

A Comparison of Internal and External Peer Review

An institution's insights into the advantages and disadvantages of a peer review process to evaluate cardiac catheterization laboratories.

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Cardiac catheterization laboratories (CCLs) must adhere to strict standards of quality in order to maintain patient safety, increase the likelihood of successful outcomes, and ensure appropriate categorization of patients and documentation of procedures. When performed using a team-based approach, in an organization with bias-free reviewers that have expertise and resources, internal peer review can be a powerful quality improvement tool. Although many CCLs have established protocols for internal peer review, these may not be sufficient for ensuring adherence to multiple guidelines and national standards. In addition, internal peer review is often a reactive process, implemented in response to specific problems or adverse events. Furthermore, clinicians may be wary and distrustful of internal peer review processes due to the perception of bias or of reviewers' "political" agendas.

External peer review can provide valuable feedback regarding improvements in quality and hospital practices. It is critically important that an external peer review program be collectively viewed by the interventional cardiology team at any given institution as credible, proactive, objective, unbiased, nonpolitical, and conducted by reputable outside experts. In 2013, the Charleston Area Medical Center (CAMC) Health System selected Accreditation for Cardiovascular Excellence (ACE) for our National Cardiovascular Data Registry (NCDR) review, as well as in 2014 to provide external quality review services to our CCL. Most important to CAMC cardiology leadership was to select a service with external reviewers who are practicing cardiologists and highly knowledgeable about national standards and best practices. A critical element in the

decision-making process was that reviews would be conducted in a blinded, randomized, and anonymous way, using standardized forms and protocols.

THE IMPORTANCE OF EXTERNAL PEER REVIEW

Peer review allows physicians to continuously learn and improve their performance and outcomes while mitigating financial risk/exposure at the same time (Table 1). Given our results as compared with the NCDR report,¹ CAMC decided to engage an external peer review service. In this report, the performance of the CAMC CCL was not rated at the level we expected. Reviewing our NCDR data motivated our management team to seek outside help in assessing the CCL's operations and advising us on areas for improvement. Although CAMC already had an established internal peer review program, we viewed external peer review as a more viable and credible path toward improving our NCDR results, as well as enhancing the overall quality of care in the CCL.

INITIATING EXTERNAL PEER REVIEW AT CAMC

The first external review was a 2-day on-site review of the CCL's data collection and documentation processes, led by a team of highly skilled nurses. This service included a review of processes pertaining to NCDR data abstraction and submission, which we regarded as particularly important because the NCDR data are reported to the public and are available online.

We next turned our attention to documentation and appropriate use criteria (AUC), which were the focus of

TABLE 1. TOP FIVE OPPORTUNITIES FOR IMPROVEMENT IDENTIFIED WITH PEER REVIEW

Opportunities for Improvement	Benefits of an Ongoing Peer Review Process
Using only a reactive peer review process, triggered by an unexpected outcome or major adverse cardiac and cerebrovascular event	Can be implemented with a regular random case review process, which can identify problems/opportunities before they occur
Knowledge gap of current guidelines among operators	Can identify outliers and ensure that all operators are performing to current guidelines/standards
Poor, inconsistent, or incomplete documentation across the cardiovascular service line	Identifies gaps in which documentation is incomplete and/or does not support medical necessity to obviate denied payment or payment penalties
Political/competitive environment among operators or cardiology practices	Takes the “politics” out of peer review and removes conflicts of interest
No validation of the internal peer review process	Validates an ongoing internal peer review process

a 2-day physician visit. Expert cardiologists delivered a tutorial on AUC, focusing specifically on diagnostic and revascularization procedures—an area of great importance to CAMC because data on these procedures are collected by the NCDR. Our management team felt that AUC-directed education and training would help us improve our results in this area.

The external peer review process also included a remote review and assessment of catheterization images and a critique of CCL techniques, allowing us to evaluate whether the proper images were taken and whether the techniques were appropriate. This independent external review was especially appealing to the roughly 35 cardiologists in the CAMC network as well as to our CCL management team. Interventional cardiologists frequently work in isolation and value the ability to consult with outside peer experts on matters related to complications, image quality, and best practices.

After the on-site visits and external review, several recommendations were made for improving data management at our CCL. One area of recommendation focused on proper documentation, an issue of heightened concern for CAMC due to reports of “inappropriate” stenting at other hospitals in our region, which resulted in significant local publicity and multimillion-dollar fines in some cases.

Benefits of Accurate Documentation

Before we engaged an external peer review service, some of our stenting procedures were categorized as “inappropriate,” as defined by the Society

for Cardiac Angiography and Interventions (SCAI) Quality Improvement Toolkit Cath Lab Guidelines and Appropriate Use Criteria.² Our external peer review provider revealed that our documentation needed to be more comprehensive to appropriately capture key elements of the patient’s cardiovascular history. As a result, many of the procedures scored as inappropriate were actually appropriate. We found that patient data were not always input accurately or that our cardiologists did not consistently verify the accuracy of the data. For example, our data abstractors sometimes failed to recognize cases of cardiogenic shock, and this omission resulted in underestimation of illness severity. When patients were characterized as being less sick than they actually were, stenting in these patients was deemed “inappropriate.” Using the SCAI Quality Improvement Toolkit calculator, we reduced the rate of “inappropriate” stenting procedures to a very acceptable rate of 5% during the quarter following the external peer review providers’ training, and our rate has been in the range of 5% to 8% since that time.

