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Physician-aligned case management improves efficiency and cuts LOS

Partnership ensures that patients get the right treatment at the right time

INTEGRIS Rural Health (IRH), based in Oklahoma City, has been able to cut its systemwide average length of stay by at least a day across its eight-hospital system by implementing a physician-aligned model of case management.

In a physician-aligned case management model, the case manager is assigned to work with patients of a specific group of physicians and partners with each physician to get the patient through the hospital stay as efficiently as possible, removing any barriers that may delay care and ensuring that the patient is at the appropriate level of care.

"In addition to providing the best level of care for our patients, the teamwork between our physicians and case managers generated a lot of savings by providing better utilization of our services," says **Denise Caram**, MS, CPUM, CPUR, director of support services for IRH.

The model, established about three years ago, is so popular with physicians that when the hospital surveyed them, 95% reported that the case managers help make their jobs easier, Caram says. **(For more information, see related article, p. 99.)** Since the model was established, the case management departments at some of the hospitals actually have been able to add staff because management has seen an increase in reimbursement along with the decrease in length of stay, she adds.

In a physician-aligned model, the case manager is the physician's "right-hand person," says **Carol Reeder**, RN, BSN, MSA, a consultant with McCaw Park, IL-based Cardinal Health Consulting & Services, who helped IRH establish its case management model. Ideally, a case manager works with a single group of physicians and has a clinical background that is pertinent to the physician's practice, she adds. For instance, a nurse assigned to a group of cardiologists would have an understanding of the clinical perspective and overall expectations for patients receiving cardiac care.

Case managers follow the patients throughout the hospital stay no matter where they are placed.

"The case manager knows the patients and understands their needs because they work with the same physician groups," Reeder says. "The patients and their families get to know the case manager and utilize the case manager as a resource and coordinator of care." The case manager helps coordinate the care of the patient in the hospital by identifying when other disciplines, such as physical therapy, social work, or home health need to be consulted, when a less intense level of care may be appropriate, and by arranging for the discharge needs of the patient, she says.

The case manager makes sure that when the physician makes rounds, he or she has current and complete information about each patient, such as diagnostic studies and lab results, so he or she can make informed decisions.

"This allows patients to be moved to less intense levels of services as soon as it's appropriate, thus opening beds for new, more clinically complex patients," Reeder says. In addition, having current, timely information available to the physician helps with clinical reviews for continued stays and may decrease reimbursement denials, she adds. "If we can reduce the barriers that are there, we can get efficiency of cost, and all those good things will follow, but that cannot be the initial focus."

A partnership between case managers and physicians can dramatically improve patient care as well as helping physicians, Reeder says. "Case managers are in so many areas of the hospital that they are able to identify potential barriers to the patient moving through the system."

For instance, when lab reports aren't available on time, the physicians are frustrated because they don't have the information they need to evaluate the next step for the patient.

Reeder also suggests weekly interdisciplinary meetings with all ancillary departments to discuss moving patients through the continuum. The cases discussed during these meetings would depend on what cutoff the hospital selects. It could be length of stay or patients whose care has reached a certain dollar amount. "The team should look at issues that are prolonging the stay to see if there is something as an organization that can be done to help move the patient along. Sometimes the patients are just extremely sick. In those cases, we look at whether specialists have been called in."

The medical director for case management typically runs the weekly meetings. Physicians are always welcome at the meeting. If a particular patient has been a long-term problem, Reeder recommends inviting the attending physician to be present. "Sometimes just hearing questions asked by various disciplines can help a doctor come up with a new strategy," she says.

Physicians at IRH hospitals have welcomed the new model, Caram adds. "The physician see the advantages of having someone help them make the referrals to long-term care if needed. They see the case managers working with the family members on social needs and making sure end-of-life issues are taken care of." ■

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CM model eliminates piecemeal patient care

CMs, physicians work closely at health system

Before INTEGRIS Rural Health (IRH) implemented its physician-aligned model of case management, the process was piecemeal throughout the eight-hospital system.

"There was no consistency in any hospital and no systematic approach to case management that would produce long-term benefits," says **Denise Caram**, MS, CPUM, CPUR, director of support services for IRH with headquarters in Oklahoma City. "The hospitals typically followed the utilization management plan with very little focus on controlling costs and lengths of stay."

Under the old model, utilization review, social work, and case management were separate entities. Some case managers were from a utilization review background; some had a master's degree in social work, and others were RNs.

"There was not a formal process. The case managers had the clinical background but did not have the financial background to view the big picture. They didn't realize the impact their department could have on the hospital," Caram says.

The hospital system began implementing the physician-aligned case management model in early 2000. The aims of the realignment were to ensure that patients were at an appropriate level of care, help case managers build a stronger relationship with the physicians, improve customer satisfaction, and produce better outcomes, she says.

