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BUILDING CARDIOLOGY CENTERS OF EXCELLENCE



St. Luke's Hospital
Iowa Health System

St. Luke's Hospital Minimizes Manual Data Collection with Clinical Documentation and CathCor Interface

Highlights

Eliminated Laborious Chart Abstraction and Data Entry.

Just six weeks after introducing ClinDoc (Clinical Documentation at the Point of Care) and a CathCor interface to the cath lab, 70% of ACC-NCDR™ CathPCI® fields are populating automatically, obviating the need for time-consuming paper chart abstraction and data entry.

Well-Planned Implementation. Following the Iowa Health approach to LUMEDX implementations—well-planned and well-executed system deployments—ensured few disruptions and speedy user adoption.

Local Control Accommodates Change. Because St. Luke's has an on-site dedicated system administrator, any changes can be made at the service line level, faster and easier than if the healthcare system's IT department handled it.

More Data, Sooner Leads to Better Data, Better Care. Bringing more cath data—and soon EP data—automatically to the database improves the quality of the data itself, facilitating reporting and improved quality of care.

“When we get the staff involved in identifying the CathPCI information, it improves the quality of that information—because the data is more timely and more accurate.”

—Terri Grantham, RN, MS
Cardiac Outcomes Manager
St. Luke's Hospital
Cedar Rapids, Iowa

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On a Tuesday morning in April, 2009, the cath lab at St. Luke's Hospital, an Iowa Health System affiliate, went live with LUMEDX's Clinical Documentation and CathCor interface. Clinicians and staff were more than ready for the change; they were looking forward to it. That day they documented every case using ClinDoc with no problems and no complaints.

St. Luke's is a 540-bed hospital in Cedar Rapids, Iowa. With two cath labs and a yearly average of 1600 diagnostic and 535 interventional procedures, collecting and managing clinical data can be a monumental task. Utilizing ClinDoc and integrating their hemo system with the Apollo clinical data repository has turned a once laborious process into a truly streamlined workflow.

One of eight affiliate hospitals in the Iowa Health System, St. Luke's had been using Apollo for their ACC data for several years but hadn't integrated with their hemodynamic system or their cath workflow. As part of a larger initiative to automate and standardize cardiovascular information across all Iowa Health hospitals, St. Luke's began with their cath labs.



Collecting Data for ACC a Laborious Process

"We had very little information that was populating automatically," says Cardiac Outcomes Manager Terri Grantham, RN, MS. "There was an ADT interface with our cardiac cath documentation system. So that would bring over just the bare minimum of information like patient name, height and weight, a few other pieces of data—but that was about it."

Collecting and managing the cath lab data was labor-, time- and paper-intensive. "After the procedure, cath staff would attach the ACC-NCDR™ CathPCI® form to the record and then print out a copy of the flow sheet for the care given and the results of the cath. All of this was paper, of course," says Terri. A cath staff member would take those folders and abstract the information onto the data collection form.

"And there's other information that's required for the ACC form that isn't on the procedure record, such as the medical history, why the patient was here for the cath and pre-meds," notes Terri. "So our abstractor would gather all the pieces of information, all the folders and forms, and also the data from our EMR, to answer the different questions on the ACC form. And she would spend on average a day-and-a-half every two weeks."

After the data was abstracted, a dedicated data entry person would take the ACC form, sit down at a computer and enter the majority of the data into Apollo.

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Reducing Manual Data Retrieval for Reports and Analytics

Despite spending so much time collecting and abstracting data, the cath lab information was not easily accessible. According to Cardiac Cath/Vascular Labs Manager Dave Phillips, RN, MSN, “We used the paper records to show us what cases were done each month. And so someone actually had to go in and manually look through all those forms and then write down the information for our monthly reports. There were no queries to our hemodynamic system other than monthly procedure counts.” This was a serious barrier to the kind of analytics that can improve a service line’s clinical and financial performance.

