

## LVivo Cardiac Toolbox on NeuEcho Empower Ultrasound Users with AI

Neusoft has partnered with DiA to make its AI-based cardiac ultrasound LVivo Toolbox available on the NeuEcho ultrasound system.

Cardiac ultrasound imaging analysis is usually done through either visual estimation or manually, making the process subjective, error-prone and highly dependent on the user's experience.

### LVivo AI solutions – Immediate results, in just one click

LVivo cardiac solutions provide automated AI-based analysis to support ultrasound users with varying levels of experience, resulting in reduced variability and increased efficiency and accuracy throughout the analysis process.



#### Objective & Automated

vs. subjective manual or visual analysis, supports clinicians with varying levels of experience



#### Shorter measurement time

Quick results, reduces load on medical staff and bottlenecks



#### At point-of-care

Easy patient monitoring at bedside and minimized risk of exposure to infection



#### Strain reimbursement

Physicians in the USA can report and bill for strain as of Jan 2020 (CPT code +93356)



**No ECG required** – to run LVivo AI analysis

# LVivo EF

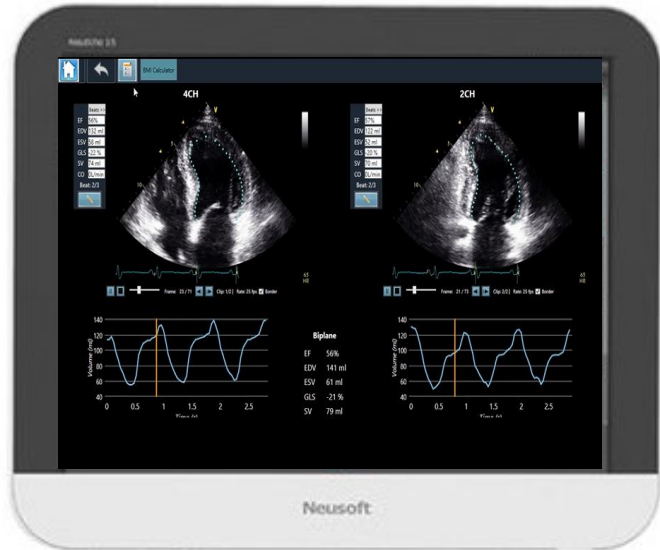
## Quantified Ejection Fraction Analysis in One Click

**Ejection fraction (EF)** is a key indicator for global function of the left ventricle (LV) and a key driver of clinical decisions.

### Clinical value:

Measured in patients presenting with:

- shortness of breath
- suspected heart failure
- chest pain
- cardiogenic shock



### LVivo EF

After acquiring 4CH and/or 2CH, LVivo EF immediately delivers analysis, supporting single clips and biplane analysis for each beat separately to present:

- Edge detection of the LV endocardial border in motion
- Ejection Fraction (EF)
- End-Systolic Volume (ESV)
- End-Diastolic Volume (ED)
- Global Longitudinal Strain (GLS)
- Stroke Volume (SV)

### Key features

- Beat Selection
- Manual border adjustment
- Manual initiation in case of failure

"The use of LVivo reduces the variability associated with subjective visual ultrasound analysis and can accurately and effectively support users in their decision-making process."



**Ziv Dadon, M.D**  
Cardiology Department

# LVivo AI solutions on the frontline

## How COVID-19 affects the heart

Recent data from COVID-19 frontlines show that heart issues were a frequent cause of death for 50% of COVID-19 patients.<sup>1</sup>

ASE and EACVI recommend performing limited echo exams on COVID-19 patients at point-of-care, to monitor patients' Left Ventricle and detect dysfunction.<sup>2,3</sup>

LVivo AI solutions help to:



Automated workflow enables quick analysis of cardiac function



Minimized patient contact and risk of infection



Shorter measurement time reduces patient bottlenecks

## The new normal in POCUS

As the number of COVID-19 cases decrease, POCUS procedures will increase. New protocols recommend minimizing contact with patients and shortening scan time to minimize risk of infection.

## LVivo Toolbox automates the cardiac analysis process, with objective and reproducible results

"LVivo EF makes it possible for clinicians to quickly, accurately and safely analyze COVID-19 patients' cardiac function at bedside."

**Evan (Avi) Alpert, M.D**  
Department of Emergency Medicine



1. Shi S, Qin M, Shen B, et al. Association of Cardiac Injury With Mortality in Hospitalized Patients With COVID-19 in Wuhan, China. *JAMA Cardiol*. Published online March 25, 2020. doi:10.1001/jamacardio.2020.0950
2. ASE statement on COVID-19, March 2020
3. COVID-19 pandemic and cardiac imaging: EACVI recommendations on precautions, indications, prioritization, and protection for patients and healthcare personnel, *European Heart Journal - Cardiovascular Imaging*, April 2020