Centricity™ Cardio Enterprise[1]

Cardiovascular disease is complex.
Cardiovascular IT doesn't have to be.

Critical insights for critical decisions

The Glue that Holds Cardiology Together...

The landscape of cardiovascular care is changing ... rapidly. With an aging population across the globe, new innovative cardiac procedures blend what traditionally have been separate departments and bring a stronger focus on evidence-based medicine. Cardiology departments are facing new challenges to deliver better outcomes to their patients while also ensuring physician and employee satisfaction, higher revenues and lower operational costs.

The solution must match high-tech medicine with innovative healthcare, serving the needs of clinicians as well as entire departments, extending across multiple facilities and locations. It must help IT departments consolidate disparate systems and provide physicians relevant patient data and images, with full diagnostic tools and documentation capabilities.

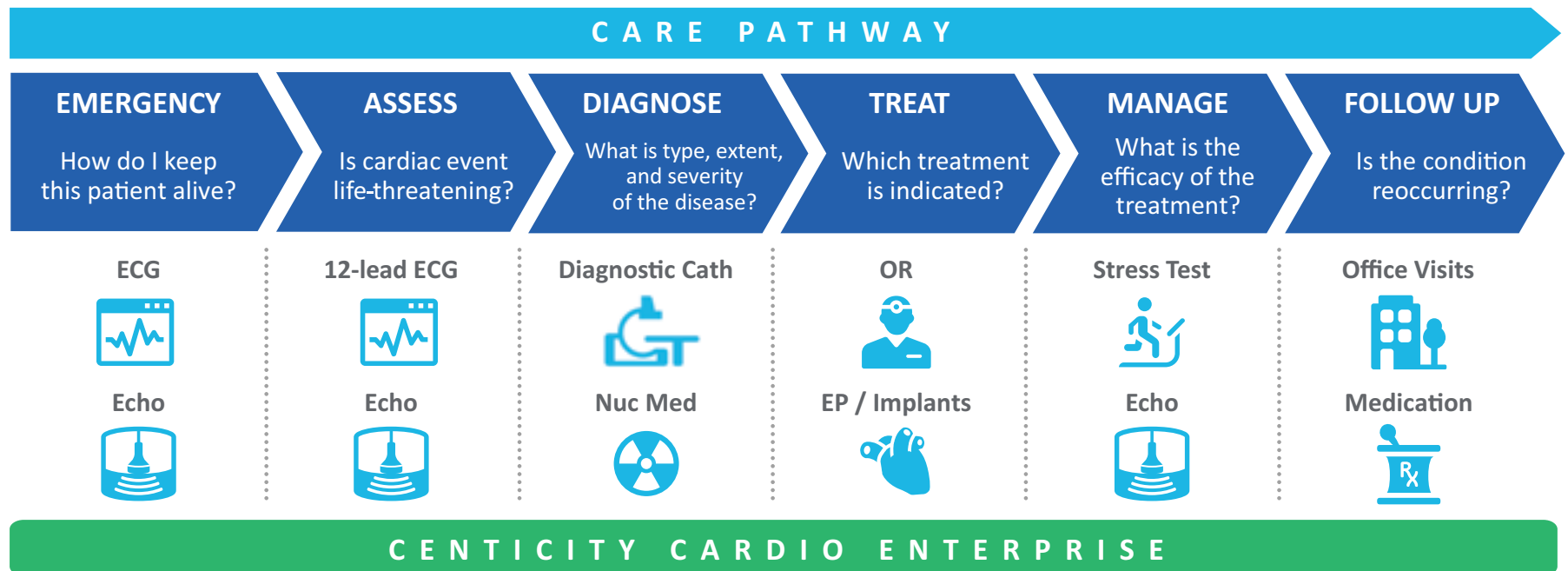## The solution Is Centricity Cardio Enterprise

GE Healthcare's Centricity Cardio Enterprise bridges the gaps between cardiology service lines and healthcare information systems, across the multi-location continuum of cardiovascular care. Centricity Cardiology Enterprise is an integrated imaging and workflow solution that provides a unified view of cardiology images, with customizable workflows and the ability to view related radiology images. A modular architecture and licensing model allows Centricity Cardio Enterprise to scale to organizational needs.

