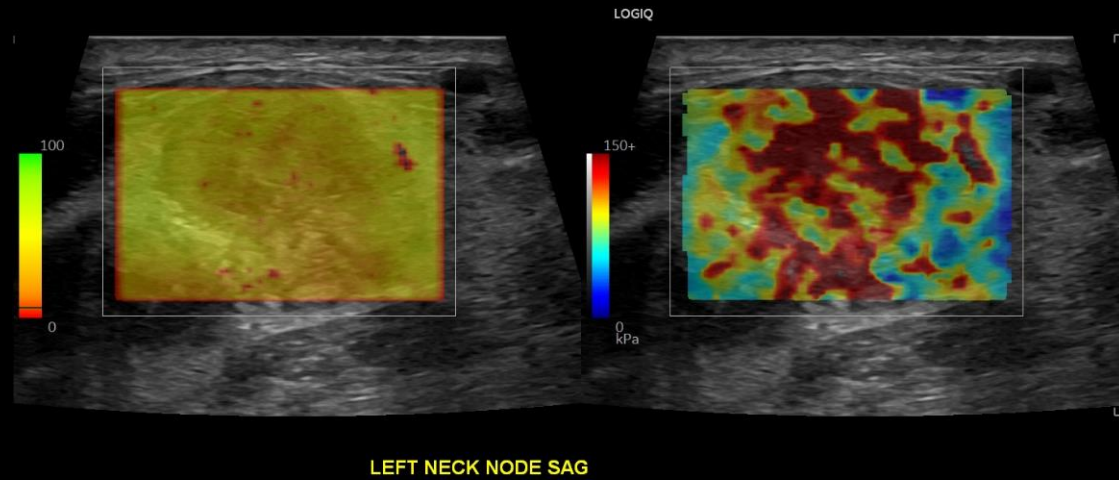
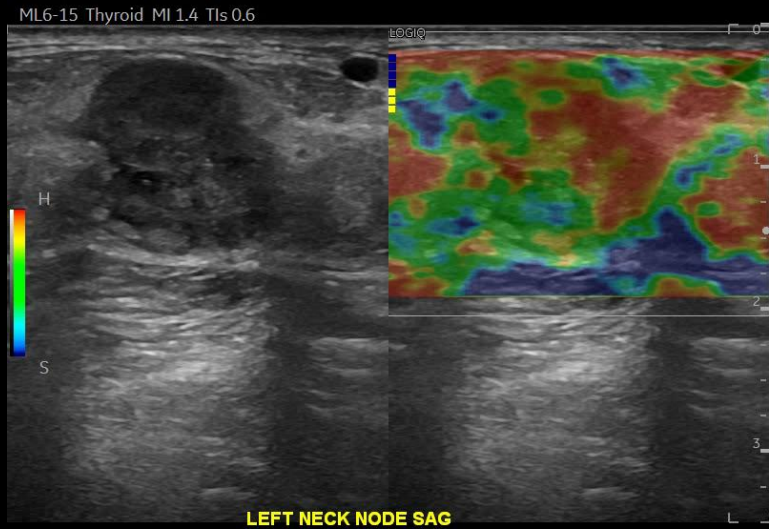
- Available on ML6-15D and L2-9-D
- User selectable color maps
- Now with **Quality Indicator**
- **Adjustable Color Box** and **ROI depth** and **size**
- Multiple measurements within a single shear wave image
- **Auto sequencing feature** for an automatic placement of measurement ROI within image
- Dual or Single display option
- Measurements in kPa or m/s or both
- Mean, Median, IQR and STD display for multiple measurements
- Fast acquisition time to reduce motion artifacts
- **Penetration mode** for technically challenging cases
- Summary worksheet
- Supporting GE Raw Data
 - Measurements can be done on acquired clips after the exam is ended
- Working in combination with Volume Navigation and Needle Tracking
 - Comprehensive tool for liver disease management



