LUMEDX

UnityPoint Health, Methodist / Proctor Peoria, Illinois

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> Steve House
> Director of Cardiovascular Diagnostic and Therapeutic Services
> UnityPoint Health – Des Moines

Sophisticated CV Analytics Deliver Insight and Enable Improvement

UnityPoint Health – Des Moines

The hospitals of UnityPoint Health – Des Moines operate under a shared vision: "Best outcome for every patient, every time." To help support this endeavor, the three UPH – Des Moines hospitals offering adult cardiac services recently began using LUMEDX Analytics Manager software.

Iowa Methodist Medical Center, Iowa Lutheran Hospital and Methodist West Hospital together provide over 2000 diagnostic and interventional cardiac procedures per year. Managing and making sense of the vast amount of data generated by these procedures is crucial to the success of the health network. Analytics Manager delivers clinical reports, ad-hoc querying, and advanced drill-down capabilities so UPH – Des Moines can monitor performance, maximize efficiency and improve outcomes—all in in near-real time.

High-Level View of Performance in a Few Clicks

The software offers flexible reports based on wide range of granular data. "The reports that we were running before Analytics Manager had limitations; there was only so much information I could get. Now I'm able to run my reports—including EP, and diagnostic and interventional Cath—and I can see whatever we need to see. I can determine the number of pacemakers, the number of ablations we did. I can get a better picture of our performance with a few clicks. I just set the parameters I want and run the report," says Steve House, Director of Cardiovascular Diagnostic and Therapeutic Services.

Analytics Optimize Service Line Management

Steve uses pre-built Analytics Manager reports and also creates his own. He then shares the latest reports with physicians and management at monthly co-management meetings. The reports enable CV leadership to see and understand how the service line is currently performing. And if the analytics reports indicate a drop in quality, staff and physicians can work to address the problem immediately.

Useful reports include:

- Door-to-Balloon Times
- Volumes
  - By Hospital
  - By Day of the Week
  - Weekly, Monthly, Quarterly, Annually
- Inventory & Costs
  - By Procedure
  - By Physician
  - By Hospital
- Procedures by Hospital

- Procedures by Physician
- Outcomes by Physician
- Registry & QI Measures
  - Blood Utilization
  - Complications
  - D2B
  - Pre-Op Beta Blockers
  - Medications at Discharge
  - And More

Keeping an Eye on Quality—with Less Paper

"With Analytics Manager, I can view the measures for CathPCI and ACTION and see everything that we are tracking. I can determine if there is compliance or if there is something wrong with the way we're documenting," Steve says. "But the best part for me is I'm not going through stacks of paper figuring this out. I can pull it up in seconds, and it's all current information, within one day."

Drill-down functionality and discrete data points mean that UPH – Des Moines can uncover the root causes of outliers. For example, if Steve notices a **door-to-balloon time** beyond 90 minutes, he can drill down to the individual patient and specific procedure to see what set of circumstances combined to cause the problem. And he can do this all without logging into the hospital information system (HIS).

Spotlight on Training: A Key to Success

To get maximum value out of its Analytics software, UPH – Des Moines engaged LUMEDX Senior Trainer John Nicholls to teach an Analytics Manager class. John spent time at each of the three UPH – Des Moines hospitals, showing users tips and tricks for running canned reports and creating their own.

As Steve notes, "It was an excellent education. And then after the training, I needed to practice. That's critical, so you don't forget what you've learned."

Improving Operational Efficiency: Staffing and Call Coverage

UPH – Des Moines is also using analytics to improve operational efficiency. Management can run a report of all patients, and then use pivot tables to see which days of the week are busiest and which are slowest. This report has been instrumental in managing staffing and call coverage.

Registry Data Validation in Near Real-Time

Accessing reports and data in near-real time has been essential for registry participation and quality control. UPH – Des Moines has two full-time Data Coordinators who use the reports on a regular basis to validate data prior to submitting to the registries. Says Data Coordinator Denise Clark, "Before we were using Analytics Manager, we would sometimes discover errors in the data we submitted three to four months after they occurred, when we would get our report from the Registry. At that point we would have to go in, investigate the error, and try to fix it. And of course if there ever was something in our processes that was causing problems with our outcomes, we wouldn't know for months either. To be successful, we need current data."

By the Numbers: Cardiology at UnityPoint Health – Des Moines

- **3** hospitals with adult CV service lines
  - ◆ Iowa Methodist Medical Center
  - ◆ Methodist West Hospital
  - ◆ Iowa Lutheran Hospital
- **3** accredited Chest Pain Centers
- **3** accredited Heart Failure Centers
- **4** national registries
  - ◆ ACC NCDR ACTION Registry®
  - ◆ ACC NCDR CathPCI Registry®
  - ◆ ACC NCDR ICD Registry®
  - ◆ STS Adult Cardiac Database
- **27%** volume increase in one year
  - ◆ **1951** diagnostic cases annually*
  - ◆ **610** PCIs annually*
  - ◆ **122** procedures performed concurrently with Cath or PCI annually*

*September 2013-September 2014

Adds Steve, "Our goals are always to track down any outliers and identify what the problem was so we can solve it. This tool enables us to keep track of where we are and where we need to be."

LUMEDX Solutions at UPH - Des Moines

- Apollo Clinical Data Repository
- Analytics Manager
- CardioPACS® - Cath, EP, Nuclear
- Cath Physician Structured Reporting
- ClinDoc
- EP Module
- Integration Management
- Interfaces: Mennen Hemodynamic Interface, Results Reporting to Epic EMR
- Inventory

- Registries:
  - ◆ ACC NCDR ACTION Registry® Module
  - ◆ ACC NCDR CathPCI Registry® Module
  - ◆ ACC NCDR ICD Registry® Module
  - ◆ STS Adult Cardiac Database Module
- Scheduling