Spend more time on what matters most, the patient.

Every cardiovascular department relies on a complex mix of devices, systems, and tools to care for their patients. Centricity Cardio Enterprise makes sure these pieces work together across complex cardiovascular care pathways by providing a single point of access to patient data, waveforms, and images—combined with powerful end-to-end management, analysis, and workflow tools. GE Healthcare is committed to cardiology. We partnered with leading physicians to create out-of-the-box clinical content that helps streamline installations, which continues to be refined as we deploy Centricity Cardio Enterprise across the globe.

With Centricity Cardio Enterprise, you can help:

• Enable physicians to spend less time at the computer with side-by-side physician reporting and quick reports that result in fewer clicks per report
• Streamline patient care with proven end-to-end workflows that incorporate over 35 years of delivering advanced CVIT solutions and collaboration from experienced physicians, nurses, sonographers, and technologists
• Connect GE Healthcare and third-party cardiovascular imaging & monitoring devices to help streamline data capture as well as image archive and visualization
• Empower diverse clinical teams to work together and share information quickly and efficiently using the same set of tools
• Discover meaningful insights with sophisticated reporting capabilities that combine and analyze information across different tools, information systems, and cardiovascular service lines

CARE PATHWAY

EMERGENCY	ASSESS	DIAGNOSE	TREAT	MANAGE	FOLLOW UP
How do I keep this patient alive?	Is cardiac event life-threatening?	What is type, extent, and severity of the disease?	Which treatment is indicated?	What is the efficacy of the treatment?	Is the condition reoccurring?
ECG	12-lead ECG	Diagnostic Cath	OR	Stress Test	Office Visits
Echo	Echo	Nuc Med	EP / Implants	Echo	Medication

CENTICITY CARDIO ENTERPRISE

Cardiac Cath
and Invasive Peripheral Vascular

5 CLICKS
to complete a normal left heart cath[2]

92%
reduction in Cath Report turnaround time[3]

60%
reduction in time to report[4]

"A GREAT BENEFIT of the tight interfacing of GE Centricity Cardio Workflow as a hospital system is that we have all the information and all of the images everywhere at every point in our hospital available for doctors, for planning and for treatment"

–Dr. Alexander Marz, Head of Clinical Applications, Nuremberg Clinic

Making cardiovascular IT work for Invasive Cardiolgy

We know the invasive lab. GE Healthcare's close customer collaboration and broad knowledge base in cardiovascular imaging, monitoring devices and workflow allowed us to create a fully integrated solution, separating us from the pack.

Our comprehensive platform provides clinical, operational and administrative teams the ability to extract discrete quality data, analyze those data and make them readily available to external stakeholders. During procedures, interventions are documented including details on the use of balloons, stents, guidewires and other devices. Procedural data automatically flows into Centricity Cardio Enterprise so it can be utilized for the report and billing — an advantage of single-vendor integration.

Powerful workflow options and tools

- Help reduce paper-driven workflows through robust device connectivity and advanced data documentation tools
- Ensure data consistency between monitoring devices, physician reporting solution, and registry data with native data Registry submission modules, certified directly by GE Healthcare
- Connect with GE Healthcare's Mac-Lab™ to enhance procedural documentation and registry data submission as well as third party hemodynamic devices
- TomTec™ Cath Tools and Advanced cath & vascular analysis tools powered by Medis™
- Help enhance your revenue through accurate charge submission and correlating physician documentation to submitted charges
- Help eliminate the need to manually count your on-shelf supplies with our advanced inventory control module, reducing errors and driving your on-shelf supply usage

Side-by Side reporting, 39 out-of-the-box quick reports and advanced image analysis tools