"There was a lot of resistance initially to the new model, and in some hospitals, the turnover rate was almost 100%; but it has worked out very well. We have a very knowledgeable, comprehensive, and cohesive group now," Caram says.

Before they put the model into place, IRH staff interviewed the physicians and other hospital staff to gather information and gain support. They did an overall assessment to find out what each hospital was doing in terms of utilization and share the report with physicians and the administration, making the overall transition smoother.

"Under the old system, the physician/case manager relationships were sometimes adversarial. Now the doctors appreciate the case managers and often call on them for their help," Caram adds.

When the new system was implemented, the case managers were assigned to a group of physicians, either by physician group or physician caseload. The goal is for each case manager to see no more than 20 to 25 patients on a daily basis. Each hospital has a physician advisor to case management who conducts interdisciplinary rounds and is available to the case managers for help on difficult cases.

The case managers developed a preference card for each physician that includes information on the physician's nursing home preference; preferred home health agencies; the best time to call; and the best way to communicate, whether by cell phone, pager, or calling the office.

"The case managers know the physicians' patterns of visits, so most of the time they can meet with them every day, but if they miss them, they know how the physician wants the call handled," Caram adds.

The physicians were asked to develop order sets (previously called clinical pathways) for their top five DRGs. Case managers check each time a patient is admitted to see if there is an order set on the chart and follow closely to make sure everything on the order set is followed.

For instance, the hospital order set for DRG 89 (pneumonia) calls for patients admitted with pneumonia to receive their first antibiotic within two hours of admission. The case managers check to make sure it was done and, if not, question why.

"We begin to build off the process which will help provide quality of care to the patient and at the same time impact the length of stay and utilization of services. Our overall emphasis to the doctor is that we are concerned with quality and ensuring that we provide the most appropriate level of care for each patient," Caram says.

On the day of admission, the case managers start looking at what the patient needs and developing an action plan. For instance, if the patient is admitted with pneumonia, they check to make sure the X-rays and laboratory work are ordered.

They ask the physician if he or she foresees any difficulty with the patient and try to anticipate the patient's discharge needs. For instance, if the patient came from a nursing home, they ask if the physician wants the patient readmitted there.

The case managers look carefully at the level of care patients need on the day of admission as well as the severity of illness and begin planning the discharge procedure.

Daily and weekly interdisciplinary rounds, chaired by the physician advisor to case management, have made a big impact on length of stay and use of services, Caram says. "During daily

rounds, we discuss any change in patient needs and whether we foresee any complications occurring. At weekly rounds, we discuss patients with a length of stay of more than four days, complicated patients with social and family problems, and patients who have had a turn for the worse."

Each team member discusses the discipline's treatment plan for the patient, and the entire team discusses how to better handle the case. IRH uses Interqual criteria for length of stay.

"We look at what is happening with the patients, why are they here, and what is out of the norm," Caram adds.

Each hospital has a daily census form that tells the case manager the diagnosis, the length of stay, the charges per case at the time, and what the geometric length of stay for each patient should be for that diagnosis, as long as there have been no complications. The case managers also use a balanced scorecard that shows the case mix and utilization of resources, and other data on a monthly and quarterly basis.

"We developed both of these tools to make the case managers' job easier. They are great tools to help guide us through the process," she says.

The case managers at one hospital actually make recommendations to move patients to skilled nursing facilities or, if they are extremely ill, to the long-term care part of the hospital.

"The physicians are fine with their recommendations, and I am not sure they would have [been] in the old model. This allows case managers to be creative in movement of patients to other levels of care," Caram says.

For instance, there was one patient who no longer needed to stay in the hospital and did not qualify for Medicare but needed medical assistance and wanted to go home. Rather than keeping her in the hospital, the multidisciplinary team discussed her during weekly rounds and, with the support of her physician, decided to send her home with home health paid for by the hospital. The hospital still paid for her care, but it was much less expensive than leaving her in the hospital, Caram says. "We have been creative in doing what we can to move patients through the continuum. We've paid for durable medical equipment if that's what it took to get the patient home."

Case managers in the hospital system attend quarterly education meetings during which they share patient strategies, discuss changes in Medicare and other reimbursement, and learn from each other, she says. "We did not get where we were without education. That's why we have quarterly educational sessions to broaden our knowledge."

Over the past two years, with Caram's encouragement, the case management staff have gone through training for Certified Professional Utilization Management (CPUM) credential. All have passed. ■

Understand patient care from physician perspective

The right tactic can help eliminate animosity

When **Carol Reeder**, RN, BSN, MSA, first goes into a hospital to consult on setting up a physician-aligned case management model, she encourages case managers to try to understand what physicians have to deal with in their daily practice.

