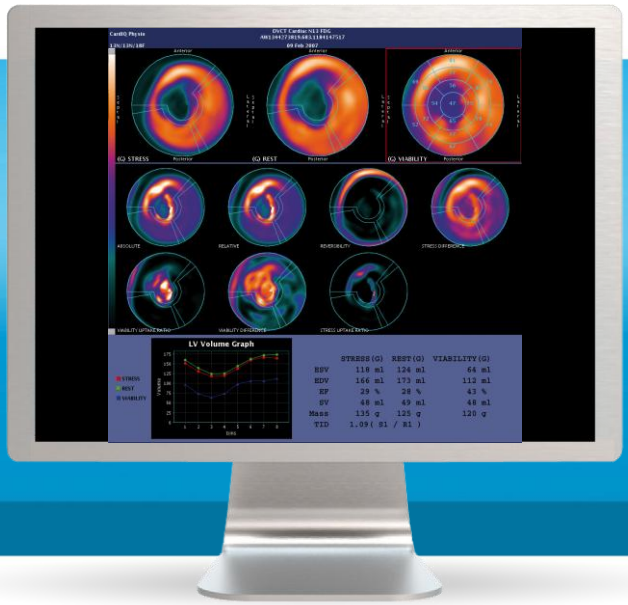
GE Healthcare



CardIQ Physio

A comprehensive view of myocardial perfusion and function.

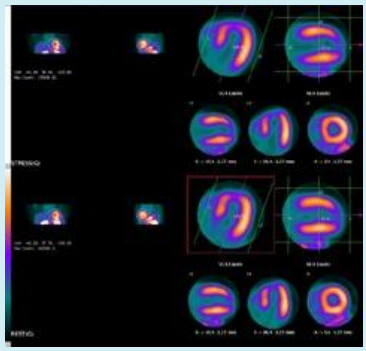
Evaluation of myocardial tissue viability in patients with ischemic left ventricular dysfunction has important clinical and therapeutic implications. Since patients with ventricular dysfunction are at higher operative risk, cardiologists and cardiac surgeons often have to weigh the balance between the potential risks and benefit of revascularization procedures.

Overview

CardIQ Physio is a totally integrated post-processing assessment package that includes processing, visualization, and quantification protocols. CardIQ Physio gives you the ability to accurately and reproducibly quantify left ventricular volumes, ejection fractions, and myocardial mass. Optimized to perform cardiac function assessment using GE Discovery PET multi-bin, multi-slice cardiac PET images, this non-invasive method may aid in the diagnosis and treatment protocol of cardiovascular disease.

What's new

- Smart smoothing improves IQ of functional maps in presence of noise.
- Streamlined workflow for tissue classification.
- Permits injection rates of 4cc/sec.
- Features CT brain stroke and tumor protocols.
- Offers a variety of functional maps.



Visit us:

www.gehealthcare.com/aw/applications/cardiq-physio/

Features

- Review features include:
  - Load up to three static, gated, or dynamic series.
  - Polar maps to help you visualize disease or defect.
  - Polar maps in ASNC layouts with vasculature territorial overlays.
  - Automated re-orientation
  - Flexible or customizable 3D volume filtering.
  - Flexible summing of gated and dynamic studies.
- Perfusion analysis includes:
  - Estimated mass, rest/stress/ reversibility severity scores.
  - Extent of perfusion defect.
- Viability assessment includes:
  - Extent of viability of an area.
  - FDG/perfusion match/mismatch tool for viability assessment using metabolic studies.
- Functional analysis includes:
  - Left ventricle volume plot
  - End of diastole volume
  - End of systole volume
  - Stroke volume
  - Ejection fraction
  - Mass
  - Index of possible TID
- Left ventricular wall assessment via cine captures motion of myocardium along epicardial and endocardial contours.
- Dynamic analysis allows you to select a subset of short axis images in DICOM for mat for 3rd party software myocardial blood flow analysis.
- Workflow streamlining includes:
  - Load DICOM compliant short axis, horizontal long axis, and vertical long axis images.
  - User annotation flexibility.
  - Save images in different resolutions
  - Save cine in movie formats.
  - Customize polar plot layout.
  - Interactive report cursor.
  - Define your own color maps, filtering, screen display options.
- Reporting features include filming of:
  - Rest and stress polar maps.
  - ED and ES volumes.
  - LV ejection fraction.
  - Oblique slice images.
  - Any screen and viewport.

System Requirements

CardIQ Physio is available as a full package on AW 4.2p or higher, and includes PET functionalities.

To take full advantage of CardIQ Physio functionalities, cardiac images must be acquired on a GE PET/CT system equipped with the following functionalities:

- CT Operator Console Software for Prospective Gating and CardIQ Snapshot for Retrospective Gating and Reconstruction for Helical CTA studies
- Gating Interface Kit for Discovery ST, LS, or DSTE.
- Ivy 3100 or 3150 EKG Monitor.
- EKG Simulator and Adaptor (not needed with 3150)

Indications for Use

CardIQ Physio is an aiding tool for the clinicians to perform analysis of sets of stationary, dynamic, or gated PET trans-axial images via a number of display, measurement and batch filming/archive features. The measurements include perfusion, end-diastolic & end-systolic volumes, stroke volume, ejection fraction, myocardial mass, and transient ischemic dilatation. Also included is a feature that enables clinicians to visualize reformatted PET perfusion and viability data, and make a comparison between the two. The perfusion or viability data could have been acquired under stress or rest conditions and they can be processed individually or simultaneously.

Regulatory Requirements

This product complies with the European CE Marking regulation for Medical Devices Directive: Directive 93/42/EEC, dated 14 June 1993

GE imagination at work