Structural Heart

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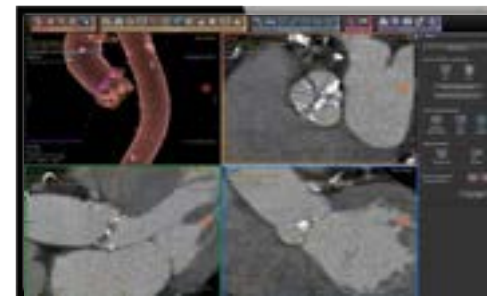out-of-the-box quick reports to help reduce clicks

Comprehensive Structural Heart Procedure Support

Centricity Cardio Enterprise is committed to helping your organization support a fast growing and dynamic structural heart program. Our Structural Heart physician reporting module enables clinical content and workflow features for structural heart procedures and acts as a hub of information related to the patient encounter. With the use of this module, procedural information captured from various devices, such as a hemodynamics recording system, is aggregated into a structured database and auto-populates physician reports and documentation records. Once completed and electronically confirmed, final structured physician reports can be auto-routed as the final patient record to various destinations.

Supported Structural Heart procedures include:

• Valve Replacement
• Valve-in-Valve
• Left Atrial Appendage Occlusion
• Mitral clip
• Alcohol Septal Ablation
• Valvuloplasty

• Atrial Septostomy
• Atrial Septal Defect Closure
• Ventricular Septal Defect Closure
• Patent Foramen Ovale Closure
• Paravalvular leak

In addition to structural heart reporting, Centricity Cardio Enterprise offers integrated access to AW's TAVI Analysis application. TAVI Analysis is a post-processing tool used for sizing, planning and visualization in TAVI/TAVR procedures. TAVI Analysis provides guided workflow and semi-automated tools to help determine aortic annulus size, give guidance for C-arm angulation for deployment of the device, evaluate appropriate access pathways and can communicate directly with the interventional suite.

TAVI Analysis on AW Server

Electrophysiology and Cardiac Rhthym Management

6 CLICKS
to complete an RF/Cryo Ablation[5]

140+
out-of-the-box quick reports to help reduce clicks

Simplify your EP and Cardiac Rhythm Management practice in the hospital and at follow-up

Electrophysiology

Our integrated solutions are designed to address your Electrophysiology (EP) needs and to help reduce the distractions of a hospital environment. GE Healthcare understands EP at a healthcare level, which puts us in rare company. Centricity Cardio Enterprise combined with GE Healthcare's CardioLab™ and Innova™ IGS 620 offers a complete end-to-end EP solution – from image acquisition to EP measurements and monitoring to procedure documentation and structured reporting. We understand the clinical and operational struggles you face every day — and work with you to help enhance patient care and operations.

Cardiac Rythm Management

The Cardiac Rhythm Management module can import implant and follow-up data using IHE IDCO[6] profile to provide data in a variety of formats. This streamlined interface between proprietary devices and Centricity Cardio Enterprise allows for automatically pre-populating reports, thereby reducing error-prone manual data entry.

Data can be imported from the following vendors:
• Biotronik™
• Medtronic™
• Boston Scientific™
• Abbott™ (formerly St Jude™)

Side-by-Side reporting combined with over 140 quick reports designed to help save time reporting and reduce clicks

Adult / Pediatric Echo & Non-Invasive Peripheral Vascular

6 CLICKS to perform a Routine TTE[7]

35% One customer achieved Echo report turnaround times 35% better than ASE Recommendations[8,9]

19 out-of-the-box quick reports to help reduce clicks

Advanced analysis tools, diagnostic quality images, and automated measurement flow

EchoPac™ Plug-In

Our innovative software allows you to shift more of your analyses and workload from your ultrasound system or dedicated workstation to Centricity Cardio Enterprise for the sophisticated tools you are familiar with from EchoPAC. Combined with the Vivid™ line of ultrasound carts and their raw data, this may help free up your ultrasound system for additional exams, and help eliminate the need to use a dedicated ultrasound workstation.

Vendor Agnostic Capabilities

Centricity Cardio Enterprise also provides vendor agnostic echo measurement and analysis such as 2D strain, 3D and 4D visualization, powered by TomTec. Centricity Cardio Enterprise provides easy and quick review of individual images and sequences supported by a variety of time-saving features. With it's latest auto-strain capabilities, strain analysis can be done on any echo study and in only three clicks, thus allowing the opportunity to more accurately track early signs of heart failure.