For physicians, only about 10% to 15% of their focus is on hospitalized patients because they have other demands on their day, she points out.

"Physicians often have crises going on with patients calling them from home, patients in the office. Case managers don't always appreciate the complexity of the physician side," adds Reeder, a consultant with McCaw Park, IL-based Cardinal Health Consulting & Services.

On the other hand, when case managers are in a hospital setting, their entire focus is the patients in the hospitals. "The case manager / physician relationship fosters trust, respect, and helps provide continuity of care for the patients," she adds.

She cautions case managers to emphasize that they are working to ensure that the patients get the highest quality of care possible and are not just concerned with cutting costs. "You don't want them to see your interventions as though the organization is monitoring the doctor from a cost-saving standpoint. That's the fastest way to turn off a physician."

If the emphasis is on keeping down the length of stay, physicians tend to bristle when they hear the message, Reeder adds. They often say that the case manager isn't listening to them or taking into account that the patient is an individual with specific needs, she adds.

She advocates that the case managers talk to the physicians in the physician group they work with to find out their likes and dislikes. For example, find out when they want a case manager to call them and whether they'd prefer that the case

manager call their office, cell phone, or page them. "The case managers should let physicians know that they are not trying to be obtrusive but want to help them. Ask the physician what they want to know and when they want to know it, and make sure they have the information," she adds.

Reeder encourages case managers to make rounds with the physicians so they'll be on hand to ask questions. For instance, if a case manager looks at a new admission for appropriateness and there is a question, the case manager never should suggest to the physician that the patient's admission is inappropriate.

"The approach we encourage is telling the doctor that there isn't enough information to get the admission certified and is there something else he or she is thinking about. In casual conversation, the case manager can get enough information to get the patient approved," she adds.

Case managers should tread lightly to make sure the physician doesn't construe their suggestions as telling them how to practice medicine, Reeder cautions. For instance, instead of reminding a physician his or her patient with pneumonia needs a chest X-ray, the case manager could say, "Did you want to schedule the chest X-ray today?" ■

If info you need is in your system, can you find it?

Work with your hospital's IT department

Today's case management departments need access to information as quickly as possible, and that can be a challenge unless your hospital's information technology (IT) system is tailored to fit the needs of the department and someone knows how to retrieve the information that's needed, asserts **Don Collins**, owner of Clarity Report Development, a Paradise, CA, computer technology consulting firm.

"In general, the health care industry is still reeling from the computer technology that was thrust upon it 20 years ago. The systems today are supposedly better, stronger, and faster, but the typical user has been left behind because the technology and tools tend to be a little outside their realm," he says. Collins has worked with hospital case management directors for about eight years, helping them navigate the technology field.

"There is a huge gap between the objectives they want to achieve when it comes to information and what they are actually able to get out of their computer systems," he says.

Denial data usually are at the top of the list of information that case management directors want to get from their computer systems, Collins says. They need to know what claims are denied and why, which insurance companies deny the most claims, and which physicians incur the most frequent denials.

"Because of the pressure on hospitals these days, they can't wait three months and do a retrospective study. They need information concurrently so they can quickly and aggressively pursue appeals," he says. Case managers need to be able to justify their department, and this takes data, Collins says. For instance, the case management department could document a decrease in the number of denials or an increase in the appeal rate and determine what that means in terms of dollar savings. But they've got to be able to gather the data first, he adds.

According to Collins, hospital case management departments typically fall into two categories: those with a large database system purchased by the hospital information services department, and smaller departments that survive with pen and paper or basic tools.

Both types face problems when it comes to getting the information they need, he says. The case management departments with high-tech equipment often have laptops the case managers can take with them or computers they can use at nursing stations. "A prevalent problem with this kind of system is that getting the kind of information a case management director needs can be a real problem," Collins says.

In many cases, the organization has purchased a generic type of software product that never meets the specific needs of a case management department. The case managers with basic tools may use just pen and paper or an off-the-shelf spreadsheet product to collect their data.

These departments would like to have a better system, but often they're too small to justify purchasing it, he says.

"In these departments, it's always panic time when somebody asks for data because it's usually strewn across a number of office desktops. This means somebody has to come in and do a lot of manual manipulation to get the data in the form needed," he says. Case management directors have a keen sense of what information they want, but often they don't know where it is and how to retrieve it, Collins says.

Part of the reason is that software companies are packing their applications with so many features and functions that very few people can figure out how to use all of them.

"Software systems are often overdesigned, and getting the information you want requires a lot of time and effort. There's a big gap between the technology in a database and the expertise of the people who are using it," Collins says.

