



Case study

Structured cardiovascular reporting helps medical center decrease late charges by 79%



Customer

Baystate Medical Center, Springfield, Mass.



Challenge

Disparate cardiovascular data, siloed analytics, and non-standardized cardiology reporting



Product

Change Healthcare Cardiology™, Change Healthcare Cardiology Cath™, Change Healthcare Cardiology Echo™, Change Healthcare Cardiology Hemo™, Change Healthcare Cardiology Charge Manager™, Change Healthcare Cardiology™ Analytics



Results

- Implemented a single-database cardiovascular platform with structured reporting (SR)
- Achieved 100% adoption of SR by interventionalists
- Improved percentage of unsigned charges within a five-day window by 79%, from a high of 89% to under 10%
- 92.5% of cardiology reports signed within 24 hours

“Structured reporting improves our report quality and accuracy... Standardizing what we are documenting increases our billing and reimbursement accuracy, and that has been a great benefit to Baystate.”

Corey McKinstry,
Manager, Heart and Vascular Division, Cardiac Interventional Services, Baystate Medical Center



The customer

Baystate Health is an integrated health care system serving more than 800,000 people throughout western New England. With roots dating back to 1883, Baystate Health has provided high-quality health care to its community for more than 140 years.

The system's leading facility, Baystate Medical Center in Springfield, Mass., is the region's only level 1 trauma center. The center has 734 beds in the interventional cardiology arena and 11 interventional cardiologists. Annually, the center performs about 5,000 procedures in the Cath lab, as well as approximately 400 STEMIs, 350 TAVRs, and 1,500 PCIs.

The challenge: Lack of cohesive data, siloed analytics, and manual processes

Like many medical centers, Baystate lacked a single cardiovascular database to streamline the documentation process and ensure accuracy. Without structured reporting, Baystate's staff had to rely on multiple applications, cumbersome interfaces, and siloed analytics to complete cardiology reports.

"When you don't have a single database, your data is all over the place. Gathering analytics and trying to pull the information together from many different sources is very time-consuming and frustrating," said Corey McKinstry, manager of the Heart and Vascular division for Baystate Medical Center's Cardiac Interventional Services. "The absence of structured reporting in a single database results in time-consuming manual labor as well as less accurate and complete documentation."

The solution: Transitioning to structured reporting

To solve its reporting challenges, Baystate Medical Center sought a cardiovascular imaging system (CVIS) that would support clinically robust, easy-to-use structured reporting – and be able to send to and receive data from the EHR in real time. "We did our due diligence, evaluating and ranking many vendors," said McKinstry. "They all have different features; these solutions are not one-size-fits-all. You have to know what it is you need the most."

Baystate Medical Center chose to partner with us to become an early adopter of its cardiology imaging structured reporting. In late 2011, the center began the transition to a single-database cardiology solution, Change Healthcare Cardiology™. By coupling the CVIS with structured reports, Baystate sought to reduce errors, achieve clinical efficiencies, and save time in report creation by eliminating the drawbacks of individual templates.

Baystate Medical Center immediately began to realize the benefits of structured cardiovascular reporting, which links structured and unstructured data to promote consistency and eliminate missing data. Structured reports use predefined sentences, procedure-notes helpers, and auto-populated procedure notes and patient data to facilitate complete documentation.

"When you don't have structured reporting in a single database, your reports are done separately by dictation," said McKinstry. "You have to double-document medications and jump in the EMR to enter data on a separate procedure report. Then the physician dictates what they thought happened, and so on. And sometimes, that information does not align."

Now, Baystate Medical Center's reports are completed immediately after the procedure, improving productivity and resource management. During the procedure, data automatically flows into the structured report from Baystate's EHR and modalities, eliminating repetitive entry and reducing errors.

Lab values are integrated into the cardiovascular record, which helps to save time and prevent transcription errors. Previously, if a physician needed specific labs

for calculations, they had to get the lab results from a different repository and transcribe them—a time-consuming manual process.