Pediatric & Fetal Echo

Centricity Cardio Enterprise now features a revamped Pediatric Echo Reporting including fetal echo reporting capabilities. Within this module, physicians

can leverage Detroit Z-scores or Boston Z-scores (additional license required) for both pediatric and fetal echo with measurement trending over time to help manage care delivery. Additionally, it can help document complex anatomy with 167 out-of-the-box interactive Meyer-Mullins diagrams.

Physician reporting combined with Centricity Universal Viewer with EchoPac Plugin provides robust measurements and image analysis tools

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ECG, Stress ECG and Stress Imaging

6 CLICKS
to perform
a Normal
Routine Stress[10]

82%
reduction in
stress echo report
turnaround
time[11]

"The stress echo integration SAVED US A LOT OF TIME [about 30-45 minutes per procedure], enabling the doctors to read the reports faster."

– Academic Customer

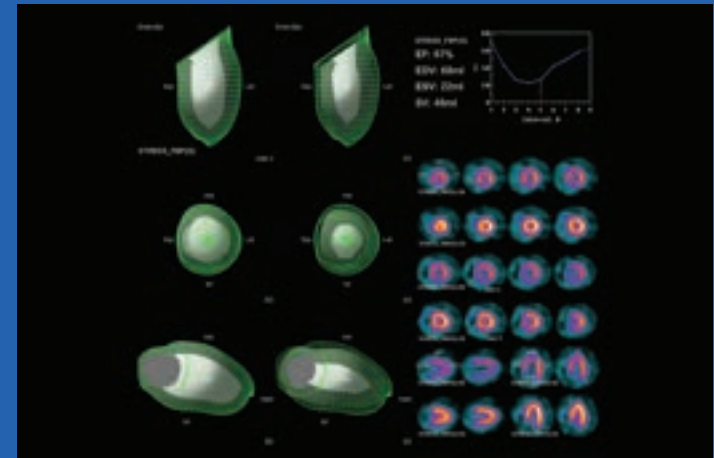## Save time and optimize workflow with seamless ECG and stress ECG inregation

Centricity Cardio Enterprise features seamless ECG management, powered by MUSE(TM) NX. Integrating MUSE NX into the Centricity Cardio Enterprise environment brings the entire cardiac care team to the conversation. Supporting decision making with proven algorithms and measurements validated against thousands of records in multiple peer reviewed studies and editing tools developed with leading cardiology hospitals. Integration of MUSE NX with Centricity Cardio Enterprise enables a single cardiology patient jacket with the ability to read all cardiology related studies including ECG's from a single workspace.

Centricity Cardio Enterprise also integrates with GE Healthcare's CASE™ stress system to pre-populate stress data and measurements that help streamline Stress ECG, Stress Echo and Stress Nuclear reporting. Utilizing Centricity Cardio Enterprise for stress imaging examinations helps organizations save time by providing a single combined stress plus imaging report.