Even the smaller systems have some basic features and functions that can improve the case management department's efficiency. You just have to know how to use them, he says.

In many cases, someone in the case management department has the skills and knowledge to get what you need out of your IT system, you just have to be able to find them and harness their talents, often with the help of the IT department.

"The [IT] department can give case managers basic tools and pointers for getting the information they need out of their computer systems. But case management directors have to know how to speak their language and give them an idea where the information is coming from," Collins says.

Start by figuring out what information you need for your day-to-day operation and what data you need for your reports to management. Find out if the information you need is being collected, who is collecting it, and where it is stored in the system. This often means opening your database application, scrolling through the various screens, and finding out where the information exists. "This will help clarify the type of reports you need and help them teach you how to retrieve the data," he adds.

When your hospital buys new IT equipment, the case management department should be closely involved in the decision-making process or risk not being able to get the kind of reports it needs, he adds.

"Even when case managers are involved, they may not get what they want out of the system because typical software demonstrations don't always speak to the challenge and complexity of working with database operations," he says.

List the things you expect the system to be able to do for you. Choose the three most important and make sure the database system the hospital is considering will meet that need. Have the sales representative put together a scripted demonstration that will show you how to use the software to meet your specific needs.

"People often are so wowed by the initial software demonstration that they don't realize that some of the things they want are left out. Usually, there is a hidden expectation that is never met," Collins says.

Don't rely on just asking the sales representative, who may just want to say yes to your questions and make the sale. "It may be a matter of the nature of the question meaning two things to two different people. The best way to find out if it meets your needs is to insist on an actual demonstration," he recommends. ■

Study shows QI helps heart attack patients

Reminders, checklists helped improve care

Combined results from three studies conducted in 33 Michigan hospitals show it's possible to improve the care provided to heart attack patients after admission by reminding physicians, nurses, and patients about proven therapies. By incorporating a system of reminders, standing orders, and checklists into routine care, the study shows, hospitals significantly improved the percentage of patients receiving certain proven treatments and lifestyle counseling.

After the system was put in place, there were jumps in the use of individual treatments that ranged in size from 5.6 percentage points to 34.8 percentage points.

The new results come from the latest phase of a study sponsored by the American College of Cardiology (ACC) and led by members of the Michigan ACC chapter under the direction of researchers at the University of Michigan Cardiovascular Center in Ann Arbor.

They were presented recently at the ACC's 52nd annual meeting in Chicago. The study was led by **Kim A. Eagle**, MD, the Albion Walter Hewlett professor of internal medicine and chief of clinical cardiology at the University of Michigan Health System (UMHS). "These results leave no doubt that if hospitals and caregivers adopt tools that can help them improve care and create systems to make sure those tools are used, they can improve their performance on quality indicators, which means better care for patients," he says.

The study, called ACC AMI GAP for the ACC's Acute Myocardial Infarction Guidelines Applied in Practice, seeks to find ways to help physicians and hospitals deliver the care outlined in heart attack

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CRITICAL PATH NETWORK™

Diabetes QI program cuts complications by 60%

JCAHO honors program with Codman Award

Quality improvement projects can be especially challenging if you try to implement them on a systemwide basis across many health care institutions, but a diabetes project in Iowa shows that it can be done if you give people the tools and let individual organizations decide how best to use them.

The project to standardize and improve diabetes care grew out of the Des Moines-based Iowa Health Care System's overall effort to unify as a system, says **Tom Evans**, MD, vice president and chief medical officer. With 11 hospitals in the system, he says it was a challenge to standardize clinical care, but everyone knew it was the way to improve quality and probably could help lower costs as well.

"It's one thing to be together as a health care system, but what is our joint commitment to quality?" he asks. "In 1998, the system declared war on diabetes, singling out that area of care as one where we could see tremendous improvements if we all got together on what we should do. It's been a wonderful journey, but we had to figure out how to do it."

Five years later, the Joint Commission on Accreditation of Healthcare Organizations is recognizing the system for successfully bucking the trend in Type 2 diabetes — one of the fastest growing health problems in the United States.

Iowa Health System recently received the Ernest A. Codman Award for helping its diabetes patients successfully manage their diabetes. By collecting and using data to improve care for 58,000 diabetics, served through its 11 hospitals, Iowa Health was able to reduce hemoglobin A_{1c} (HbA_{1c}) levels, which are higher for diabetics, to near-normal levels in most patients. The Codman Award recognizes health care organizations for excellence in the use of results measurement to improve quality of care.

Iowa Health System is the state's first and largest integrated health care system. One of the state's largest employers, as well as its largest health care provider, Iowa Health employs more than 17,000 people statewide. Last year, it saw nearly 270,000 individuals in its emergency departments and had close to 100,000 admissions.