LOGIQ™ E10 Series - Strain and 2D SWE Elastography



Diagnosis



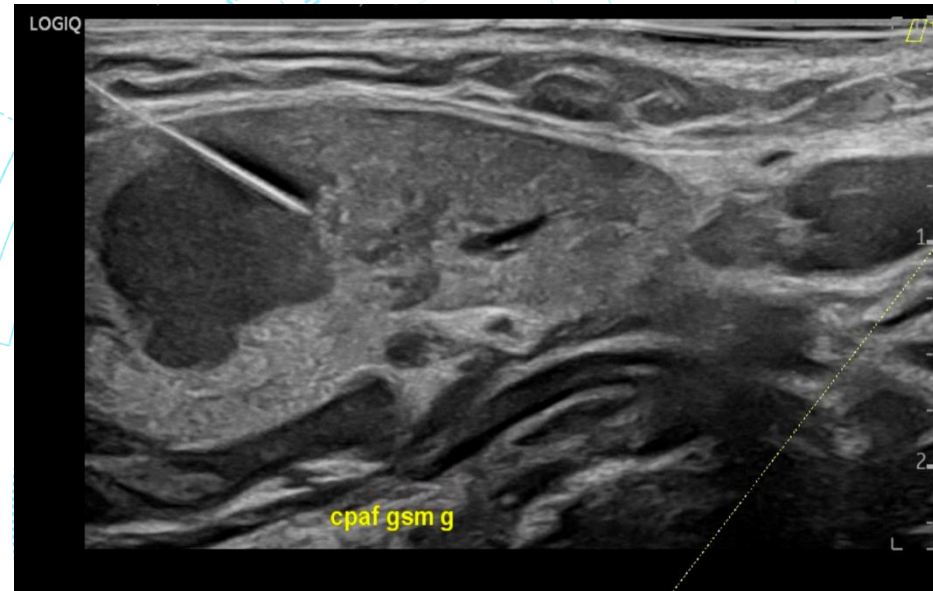
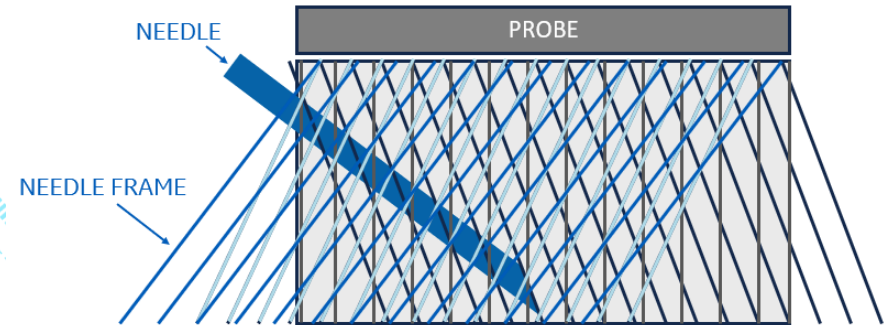
B-Steer+