MUSE NX embedded into Centricity Cardio Enterprise offers streamlined ECG workflow in a single solution.
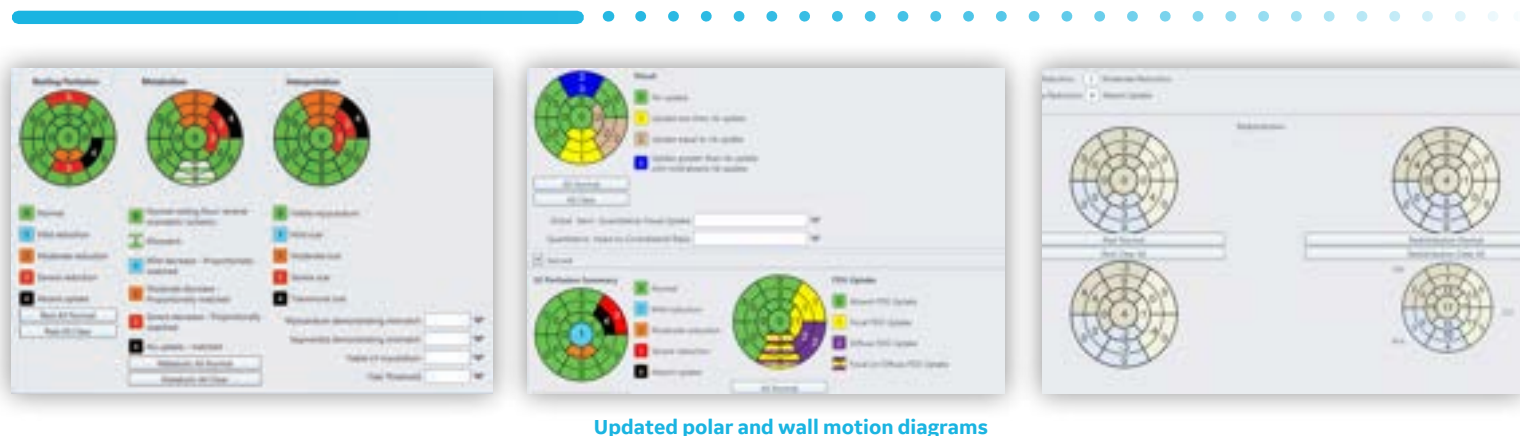
Nuclear Cardiology

As a nuclear medicine clinician today, you're being asked to do more, in more places with fewer resources. Your world is unique and you need technology that can adapt quickly and intuitively. That's where GE Healthcare's Xeleris™ and Centricity Cardio Enterprise can help.

As one of the industry's leading nuclear medicine image management solutions, Xeleris and Centricity Cardio Enterprise has never been more capable. By giving you access to information, Centricity Cardio Enterprise provides a tightly connected workflow with desktop integration to Xeleris. This integration passes user name and patient context, further helping to improve productivity by eliminating the need for a second login and patient search.

Centricity Cardio Enterprise now includes updated polar and wall motion diagrams as well as support for PET examinations. By documenting physician reports in Centricity Cardio Enterprise, you can provide discrete data and reports from your lab to the broader care area, seamlessly. For non Xeleris users, Centricity Cardio Enterprise offers imaging integration INVIA 4DM as well as DICOM SR import to help prepopulate data for structured reporting.

Updated polar and wall motion diagrams

Complement your EMR/HIS

12 MINS
Mac-Lab procedure report available in the EMR within 12 minutes following the completion of a procedure[12]

1 CLICK
From 2 hours to 1 click with automated stock management[13]

"As well as routine procedures, our hospital can be involved in up to 100 clinical trials, and Centricity Cardio Workflow allows me to develop data reports so that CLINICIANS CAN PROVIDE THE RIGHT DATA AND MAKE INFORMED DECISIONS in these trials."

– *Olivier Nelis, System Administrator, Cath Lab Medical Technical Department, Onze-Lieve-Vrouwziekenhuis (OLV), Aalst, Belgium*

Extensive interfaces and administrative modules help unite services lines to a single point of access while building a unified cardiovascular data warehouse

Centricity Cardio Enterprise leverages robust modules with interface capabilities to complement the EMR/HIS with procedural data while helping to streamline administrative tasks and develop a cardiovascular database. Clinical, operational and financial reports can be queried to analyze structured data for insights on how to improve departmental efficiency and support statistical analysis.