The Iowa Health Implementation Strategy

To eliminate this time-consuming and cumbersome system, St. Luke’s worked closely with Iowa Health IT. The Apollo implementation team at Iowa Health, two staff members deploying Cardiovascular Information Systems at all affiliate hospitals, collaborated with St. Luke’s System Administrator, Bryan Wright, RTR. Bryan in turn worked with the cath lab staff to develop the Clinical Documentation notes, making sure the verbiage was correct and definitions standard. Based on the St. Luke’s verbiage, the Iowa Health implementation team created the notes.

The final step was training. Because St. Luke’s was the eighth Iowa Health affiliate to implement ClinDoc, the Apollo implementation team conducted their own basic user training for staff and System Administrator training for Bryan.

More Accuracy and More Data with Less Time, Less Paper

After implementing Clinical Documentation and the CathCor interface Terri says, “We’re no longer printing the ACC form. Our abstractor has the Apollo program up on her screen, both the registry she’s using and the record. She also has CARECAST and the Horizon Patient Folder (St. Luke’s EMR and EMR storage system). And she just looks at them on the screen and answers the questions in Apollo and when she’s done with it, it’s done.”

One month after going live, nearly 70% of ACC data fields are automatically populating. “We think that’s pretty good for one month’s time. It’s certainly leaps and bounds above where we were a month ago,” adds

ST. LUKE’S HOSPITAL CARDIAC CARE DATA MANAGEMENT

- Two cath labs
- One EP lab
- 1600 diagnostic caths per year*
- 535 interventional caths per year*
- 500 EPs per year*
- Multiple users
- One local system administrator
- One Iowa Health IT team
- One streamlined workflow
- 70% ACC Fields Auto-populating

*Average annual volume.

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Terri. “And once our physicians go up on their electronic piece (CardioDoc), we’ll get even more coming over to populate the fields.”

Manual data retrieval has also been greatly reduced. “Both for ACC and for what we’re trying to do within the department, ClinDoc eliminates much of the manual work for us,” says Dave. “We have been trying to get statistics—for counts, revenue, those kind of things. And quality is also a key piece of what we’re trying to accomplish. We really didn’t have a system that was very user-friendly to do any kind of quality matrix before.”

Open to Change

Dave says the cath lab staff’s openness to the new system smoothed the transition greatly. Terri supports this idea, noting that documenting in the cath lab itself is a learning experience for the staff, most of whom were unaware of the precise definitions that the ACC requires: “They’ve been very good with it. Because we’re asking them to do something new, at the point of care. But most seem to enjoy learning this part of things too. This is great because when we get the staff involved in identifying the CathPCI information, it improves the quality of that information—because the data is more timely and more accurate.”

“We get more data out of the new system,” says Dave. “And another really positive aspect is the ability for Bryan to make changes on-the-fly.” If a sales rep brings in a new drug-eluting stent for a trial, for example, St. Luke’s can easily add it to the equipment list. “Bryan can make a change in a minute if we need it. This saves us a lot of time.” Local control over the system accommodates the changes that arise in a busy cath lab.

Next Steps: EP, Physician Structured Reporting, PACS, Inventory

The next step for St. Luke’s is ClinDoc deployment in the dedicated EP lab, which performs an average of 500 procedures as year and generates a tremendous amount of data currently managed manually. CardioDoc Structured Reporting in cath and EP are planned for shortly thereafter. CardioPACS and CardiInventory are on the docket as well.

Dave explains the roll-out goals and strategies. “We approach things from an Iowa Health perspective. It was apparent that Iowa Health needed a CVIS vendor that would work across the system but also locally, realizing that we’re a health system but all our hospitals are different. The affiliates can choose what they want to do in terms of modules based on what makes the most sense for their hospital. And that’s part of the benefit of the LUMEDX solutions. There’s variation in what we all do and the product allows for that. Because all our affiliates have the need for a CVIS.”

KEY LUMEDX SOLUTIONS AT ST. LUKE’S HOSPITAL

- Apollo™ Advance Clinical Data Repository
- Clinical Documentation
- CathCor Interface