In 2003, administrators at Cleveland Regional Medical Center (CRMC)—a 241-bed acute care hospital in the foothills of North Carolina—reexamined its congestive heart failure (CHF) services. What they found was disappointing: Discharge instruction compliance was as low as 12%, and readmission rates were as high as 20%, with mortality rates at an unacceptable 11% in 2003.

The facility’s 31-bed progressive care unit had a 45% turnover rate per 12-hour shift. Thus, administrators determined that more

Best-practice protocols: Improving CHF outcomes

The Institute for Healthcare Improvement challenges clinicians and administrators to raise care quality through its 5 Million Lives Campaign, a sequel to the 100,000 Lives Campaign. Here, learn how one facility reduced CHF readmission rates.

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processes and strategies were needed to facilitate patient education and promote wellness among the CHF population.

**Performance improvement**

In response, the systems management department began clinical benchmarking and instituted rapid-cycle performance improvement (PI). Under this model, teams would set priorities, research best practices, and implement them within 90 days. Out of this initiative, the CHF PI Team was developed. It included representatives from quality management, the progressive care unit, the ICU, cardiac rehab, cardiac cath lab, and community case management.

Perhaps the most successful strategy was the concurrent chart review and intervention program. One FTE, the abstractor, reviewed all core measures during patient admission. This point person was responsible for accurately identifying CHF patients, intervening when elements of the care bundle were missed, staff education, and data reporting surrounding outliers and barriers to improved care quality.

The abstractor’s first task was to identify patients using daily reports that detailed admitting diagnoses. Often on these reports, there was only a symptom listed, not an actual diagnosis. A new report was developed that detailed all brain natriuretic peptide and troponin results for patients who had the lab drawn the prior day. This report, in conjunction with the Admission Diagnosis Report, helps identify CHF patients. Typically, the abstractor is able to identify at least 95% of patients who will fall into this diagnosis-related group.

The abstractor’s second task was to intervene with nurses or physicians when a care element was missing. After countless discussions and brainstorming sessions among the CHF PI Team, the suggestion was made to implement a “CHF Survival Kit.” This kit contained the booklet that tied into the CHF video, blank monthly calendars for the patient to keep and record daily weights at home, a magnet of the Progressive Care Unit’s phone number, a schedule for a cardiac support group offered by Cardiac Rehab, and a preprinted CHF educational form for the nurses to document on as the patient received education. Packets were assembled and placed at the desk for easy accessibility for the nursing staff. When bed assignment requests for patients with a CHF diagnosis were called to the floor, the staff would pull a kit and take it to the room, along with the admission paperwork.

This process worked exceptionally well, as it prompted the nursing staff to complete necessary documentation.
Completing the documentation, chart audits were conducted on every patient with a CHF diagnosis. Patients were also asked during rounds if they had received the booklet, watched the CHF video, and if their nurse had reviewed the material in the packet provided to them on admission.

**Consistency is key**

Patient education resources used between the home health agencies and the hospital were different. To eliminate this area of concern, the CHF PI Team invited the home health agencies to participate on the team and asked them to bring any educational materials used for CHF education. After reviewing each agency’s material, we selected one particular home health agency’s preprinted booklet and incorporated it into our hospital’s kit and the other agencies’ CHF educational programs. This step enabled all of the agencies to work together as a team to provide consistent education to the patients and their families.

The most challenging task for intervention was getting physicians on board with the new process. To that end, we formed the Medical Staff Quality Circle—a committee of the CNO, the hospital’s CEO, and 13 physicians who serve as internal consultants—which meets monthly to discuss quality issues. Specifically, the committee works to identify areas of focus for quality goals through a data-driven process and to engage the medical staff in leading the way to improving quality in the organization. These physicians are then charged with championing the implementation of best practices with their peers.

From the Medical Staff Quality
Circle, a physician champion for CHF improvement was chosen. This individual worked closely with the concurrent abstractor to improve the CHF physician-driven indicators—left ventricular function assessment and angiotensin-converting enzyme inhibitors/angiotensin II receptor blockers (ACEIs/ARBs) for LVSD. Together, the physician champion and the abstractor developed a reminder sheet that’s placed in the physician progress notes section of the patient’s chart, reminding the physician to either order an echocardiogram or document the patient’s ejection fraction (EF) if known. Additionally, this form prompts the physician to document appropriate contraindications if no ACEI/ARB is prescribed for patients whose EF is less than 40%.

**Ongoing process**

Staff education is an ongoing responsibility for the abstractor. As nursing omissions are identified during concurrent review, the abstractor explains the expectation of providing CHF education and smoking cessation counseling to appropriate patients upon admission. This process allows for any needs to be met by case management (medication assistance, referrals to community agencies, etc.) prior to patient discharge.

CRMC’s community-based case management agency

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**CHF OUTCOMES**

Concurrent chart reviews, physician engagement, and accountability reporting have proven to be strategies for success.
follows 31-day CHF readmissions while they’re hospitalized and at home. Currently, CRMC is moving from an education model to a model that holds nursing more accountable for these indicators.

The accountability model requires frequent data monitoring for all core measures. As the abstractor finds outliers, she reports this immediately to the unit director and educator for follow-up. Weekly, graphs that show where we are with each indicator are sent to each unit director, divisional director, assistant vice president, and executive administrator. Also, any nurse found noncompliant with the nurse-driven indicators is reported up through this channel to executive leadership.

From worst to first
Concurrent chart reviews, physician engagement, and accountability reporting are strategies for success at CRMC. In a little over a year, CRMC went from one of the worst deciles in the pay-for-performance pilot to the top decile. In 2003, we were awarded the Ralph Snyder Award of Excellence for CHF patient care. CRMC has also been chosen as a mentor hospital for CHF and acute myocardial infarction in the Institute for Healthcare Improvement’s 5 Million Lives Campaign.

Our readmission rate has declined by 37%. Our mortality rate decreased by 25%, and 96% of our CHF patients received appropriate discharge instructions within the past 12-month period. Our appropriate care score now exceeds 95%.

There have been numerous obstacles and lessons learned throughout our journey from “worst to first.” Don’t assume that the process you’ve designed is the process that staff follows. Education is vital. If people understand the whys of a task, they’re more likely to comply. A systematic communication plan is also critical, as well as timely data. Once processes have been hardwired, hold those accountable who are responsible for carrying out the processes. In the words of our CEO, “Everyone is rational from their own perspective,” so let everyone have a voice.

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