Leaders from Iowa Health decided that the way to provide the highest possible quality diabetes care was by recognizing that education, nutrition, and lifestyle management are the keys to controlling diabetes. The outcomes achieved over the course of three years have occurred as a result of the system working together from eight communities for its patients across Iowa and parts of Illinois and Nebraska, says **Sam Wallace**, president and CEO of Iowa Health System. The system's broad coverage meant that a diabetes quality improvement (QI) project could affect a huge number of patients, he says. Iowa Health serves about a third of all patients in Iowa. "We believed that as a health delivery system with statewide reach and broad-based clinical research capabilities, we could make a positive difference to those in our service area suffering from diabetes," he says.

Standardization was a key part of the initiative. Each hospital had diabetic teaching centers that, judged individually, were doing a fine job with their patients, Evans says. But the quality improvement team knew that standardizing the care would result in improvements across the board.

"Each teaching center had a lead diabetic educator or coordinator, so we recruited them to create a work team," he says. "We planned for three meetings. In the first, everyone talks about the

wonderful things they're doing. That's sort of an inventory to get things out on the table and let people establish that they're already doing good work. It's important for them to establish that so that no one feels like they're being dragged in because they're substandard."

In the second meeting, the work team looked at what is standard in the industry for diabetes education, and what best practices are available. At that meeting, the work team also created a "joint-envisioned future" that detailed where Iowa Health wanted to be in the future regarding diabetes education.

"That was the ideal situation, the way we would handle diabetes education if nothing stood in our way. Then we came back with a third meeting to discuss the joint commitments that we will all use to get to that future," Evans says. "We distilled that into bullet points we could use to get to that future."

To reduce HbA_{1c} levels and control chronic diabetes, the team took these steps:

- It adopted a standardized education curriculum for Type 2 diabetes for patients and caregivers.
- The team adopted uniform standards of care based on national quality standards.
- Iowa Health committed to providing staff training in patient education, data collection, chart abstraction, data entry, and behavior evaluation.
- The system introduced the use of reminder calls to patients for return appointments.

"The most important steps were using common metrics, common data collection techniques, and common definitions," Evans says. "We achieved most of that in the first year, making sure we were all using the same information and playing the same song."

Iowa Health's new approach has been in place for about three years. As a result of this initiative, the average HbA_{1c}, which measures blood sugar in diabetic patients, fell from 9.2% to 7% during the most recent six-month data analysis, Evans says. The reduction in HbA_{1c} is estimated to reduce the risk of further patient complications by 30% to 60%. The work of the multidisciplinary team has paved the way for implementing other disease-specific quality improvement programs, including programs for asthma, congestive heart failure, community-acquired pneumonia, total joint replacement, and acute myocardial infarction, he says.

According to Evans, the rapid success of the program is the result of utilizing a consistent curricula along with a strategic plan implemented consistently across the system's hospitals. Diabetes education centers at each of the hospitals have met the strict requirements for recognition from the American Diabetes Association, and they have implemented treatment standards consistent with those developed by the respected Minneapolis-based International Diabetes Centers.

In addition, Iowa Health realized some financial benefits. All of the diabetic teaching centers had been operating as loss leaders, so Evans challenged the QI team in 2001 with a new goal: remain open in 2002. The work team looked at cost per hour and exactly how each site was delivering the education to patients, with an eye toward improving efficiency. The biggest change to grow out of that focus was a switch to group sessions rather than individual patient education. In the first six months of 2002, that change and other improvements in efficiency lowered the operational costs of the clinics by 20% per hour.

Evans says an important part of the team's work was standardizing expectations and methods while still leaving some degree of autonomy to each individual clinic. "Consistency in how we treat diabetes and how we measure the results allows us to determine which are the best practices and share them among all our hospitals and doctors," he says. "But health care is local, so you can't just give everyone a recipe and tell them follow it. We tried to focus on identifying a common destination and then give them the tools to get there. We helped them figure out the route to get there, but we didn't tell them the route." ■

Project hinges on top quality hospital data

Mortality rate for AMI drops 36%

A quality improvement project in Dayton, OH, achieved a 36% drop in mortality from acute myocardial infarction (AMI) among a group of hospitals cooperating on the effort, and participants say it could not have been done without high-quality data collection.

Recently, the Dayton consortium won a Codman Award from the Joint Commission on Accreditation of Healthcare Organizations for outstanding quality improvement projects.

The project was one of the first tackled by the

Greater Dayton Area Hospital Association, which in 1998, formed a consortium of 20 local hospitals, area employers, physicians, and quality management professionals to support the development of accurate and comparable measures of cost, quality, and patient satisfaction.