Using NCDR data, Chan et al reported that the rate of percutaneous coronary interventions performed for nonacute indications and scored as “inappropriate” was 11.6%.³ Patient presentation and history may not always fit into one of the more common scenarios, and thus the AUC cannot be applied to all patients. As a result, an organization cannot achieve a 0% rate of “inappropriate” stenting procedures. Our goal is to be mindful to more robustly document the reasons why we are proceeding with an intervention. Our documen-

tation process is now more transparent, and we have worked to minimize ambiguity in patient charts.

Another key learning from the external review process is that cardiologists and catheterization lab personnel must be extremely knowledgeable about AUC definitions. Incomplete understanding of AUC definitions can lead to improper documentation, inappropriate care, and potentially, suboptimal patient outcomes.

Process Improvement: Streamlining the Chart Abstraction Process

Our external peer reviewers also highlighted delays in data processing and reporting that contributed to our CCL's NCDR rating. Before the review, it took up to 3 months to get patient charts abstracted and submitted to the NCDR, and in turn, it took 2 to 4 weeks to review and process the chart data. By the time we received the NCDR reports, the findings did not necessarily reflect what was currently happening in the CCL. Learnings from our external peer review experience prompted us to create a process improvement goal of streamlining our chart abstraction process to take no more than 2 weeks. Our institution's transition to a new electronic medical record system will aid in this process improvement initiative. Consequently, when questions arise about whether certain procedures and interventions are appropriate, answers can be obtained much sooner than before.

With regard to the angiographic review, we presented written reports from our external peer review to CAMC cardiologists and instituted changes in the CCL based on the reports' findings and recommendations. Specific changes included more frequent use of fractional flow reserve for intermediate lesions, less reliance on IVUS, medical management for less severe lesions that could have been stented previously, and appropriate enhancement of documentation when proceeding forward with stenting borderline lesions in patients with a justifying history. Moreover, the external peer review service provided a way to implement these changes in rapid-cycle fashion, particularly those pertaining to AUC education and training.

DISADVANTAGES OF EXTERNAL PEER REVIEW

There is cost to the institution in external peer review. We considered other peer review services (see sidebar titled *External Peer Review Suppliers*) and found that there is a wide variation in price and services provided. One of the reasons we selected our external review service is that it is a not-for-profit organization sponsored by the SCAI. It is neither the most or the

External Peer Review Suppliers

Accreditation for Cardiovascular Excellence

www.cvexcel.org
(202) 657-6859

AllMed Healthcare Management

www.allmedmd.com
(800) 400-9916

The Greeley Company

www.greeley.com
(888) 517-3406

least expensive, and we were pleased that they provided outside experts and thought leaders in cardiology to review our cases and give us the knowledge and guidance we needed to optimize and provide best standard of care.

Our credentialing department needs an ongoing professional practice evaluation for recredentialing physicians to satisfy a Joint Commission requirement.⁴ We are considering working with our credentialing and/or quality department to share our external review as documentation of an ongoing professional practice evaluation. Organizations may choose to share the cost of an external review between the cardiac cath lab, credentialing (sometimes called physician staff services), and quality departments if the review is able to satisfy each department's requirements. Our external review supplier customized the review to fit our needs, but other external review providers may not be able to offer this level of service.

BENEFITS FROM PHYSICIAN ENGAGEMENT WITH EXTERNAL PEER REVIEW

A key factor in the success of the external peer review was our physicians' receptivity to the process. This was not a given, considering physicians' attitudes toward CAMC's internal peer review process, which was widely regarded as contentious, controversial, and in some cases, politically motivated. Under the internal peer review process, our cardiologists feared being singled out for poor performance. By contrast, the external peer review process was perceived as evaluating hospital-wide performance and therefore not focused at the individual practitioner level. Our physicians also expressed appreciation for being able to access

independent expert opinions regarding issues such as selection of catheters, proper injection techniques, and image optimization. Whereas some of that expertise resides in-house at CAMC, our cardiologists found it more palatable to be critiqued by outside experts with decades of experience than to receive similar feedback from close colleagues. In short, our physicians generally viewed the external peer review team as valued partners and the process as more collegial than standard internal peer review. That sense of partnership and collegiality was essential to the quick and efficient implementation of changes in the CAMC CCL following our 2014 external peer review.

SUMMARY

The external peer review experience underscored the importance of an ongoing relationship with an accrediting body such as ACE, which we intend to maintain. Although external peer review is not universally required by the government or by all private insurers at this time, the public has a heightened focus on quality hospital services. CCLs face increasing pressure to maintain and demonstrate high standards of quality. All hospital systems should view external peer review, with its unique focus on education and data collection processes, as a valuable quality improvement tool and key to their long-term success. ■

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