Enhance your needle visualization during biopsy

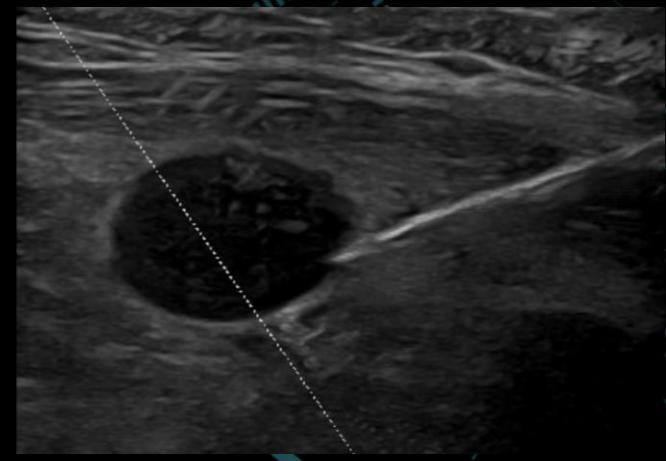
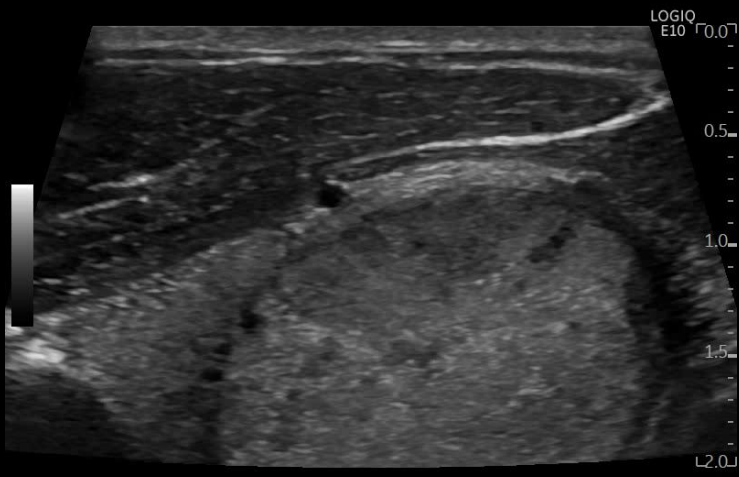
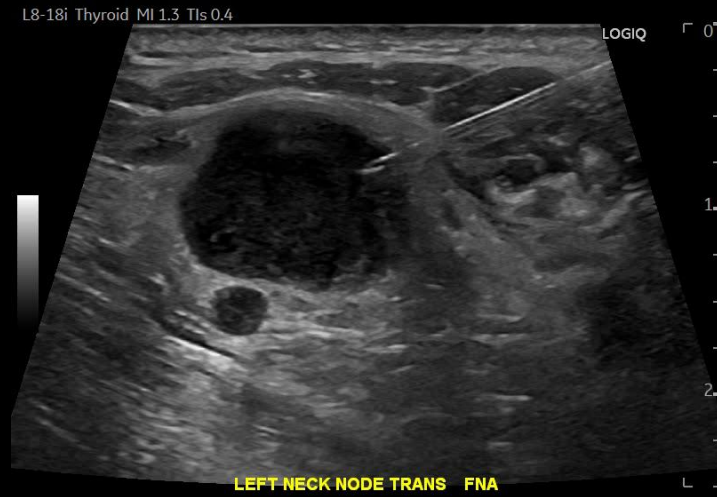
B-Steer+ feature enables enhanced visualization of the needles structure during interventional procedures, helping improve user confidence.

Highlights

- Up to 12 selectable steering angles available (six each direction)
- Separate gain control for needle reflection
- Available on all linear transducers
- Quick one-button operation



LOGIQ™ E10 Series – FNAC of the thyroid nodule

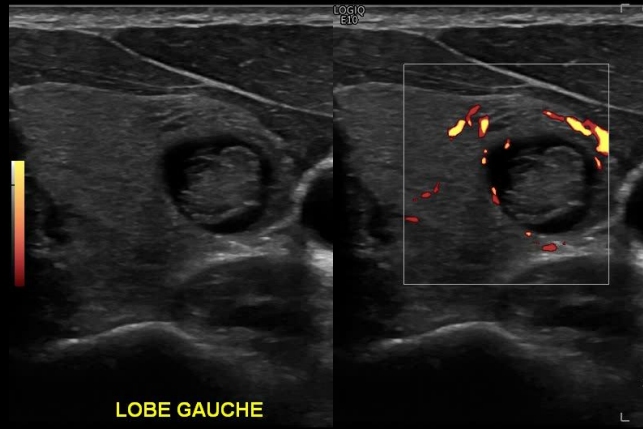
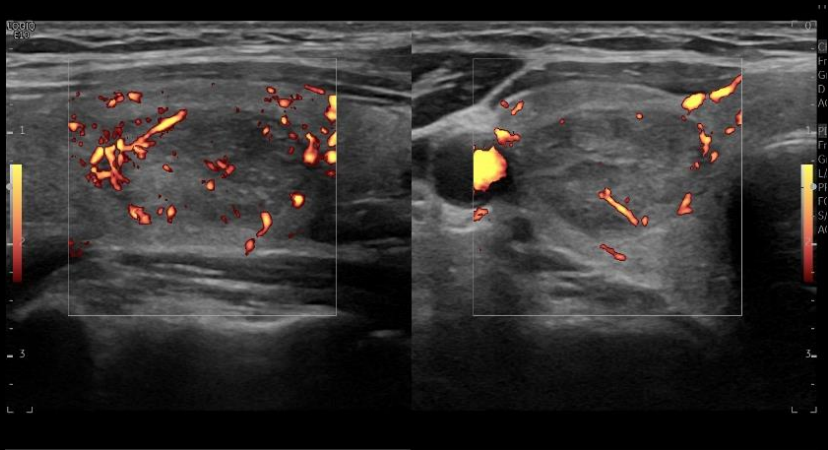