As a result of this consortium, competing hospitals began working together to raise the quality of care they provide to the community, says **Joseph M. Krella**, FACHE, president of the association. Participating hospitals agreed to annually release aggregate cost and quality indicators to local business leaders.

Beginning in year three, hospital-specific cost, quality, and patient satisfaction measures were released to local business leaders.

The three-year time frame for the release of hospital-specific performance provided enough time for individual organizations to benchmark results against the aggregate data and share best practices in a collaborative effort that would benefit all, Krella says. Setting this time frame from the outset was key to obtaining the cooperation of the hospitals involved, he says, but the hospitals compared data among themselves in the first year of the project.

"Our initial report listed a number of diagnoses and comparative data for mortality, length of stay, and costs," Krella says. "The report compared hospitals in Dayton to each other, and also counties within the state and some state-to-state comparisons."

Following that initial report, the participants realized that Dayton and Montgomery County were outliers with a higher rate of mortality for AMI than the risk-adjusted model would have predicted. So AMI was targeted as one of the initial indicators for improvement. The aggregate AMI rate for Dayton was above the Ohio state average and significantly above the predicted rate. As a result of this collaborative effort, there has been a 36% drop in AMI mortality rates in the city over a three-year period.

The work of the consortium has evolved from a report card focus to a true collaborative approach to process improvements, says **Joseph Cappiello**, vice president of accreditation field operations for the Joint Commission on Accreditation of Healthcare Organizations.

"Without a doubt, this multiorganization team effectively used performance measures — process and outcome — and performance improvement to elevate the level of care. The performance of all of the hospitals and providers in the group improved significantly while the amount of variation between them was minimized," he says.

"The level of care provided by each is at a comparable level and continues to be improved. The entire community is practicing evidence-based medicine, and the quality of care in the community has improved as a result," Cappiello adds.

Data must be transparent to participants

To address the AMI outliers, the consortium formed a quality council made up of hospital CEOs, medical directors, and leaders from the business community. This quality council meets quarterly and is responsible for overseeing the entire project. The next tier down is a committee of medical directors, and then a steering committee made up of hospital quality managers and business leaders. Beneath that level is a process-of-care committee made up of clinicians and others involved in the particular quality issue being addressed, such as AMI.

"This has truly been a collaborative effort among organizations that have set aside their competing interests in order to improve the quality of health care provided to area residents," Krella says. "Our accomplishments would not have been possible without the commitment and dedication of hospital management, quality management professionals, physicians, and area business leaders."

Cooperation among the participating hospitals was crucial to the success of the project, says **Rick Snow**, DO, MPH, a physician in the community who worked with the hospital association on the project. A large part of his job with the project was to encourage cardiologists to participate by sharing data and taking a critical look at their own performance. Initially, they were concerned about whether there were problems with the data that would explain the differences in AMI outcomes, but the consortium took great pains to ensure that the data were reliable.

"One factor that came up was DNRs [do-not-resuscitate orders], which are not included in the administrative data we were using, so there were questions about how that might have affected the data," he says. "But we looked at some factors that might be associated with DNRs, like Parkinson's disease, dementia, and stroke, and we incorporated those into the data because they might be indicative of a DNR. They were predictive and had some effect on the risk of death, so we included them in the model."

Snow says it is important that physicians see

the data as "transparent," meaning they fully understand where the data came from, along with any shortcomings or omissions. Otherwise, they will wonder about the real cause for the variance in mortality rates and not focus on what can be improved.

"When the data are transparent, you're able to move them beyond the data and the model to get them asking questions about the processes of care, to start a dialogue," he says. "A real lesson is that you have to encourage participants to continually ask questions of the data and have the infrastructure to answer those questions."

Quality of data is key

The quality of the data was key to achieving a 36% reduction in AMI mortality over three years, Snow says, and he credits quality improvement professionals with gathering the valuable data.

"The QI professionals were very instrumental as the project evolved from a peer-review model to a process improvement model," Snow says. "They are the experts in data collection, and we turned to them for that key part of what we were doing."

Data were culled from administrative data sources such as the discharge abstracts usually sent to state databases, but the consortium did not automatically accept those data as reliable. Striving to give physicians the most confidence possible in the data, the consortium had physicians compare information in actual medical records to what was in the database for a specified period. When the data checked out, the participants accepted them as true indicators of what was happening at the facilities.

Quality professionals also were instrumental in providing peer-review protection to the consortium's meetings, working through the Ohio Hospital Association to get a special law passed in the state legislature granting peer-review protection. That helped the physicians discuss their modes of care and particular cases openly, Snow says. "They would not be as willing to bring that kind of detail to the table without some protection, and rightly so. That gets very close to issues of liability."

