



Routinely detecting LV dysfunction in clinical practice

AutoSTRAIN automated GLS measurement

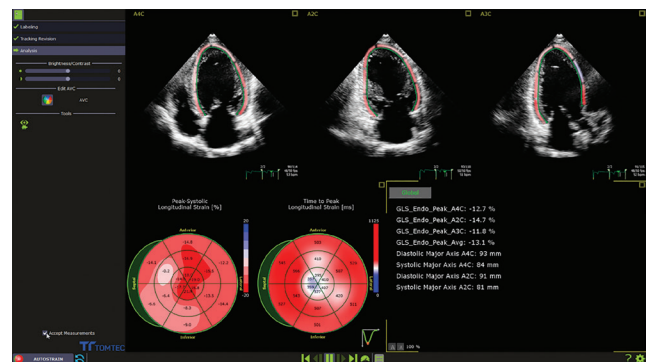
The value of GLS

Global longitudinal strain (GLS) by echocardiography is increasingly recognized as a more effective technique than conventional ejection fraction (EF) in detecting subtle changes in LV function.

GLS is especially important in monitoring heart function change in specific patient populations such as cardio-oncology and heart failure. Measuring GLS quickly and reproducibly on the ultrasound system while scanning the patient is critical to applying it in daily practice.

Bring left ventricular deformation analysis to your clinical routine

AutoSTRAIN provides simple and fast LV GLS through Auto View Recognition and labeling, Auto Contour Placement and fast speckle tracking.



AutoSTRAIN computes strain from three apical views at once.

An efficient solution for routine clinical use

AutoSTRAIN is the first TOMTEC application to be integrated on Philips ultrasound systems. AutoSTRAIN on the EPIQ CVx ultrasound system is powered by advanced automation technology such as Auto View Recognition, Auto Contour Placement and tracking. It delivers one-button-push fast, and reproducible GLS measurements.

The **Auto View Recognition** algorithm was trained on **more than 6,000 images** to automatically recognize and label the views.

A solution for cardio-oncology

CTRCD is increasing

Improvements in cancer treatment have markedly decreased cancer-related mortality. Highly effective chemotherapeutic agents, however, may cause cancer therapy-related cardiac dysfunction (CTRCD). CTRCD is defined as a decrease in the left ventricular ejection fraction (LVEF) of >10 percentage points, to a value of <53%.

Echocardiography is the method of choice for the evaluation of patients before, during and after cancer therapy.

Detecting CTRCD with 3D EF and 2D GLS

Experts recommend three-dimensional echocardiography (3DE) as the preferred technique for monitoring LVEF and detecting CTRCD.

GLS is also recommended by experts to detect early LV function changes caused by chemotherapeutic agents. GLS measurements during chemotherapy should be compared with the baseline value. In patients with available baseline strain measurements, a relative percentage reduction of GLS of <8% from baseline appears not to be meaningful, and reduction >15% from baseline is very likely to be abnormal.



Philips AutoSTRAIN and Dynamic HeartModel^{A.I.} provide an excellent solution for fast and consistent 3DE EF and 2D GLS measurements for monitoring cardio-oncology patients.

References

Lang RM, Badano LP, Mor-Avi V, et al. Recommendations for Cardiac Chamber Quantification by Echocardiography in Adults: An Update from the American Society of Echocardiography and the European Association of Cardiovascular Imaging. J Am Soc Echocardiogr 2015;28:1-39.

Plana JC, Galderisi M, Barac A, et al. Expert Consensus for Multimodality Imaging Evaluation of Adult Patients during and after Cancer Therapy: A Report from the American Society of Echocardiography and the European Association of Cardiovascular Imaging. J Am Soc Echocardiogr 2014;27:911-39.

© 2018 Koninklijke Philips N.V. All rights are reserved. Philips reserves the right to make changes in specifications and/or to discontinue any product at any time without notice or obligation and will not be liable for any consequences resulting from the use of this publication. Trademarks are the property of Koninklijke Philips N.V. or their respective owners.



philips.com

Printed in The Netherlands.
4522 991 39551 * OCT 2018