- The **Inventory Management Module** with bidirectional interfacing will help you track what's on the shelf and generate more accurate orders for your cardiology

- The **Charge Capture Module** helps ensure billing accuracy by enabling electronic flow of billing data to the billing system
- **Registry submission modules**, certified directly by GE Healthcare keeps product development aligned with registry requirements for various regions, and helps ensure data consistency between monitoring devices, reporting solutions, and registry data without the need for a third-party solution
- **XML Export** function enables distribution of discrete procedural results. These data can be interfaced and stored in the EMR (or third-party application), provided it is able to accept it
- **Medication Outbound Interface** sends detailed administered medication directly to the MAR. Care teams can now simply access the MAR to see a list of all medications administered in the Cath and EP lab
- **Labs Interface** brings in the most recent lab information from the hospital lab system to the database and displays the results within the patient record
- Additional interfaces such as ADT, orders in/out, Mac-Lab/CardioLab procedure repot, PDF/DICOM PDF results and text results also are available

Achieve and deliver results that matter

A comprehensive solution drives operational, financial and clinical outcomes with complete GE Healthcare support tailored to your unique business needs.
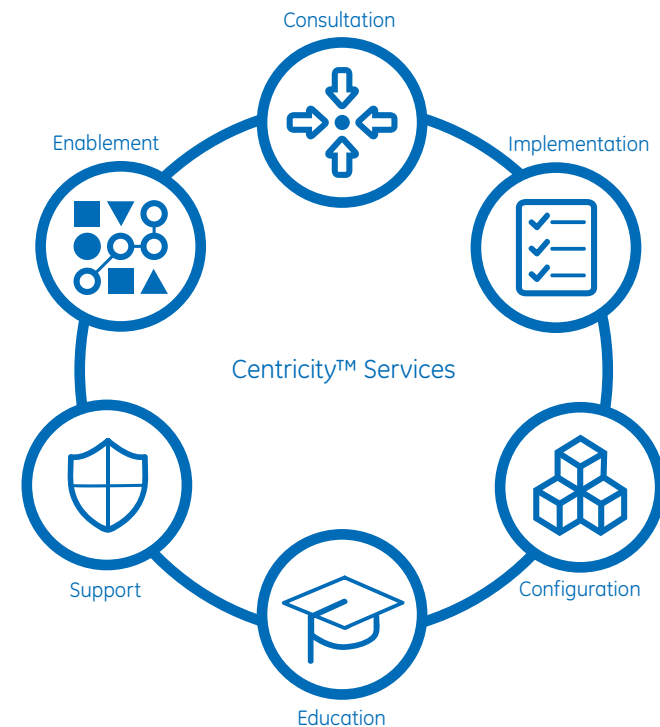
Unlock value from connected data to achieve results that matter. Our analytics solutions are a portfolio of comprehensive dashboards that include insight-rich applications, built on a secure and scalable infrastructure. Analytics solutions can be found across GE Healthcare's full portfolio, including a wide-range of individual software components, custom services and clinical devices designed to help answer targeted questions or to provide specific insights. Our solutions enable quicker, more informed decisions that achieve sustainable financial, clinical, and operational outcomes.

It's not enough to just have great software

GE Healthcare's Centricity Services offer a continuum of support.

Centricity Services are designed to connect productivity with care by increasing usability, enhancing performance, and optimizing a solution's return on investment. With our combined clinical, technical and leadership expertise, we provide a comprehensive and holistic approach to servicing your healthcare IT needs, from comprehensive clinical workflow assessments to flexible and ongoing education. It is important your experience with GE Healthcare extends beyond the purchase — let Centricity Services provide the support you need for the lifecycle of your new products.

Consultation

Enablement

Implementation

Centricity™ Services

Support

Configuration

Education

GE Healthcare

About GE Healthcare

Product may not be available in all countries and regions. Full product technical specification is available upon request. Contact a GE Healthcare Representative for more information.
Please visit www.gehealthcare.com/cce.

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1   Centricity Cardio Enterprise is a combination of Centricity Universal Viewer and Centricity Cardio Workflow

2,5,7,10   Based on pre-released product testing and assessment

3,12   Wheaton Franciscan Outcomes

4,13   Nuremberg Clinic Case Study

6   Implantable Device Cardiac Observation Source: http://wiki.ihe.net/index.php?title=PCD_Implantable_Device_Cardiac_Observation&redirect=no

8   American Society of Echocardiography , guidelines available at- http://www.asecho.org/wordpress/wp-content/uploads/2013/05/Quality-Echo-Lab-Operations.pdf

9,11   Licking Memorial Case Study