The data proved important not only in determining which hospitals needed to improve AMI care, but in showing what methods could improve mortality. A lack of national standards meant the consortium had to develop their own local benchmarks, using risk-adjusted mortality to identify the hospitals with the best outcomes and then look to their processes for benchmarks. Reperfusion turned out to be a significant factor, with the better performing hospitals defining ideal populations for reperfusion and carefully timing reperfusion. Smoking cessation and early use of beta blockade also were identified as best practices.

The three hospitals identified as outliers saw their combined AMI mortality rate fall from 9.88% in 1999 to 6.32% in 2001, a 36% reduction. For comparison, the state of Ohio's AMI mortality rate fell from 8.29% to 7.48% in the same period, a reduction of 9.8%. Congestive heart failure, pneumonia, and patient safety are among the next targets for the consortium, Krella says. The group has moved from annual reports to giving participants quarterly data, which the institutions then share with individual physicians.

"We're collecting process measures, related very closely to the Joint Commission's core measures," Krella says.

"We're feeding that information back to the institutions in almost a real-time manner, which leads to quicker analysis and a quicker implementation of improved processes," he adds. ■

CMS releases proposed rule on inpatient payments

The Centers for Medicare & Medicaid Services (CMS) has released its proposed rule for inpatient Medicare payments for fiscal year 2004.

Among the key items in the nearly 1,000-page rule are the following.

- CMS has calculated the market basket's increase in the cost of care to be 3.5% for FY 2004. However, due to budget neutrality and other adjustments, average payments to hospitals will rise only by 2.5%.
- The rule expands the post-acute care transfer policy to an additional 19 diagnosis-related groups. In an article by the on-line news service *AHA News Now*, the American Hospital Association states that the estimated loss to hospitals would be $160 million in FY 2004.
- The rule raises the outlier threshold for extremely high-cost cases to $50,645 from $33,560. AHA said it expects a separate outlier rule soon from CMS that will contain adjustments expected to reduce that threshold.

To see the rule, go to: www.cms.org. ■

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CHF readmissions decline as med needs addressed

'Medication Mission' improving quality of life

A discovery that came out of a congestive heart failure (CHF) project led to a "Medication Mission" that is improving quality of life and reducing readmission rates for patients at St. Joseph Health Center in Warren, OH.

While looking at factors surrounding the treatment and readmission of CHF patients, case managers realized "there was a compliance issue around being unable to afford the medications" the condition requires, says **Mary Spano,** RN, BA, manager for case management services.

"We decided to work on [the medication issue] as a way of increasing the overall quality of the CHF program," adds **Valerie Mihalik,** RN, CCRN, performance improvement coordinator. The 30-day readmission rate for the first patients to benefit from the Medication Mission went from 12% to zero, she notes.

The CHF project began in July 2001, Mihalik explains. "We developed an entire program from beginning to end, which included standing order sets for admission as well as discharge and nursing protocol for the care of CHF patients — how often nurses assess patients, take vital signs, weigh patients, what they teach. We even had a unit specified for heart failure patients, with finely educated nurses who were experienced in that area.

"The thing that kept glaring at us," she adds, "is that the big problem was that patients could not afford their medications."

A large number of pensioners in the Warren area have lost health care benefits as a result of the large steel companies for which they had worked going out of business, Mihalik notes. "As a result, we're seeing a lot more patients who are underinsured or uninsured, especially for pharmaceutical benefits."

Caregivers would get wonderful feedback from patients on the treatment and education they received, she adds, but the conversation often would end with, "Don't bother filling that [prescription] out. I have $600 a month to live on, and the [medications] cost $600."

As hospital staff began to look at what could be done to address the problem, Mihalik says, "we got a lot of inspiration from the mission of our organization, which was founded by the Humility of Mary Sisters. Our mission statement from the sisters is to 'extend the healing ministry of Jesus to the poor and underserved.' We also looked at the example of Mother Theresa."

The CHF program's physician advocate is a cardiologist who had worked with Mother Theresa and who is very passionate about helping the underserved, she notes.

With that inspiration, funding from the St. Joseph Development Foundation, and the cooperation of Trumbull County's SCOPE (Senior Citizens Opportunity for Personal Endeavor) Center, the health center began its Medication Mission program, Spano says.

"In conjunction with [the county], we hired and underwrite the salary of a prescription assistant, who makes every effort to see [participating] patients while they are in the hospital," she continues. That person begins the process of qualifying the patients to receive help from the pharmaceutical companies' indigent funding program, and facilitates that. It takes about six weeks to get those medications once the paperwork is set up."

"What we started doing," Mihalik says, "is providing a 30-day supply with one refill of CHF medication, and then added [other drugs] as we found we could afford it. We added all cardiac medications including blood pressure meds, then diabetic medications including glucometers and testing strips, because a lot of our patients have multiple things going on."

