

Better Connections, Better Care

MultiCare Health System Integrates Its CVIS with Epic EHR to Improve Efficiency and Accelerate Care Decisions

Splashed across the home page of Tacoma, Washington-based MultiCare Health System's website is the motto, Better Connected. It's a phrase that MultiCare's cardiovascular (CV) departments have taken to heart.

The CV service lines at two MultiCare medical centers recently implemented a comprehensive LUMEDX cardiovascular information system (CVIS) linking cardiac data from disparate specialties, departments, and campuses to Epic, the enterprise EHR. Integration between the service line and the enterprise has resulted in a seamless flow of patient information between caregivers, improving operational efficiency and timely, informed care decisions.

The Project

MultiCare first installed LUMEDX's Apollo cardiovascular clinical data repository in 2001, adding STS and ACC-NCDR® registry packages for registry reporting over the next few years. In 2010, MultiCare took several large steps forward in the deployment of its integrated CVIS by adding:

- Apollo ADT/Orders and Results interfaces connecting the CVIS with Epic.
- Physician reporting for Cath and EP.
- AMICAS-Merge® interface to Apollo.
- ACTION-GWTG® and ICD registry exports.
- Apollo Registry Interoperability software.
- The Congestive Heart Failure module.

While the scope of the project was considerable, careful planning and close collaboration with LUMEDX enabled MultiCare to roll out all the critical applications and integration components in a matter of months. Cath physician reporting, for example, was implemented in just one month, including workflow analyses, build, interfacing and testing.

CVIS-Epic Integration: How It Works

- Orders, ADT and Demographics are transmitted from Epic to Apollo and PACS applications.
- Procedures/studies are performed.
- Procedural data is exported to Apollo, populating discrete fields.
- Physicians complete procedure report in CardioDoc.

MultiCare Health System

- 1 Pediatric and 3 Adult Hospitals
 - ◆ Only Pediatric Hospital in Southwest Washington
 - ◆ Level II Pediatric & Adult Trauma Centers
 - ◆ Over 100 Clinics
- 818 Licensed Beds
- 7 Outpatient Surgery Centers
- 6 Cardiac Cath Labs
- 1 Hybrid Cath Lab/CV OR Suite
- 4 Cardiovascular ORs
- 2 Fully Accredited Chest Pain Centers
- AACN Beacon of Excellence Award: Cardiovascular Intensive Care Unit and Coronary Care Unit, Tacoma General Hospital
- A HHN magazine *Most Wired* Health System

<http://www.multicare.org/home/heart/>

- A copy of the final result is exported to the Procedures tab of the Patient Chart in Epic.
- Billing is initiated in Epic.

CVIS-Epic Integration: How It Helps

A fully integrated CVIS is essential to MultiCare’s larger effort to make detailed, up-to-date patient information accessible across the continuum of care. Benefits include: shorter report turnaround times; timelier, more fully informed patient care decisions; standardized results reports verbiage throughout cardiology; instantaneous loading of finalized results to Epic in a routine format and in a uniform chart location; and a reduced billing cycle.

CVIS and PACS Administrator Allison Hirsch explains why an integrated CVIS is indispensable to cardiac and vascular medicine at MultiCare. “Apollo contains discrete fields that are critical to a cardiology program—and these fields are not available in the EHR. Number one among these is ejection fraction (EF). We can do workarounds to get EF into Epic, but you cannot report from these workarounds, and many of the Core Measures, Get with the Guidelines and all the registries need that ejection fraction value. Apollo bridges those gaps in information; it is *specific* to patients with cardiac events. It collects the data it knows we need in order to report to the registries and/or to report internally so that we can ensure that we’re structuring our program to be appropriate for the patient population we’re seeing.”

About LUMEDX: With over 600 heart center clients worldwide, LUMEDX is the market leader in fully integrated cardiovascular information and imaging systems and the No. 1 independent integrator of cardiology information solutions. LUMEDX offers the most proven, comprehensive package of clinical information tools, cardiovascular products, and services to help medical institutions enhance quality of patient care, reduce costs, streamline workflow, increase patient volume, and grow revenue.