Diagnosis

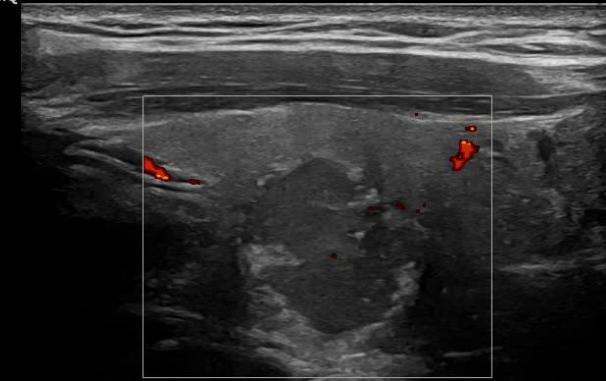
LOGIQ™ E10 Series – Flow Modes (PDI and CFM)



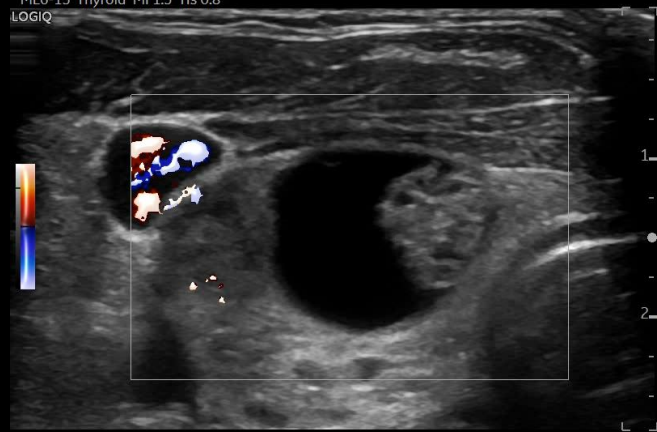
Diagnosis



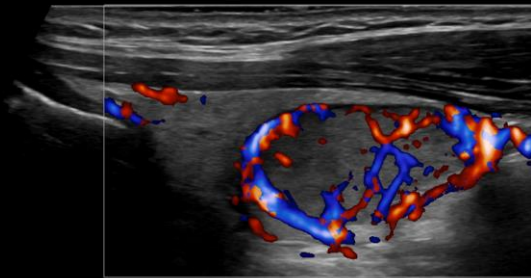
ML6-15 THYROID_2 MI 1.3 TIs 0.5
LOGIQ



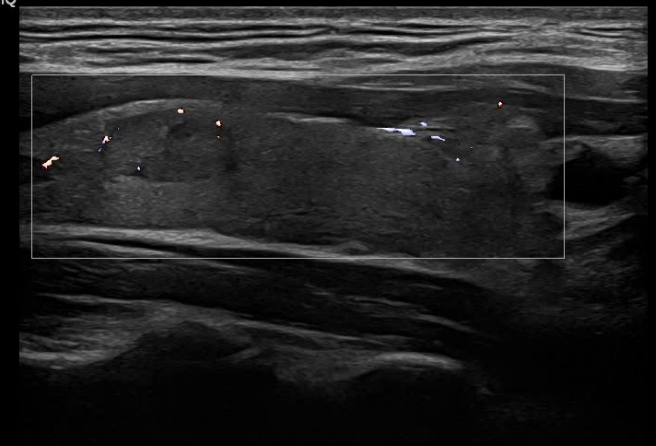
ML6-15 Thyroid MI 1.3 TIs 0.8
LOGIQ



LOGIQ
E10



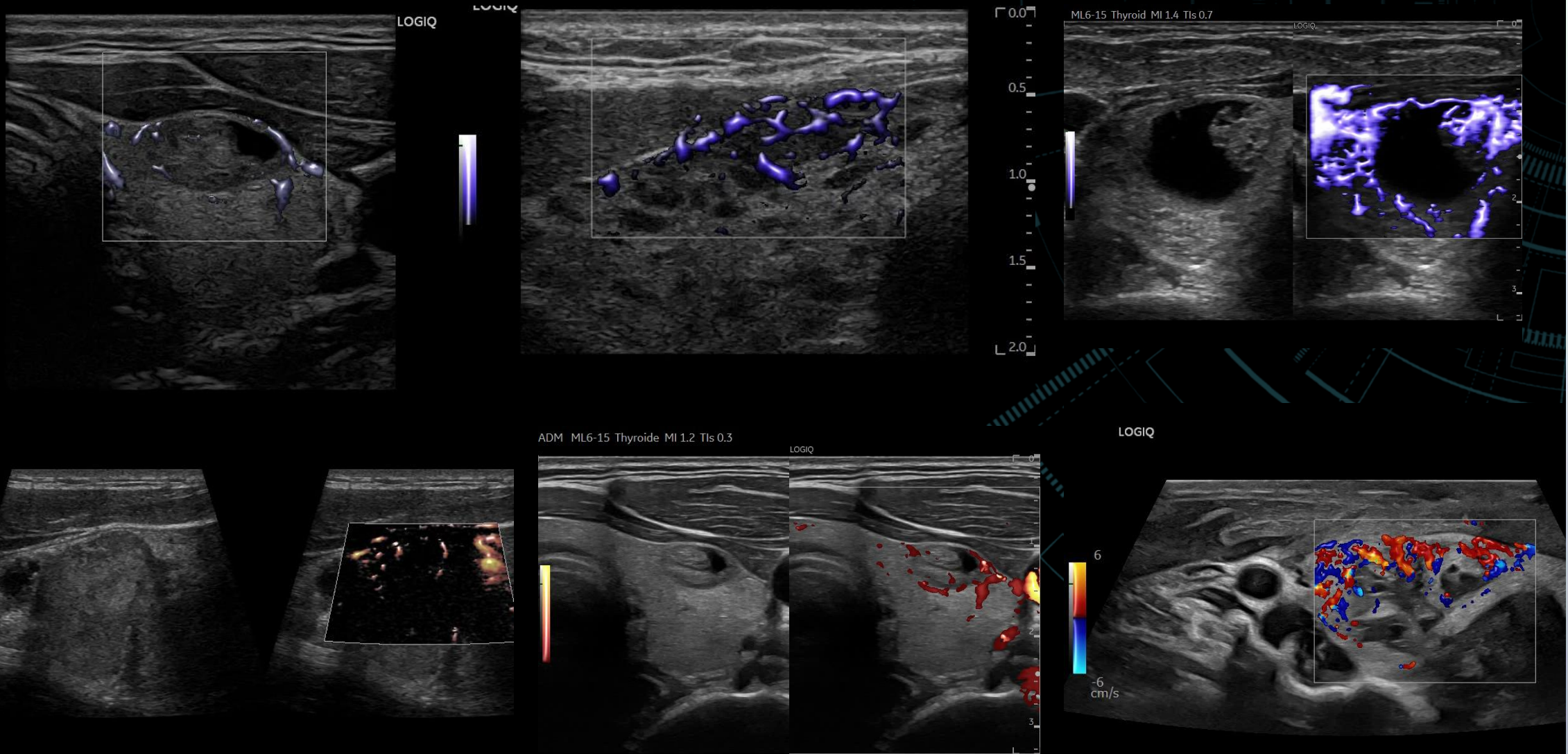
ML6-15 THYROID_2 MI 1.3 TIs 0.4
LOGIQ



LOGIQ™ E10 Series– MVI + Radiantflow™ and CFM/PDI + Radiantflow™



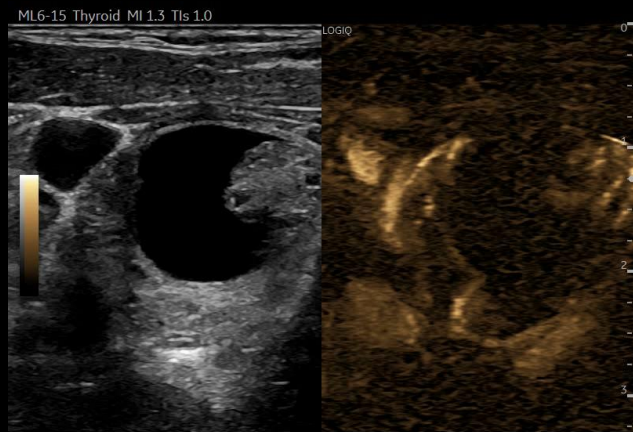
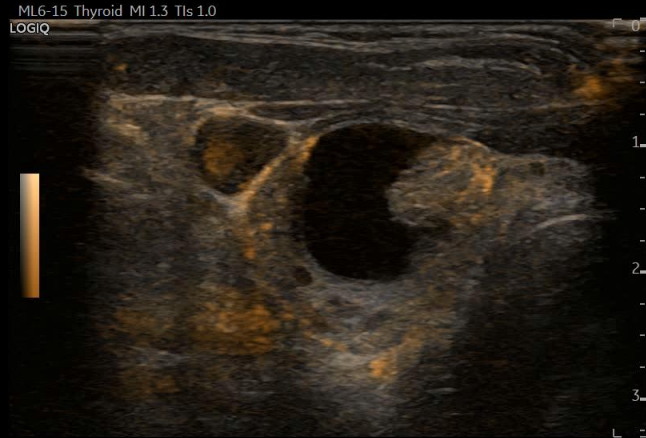
Diagnosis



LOGIQ™ E10 Series– B-Flow and CEUS Modes



Diagnosis



Thyroid MI 0.10
T1: 0:10

Thyroid MI 0.10
T1: 0:17

Volume Navigation

Fusion-navigation and Needle Tracking

Match Real Time Ultrasound with a Volume DICOM® Dataset from MR/CT modalities

- Advantages of US Real Time Imaging associated with High spatial/contrast of MRI/CT
- Help increase precision and accuracy of imaging-guided interventional procedures like biopsy and RFA
- Help identify lesions poorly visualized with US thanks to GPS
- Adequate visible lesions with US, but coexisting with difficult targets



