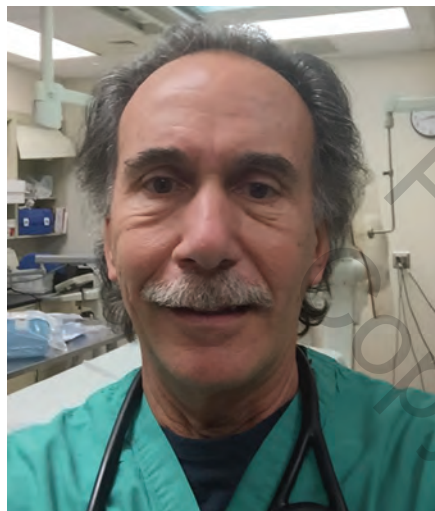


# Enabling Structured Reporting in the Cath Lab

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Cardiology has long had a tumultuous relationship with data. From the ongoing expansion of Appropriate Use Criteria (AUC) to heightened regulatory and reimbursement scrutiny, to the forthcoming additions to the National Cardiovascular Data Registry (NCDR), cardiology is tasked with reporting a rapidly growing array of data elements to meet multiple clinical and administrative objectives. While the majority of information is used to track clinical outcomes with the goal of identifying best practices and protocols to improve quality, it is also used to set policy and determine reimbursements. The stakes are high, as are the risks if the data falls short on quality, accuracy and completeness.

The stakes are about to get even higher. The American College of Cardiology (ACC) has announced that it will add two new registries — the LAAO Registry and AFib Ablation Registry — to the NCDR to track outcomes for the treatment and stroke prevention of patients with atrial fibrillation. The ACC also announced its intentions to add outpatient pediatric echocardiography to the already expansive AUC.

While reporting requirements have increased, confidence in the quality of the data being submitted has not followed suit. Issues like integration of data continue to plague practices, as do concerns about data

resulting from inaccurate, incomplete, or inconsistent procedure documentation — all of which results in questionable data that does not advance the goals of quality initiatives or allow providers to validate data submitted to NCDR.

## Contributing factors

There are many different levels of underlying challenges to ACC data integrity and reporting, the first being the quality of data itself. While most cardiology service providers strive for accuracy, the “garbage in-garbage out” analogy is still very much in play. If information isn’t accurate and complete when it goes in, data will be unreliable when analyzed, making it difficult to establish best practices, determine reimbursement or craft policy.

Further hampering data integrity and reporting efficiency is the lack of interoperability. When data is siloed in multiple disparate systems, e.g. documentation and hemodynamic systems that do not interface with the electronic health record (EHR) systems, the result can be an incomplete or inaccurate patient record.

Exacerbating the situation is the complex nature of cardiology documentation, particularly in the cath lab, which can lead to inadvertent information gaps that hinders providers’ ability to capture accurate, comprehensive, and usable data. Incomplete or inaccurate data, when it is submitted to NCDR, can actually impede the progress of quality initiatives.

## Seeking a structured solution

The ACC in late 2014 took a significant step toward resolving the issues around data integrity by collaborating with the American Heart Association and Society for Cardiovascular Angiography and Interventions, along with more than a dozen professional societies, to develop a health policy statement defining the clinical standards for structured reporting in the cardiac catheterization suite.

It was a move that many in cardiology embraced as a best practice for quality patient care. Structured reporting ensures that data is standardized, which in turn removes the variability that limits adoption of the evidence-based practices that guide appropriate treatment. Structured reporting allows information in a patient’s record to be queried in order to more fully understand treatments provided and identify any issues that may influence future care decisions. It helps clinicians determine if the care processes and protocols in place

are appropriate and ensures compliance with appropriate use criteria.

By establishing structured reporting as a foundational best practice, the statement propelled cardiology to the head of the class in terms of understanding the role quality data plays in improving care and outcomes. By ensuring every procedure report contains all the requisite data elements, all captured in standard formats, structured reporting paves the way for any cardiologist, anywhere, at any time, to quickly access the comprehensive information necessary to make fully informed care decisions. This leads not only to better outcomes, but to safer care.

## A staged approach to structured reporting

It takes more than a policy statement to make structured reporting a true foundational best practice. It requires closing the technology gaps that keep many cardiology providers from automating data capture, analysis, and reporting. Instead, they rely primarily on inefficient and less reliable manual processes that cannot keep pace with the growing number of registries to which data must be submitted.

Designed specifically for the cath lab, the maturity model nonetheless offers a logical, incremental staged approach (see below) to expanding technology in step with the needs of the organization.

- **Stage 1:** The procedure documentation system supports the capture of all relevant patient, procedure and coding information as structured data that enables relevant flow and application throughout an organization. One of the primary benefits is a streamlined revenue process, which cuts time to bill.
- **Stage 2:** HL7 integration is added to enhance and streamline interdepartmental communication and an improved medical record within the EHR. Additional benefits include automation of patient and provider profile updates, and support for sharing and immediate availability of procedure notes within the EHR.
- **Stage 3:** Introduces value-added features that create greater practice efficiencies for improved quality, outcomes and the patient experience. This includes automated trans-

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At CHI Health Creighton University Medical Center, this gap was closed through implementation of ProVation MD Cardiology. By guiding cardiologists in the capture of comprehensive case information, the software eliminates variability and gaps in documentation. It has streamlined Creighton University’s participation in numerous registries, including the NCDR, has instilled confidence about the integrity of the data being submitted, and streamlines the actual reporting process.

Creighton University Medical Center has found that, as with any technology tool, ongoing evaluation of functionality compared to current needs is key to realizing full value from our structured reporting investment. To that end, organizations may wish to deploy the ProVation MD “Structured Reporting Maturity Model” to guide adoption and implementation of their own automated documentation and structured reporting software to ensure immediate and future needs are met without overwhelming the clinical staff being tasked with integrating these tools into their workflows.

mission of referring physician letters, procedure notes ready for coder review, customized data reports, and patient education material.

- **Stage 4:** Adds integrated documentation for data consistency in all elements of the patient encounter to support ACC registry reporting. This includes meaningful integration with EHR, procedure documentation and registry reporting systems, and streamlines the downstream workflow associated with documentation.

When properly leveraged, the impacts of structured reporting will be felt far beyond the four walls of a cath lab. In today’s data-driven healthcare environment, structured reporting is an efficient way to share cardiology data between hospitals for benchmarking, comparison and internal evaluation. It can be used to determine what approach to care is most appropriate at any given time for any given patient, which can extend out into broader population health programs. ■

Disclosure: Dr. Michael Del Core reports he is a consultant for ProVation Medical.

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