Moving to a single-database cardiology platform for the entire enterprise has also helped Baystate Medical Center increase data access across specialties. The new system provides a complete cardiovascular record for each patient, with universal viewing access to help increase care team collaboration across the enterprise.

“With a single database, you can sit in front of one screen, and so can the physician in another department in the hospital. You can look at the physician’s report, the images, the hemo report they do during the case, and the procedural report all at once,” McKinstry explained. “If I’m questioning anything, I don’t have to open three different applications or jump all over the place. It’s all in front of me.”

The results: Faster, more accurate documentation

Baystate’s structured reporting implementation incorporated standardized billing and coding keywords to help ensure that all its clinical documentation properly describes each procedure and why it was performed — a key factor in whether or not a claim gets approved.

“Structured reporting improves our report quality and accuracy. You can standardize statements, making sure that you get the right information, and that you don’t have to repeat it,” McKinstry said. “Standardizing what we are documenting increases our billing and reimbursement accuracy, and that has been a great benefit to Baystate.”

The implementation of structured reporting improved not only the quality of Baystate’s documentation, but also its report turnaround time.

“When we were using dictation, if we had 11 interventions, we had to get 11 different formats of reports. Trying to find information in those reports was tedious, to say the least,” McKinstry said. “Then the report would go to the EMR for a signature, which could take 30 days or more.”

Facing the challenges of structured reporting in cardiology

Baystate’s leadership recognized that the transition to structured reporting would be difficult for many of its physicians, so the team selected a champion physician to help maximize adoption and spearhead the learning process. “There is definitely a hill to climb. Not everybody is going to buy in to the transition, so you really need to support the physicians because this is a huge change for them,” advised McKinstry.

Baystate’s champion physician was also one of the center’s private practice physicians, which helped the medical center improve private practice engagement. In addition, the center tasked physicians with helping to construct some of the reporting statements to ensure consistency and demonstrate the benefits of using structured reporting.

Currently, 100% of Baystate’s interventionalists use structured reporting. As of February 2021, 92.5% are signed in within 24 hours of the procedure’s completion. Before adopting structured reporting, 89% of Baystate’s professional and hospital charges remained unsigned on reports within a five-day window, as the manual reporting process frequently took upwards of 30 days.

“We immediately saw a huge improvement in our late charges, but we hit a plateau of about 30% late charges due to improper documentation,” McKinstry said. “To fix that, we implemented a real-time billing technician who reviews the cases as they come, checking off a list of high-miss areas.”

Because the cases are reviewed in real time, errors can be addressed on the same day as the procedure, while the report is still live and the physician is still in the lab.

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The billing technician simply asks the physician to un-sign the report so it can be corrected, and then to sign it back in. This intervention process has helped Baystate reduce its late charges to under 10%.

“We also have auto-faxing. As soon as the physician signs the report, the system auto-faxes a copy to our referring physicians within 24 hours,” McKinstry added.

The Impact of Structured Reporting on a TAVR Program

For specific procedures, such as transcatheter aortic valve replacement (TAVR), Baystate’s structured reporting allows for customization of the procedural report, or hybrid reporting, through the lens of its single-database Change Healthcare Cardiology solution.

For example, Dose Area Product (DAP) or moderate sedation times can be documented in the case and imported directly into the physician’s report. Combining structured reporting and dictation for TAVR in a single database lets Baystate quickly correlate inventory supplies. Clinicians can easily pull up every TAVR case and find any report, reducing redundant documentation.

“With TAVR, we also have interventionists and surgeons who are dictating reports. We included the surgeons in our structured report, and we added a field for the staff—the co-surgeon and the interventionalist—so they both show up in the report,” McKinstry said.

All billing is also done through the system for TAVR and structural heart disease. With the implementation of the single-database Change Healthcare Cardiology platform, Baystate Medical Center has successfully redefined its reporting program, increased data accuracy, and provided its clinicians with the information they need for an efficient cardiovascular workflow.



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2021-44740 Rev 2