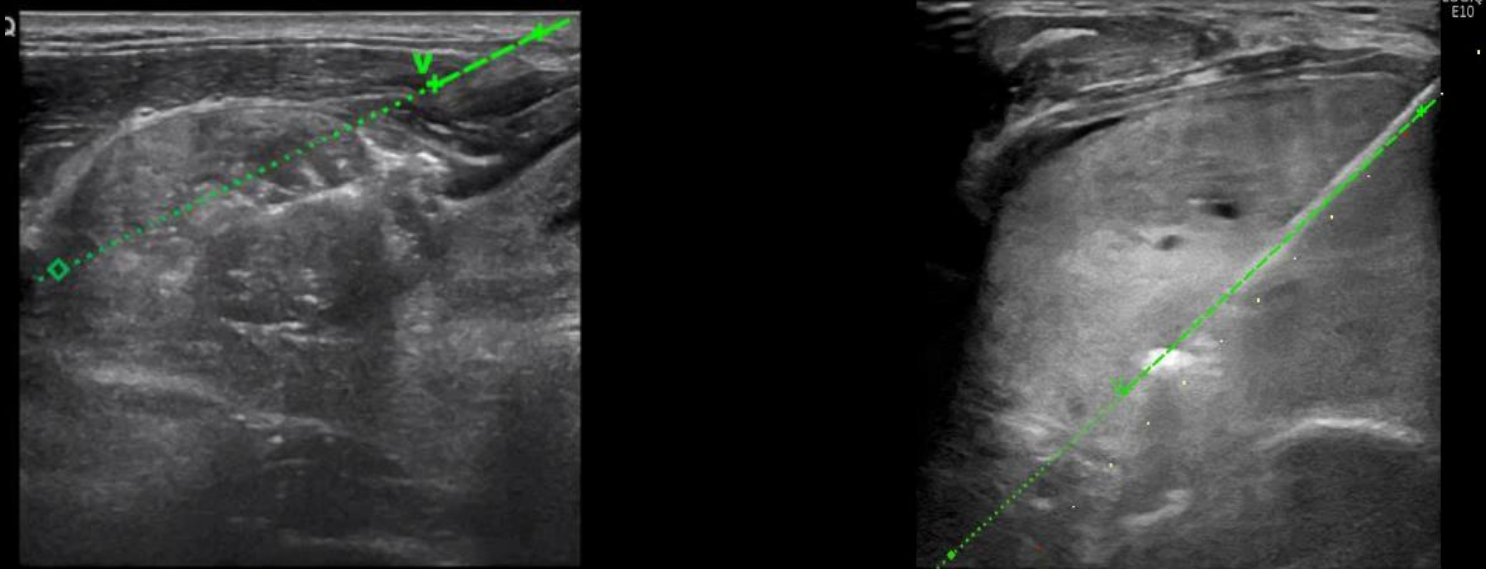
2018



Treatment and Follow-up

LOGIQ™ E10 Series – Virtual Guidance and Image Fusion

- Electromagnetic sensor attached to the radiofrequency needle. Definition of the tip of the needle.
- Tracking of the trajectory and the tip of the needle in space (in the plane or out of plane).
- Valuable aid for complex needle angulation (<math><60^\circ</math>).



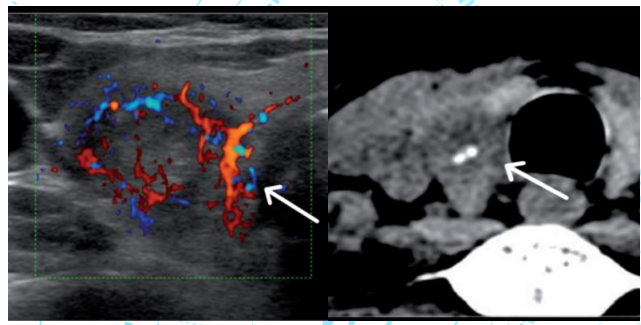
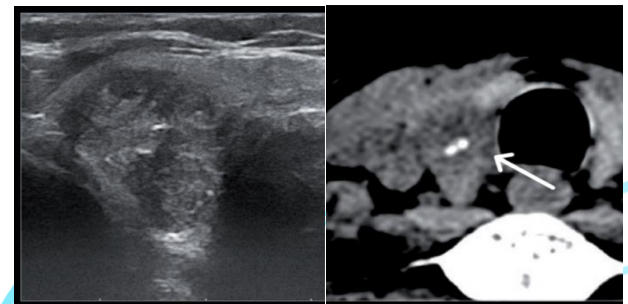
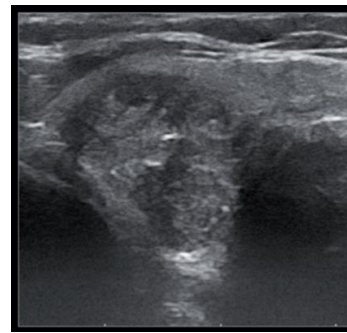
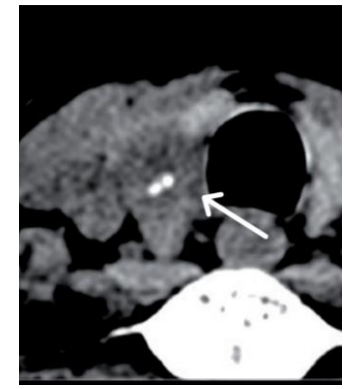
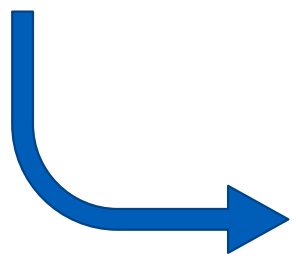
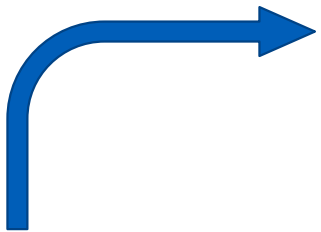
One click Query/Retrieve

View side-by-side with a real-time ultrasound image



Treatment and Follow-up

The feature allows to retrieve any MR /CT dataset from PACS onto LOGIQ E10 that can help to find the most relevant view of the anatomical area in exam



Quickly get to an area of interest during Ultrasound exam



Compare Assistant

Help for an effective monitoring of progressive pathologies



2018



Treatment and Follow-up

1

Effective temporal tracking

The tool offers the ability to compare the US examination of the day to a previous one, ideal for monitoring the evolution of lesions over time

2

Saving Time during exam

When opening the previous exam, comparison is strict, since the imaging parameters are also included

3

Facilitates patient explanations

The comparison helps the radiologist in explaining the course of the pathology directly during US exam