Now, she adds, a recipient might be a mother who needs antibiotics for a sick child.

Patients initially were given a 60-day prescription, notes case manager **Tammy Rienzi**, RN, but it soon became apparent that most patients were receiving the pharmaceutical company benefit before all the drugs were taken. To save costs, she adds, program administrators went to the 30-day prescription, with one refill.

The multidisciplinary committee that meets every other month to oversee the program recently discussed adding pulmonary medications, including those for chronic lung disease, to the list of drugs the medical center provides, Rienzi notes.

The idea, Spano explains, is to "create a bridge" so that there is no interruption in medications between when the patient leaves the hospital and when the pharmaceutical funding program kicks in. Once the transition is made into that program, which is administered through the senior center, the benefit opens up to include any of the medications the patient needs, not just those "bridged" by the hospital, she points out.

The hospital directs its funds toward providing key medications, such as ACE (angio-converting enzyme) inhibitors and beta-blockers, without which the patient will end up back in the hospital, Mihalik notes. "If the patient is without the oral medications that will lower cholesterol or help calcium loss for six weeks, they can get by."

Before the medication program was instituted in February 2002, the hospital had been averaging a 14% 30-day readmission rate for its CHF patients, she says, "which is about the national average." Now, Mihalik adds, the 30-day readmission rate for those who have been helped by the program is zero, and 68% of the patients helped had no readmissions for 204 days.

Patient screening is thorough

An extensive process is in place to ensure that the patients who are most in need are served by the program, Spano says. "They are identified by a case manager or by any staff nurse or physician. Then, because we are a religious-based hospital, someone from the pastoral care department talks to the patient.

"From the case management perspective," she adds, "we also check to see that the patient has no [prescription drug] benefits or that they are exhausted. We have to be prudent with the dollars we have available."

In addition, Mihalik says, a clinical pharmacist reviews the patient's medications to make sure they're appropriate, that there are no contraindications, and to determine whether substitutions can be made.

"At first," Spano notes, "we thought people might take advantage and come back for free medications, but that's not the case at all. Once they get in the [pharmaceutical indigent funding] program, their needs are being met and they don't return with the same needs."

In fact, adds Rienzi, she actually has patients who are offered the benefit and say, "I have access to some money. Give it to somebody else who really needs it."

One of the perks of her job, she notes, is being able to go to patients and tell them the hospital will supply their drugs for free for 60 days. "It's the most wonderful thing to see them just light up."

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Follow-up calls improve discharge instructions

Contact helps with problems, reinforces opportunity

A process for making follow-up calls after new moms are discharged with their babies from Sacred Heart Medical Center in Spokane, WA, has helped to improve discharge instructions at the health care facility. Performance-improvement projects have been initiated by reviewing the answers to the questions asked during the interview. This process can work just as well in other areas.

This helps pinpoint areas where the information taught might not be clear, says **Julie Emery**, RN, assistant nurse manager at the Women's

Health Center. For example, if many of the women have questions about sore nipples while breast-feeding, more education may be needed on this topic, she says.

Postpartum follow-up calls are made 24 hours after discharge, again at 72 hours; and a third call is made if the mother is having difficulties with the baby. Registered nurses who work the help line at the center make the calls.

The calls are scripted so all nurses ask the same questions. A comment section on the assessment form is used to note details on each patient because the nurse who makes the call 24 hours after discharge doesn't necessarily call back at the 72-hour interval.

The questions focus on both the mother and the baby. For example, the nurse will ask the mother questions about her breasts to uncover problems such as engorgement. Questions about the baby include the position he or she is sleeping in, because Sacred Heart recommends that babies sleep on their back to help prevent sudden infant death syndrome.

The calls provide an opportunity to remind new mothers about their baby's immunizations and follow-up visits. A general question about how staff at Sacred Heart could have made their stay better also is included.

Very often, a new mother has problems with breast-feeding. If the RN making the call can't answer her questions, a lactation consultant takes the call. "We always have one lactation consultant working the help line," says Emery. The new mothers can make an appointment to see one of the lactation consultants at the Women's Health Center as well.

If patients cannot be reached at the 24- or 72-hour intervals, a message is left on their answering machines only if they have given their permission. "If we can't reach them at all after the 72 hours, we send a postcard and tell them to call us anytime," Emery says.

Teaching for new parents is initiated before the birth of the baby during a one-hour pre-delivery visit at the Women's Health Center. Information about the visit is mailed to the couple so they can go over the questions before their appointment. Teaching includes care of the mother and baby following delivery, safety concerns, and breast-feeding. The couples also create a birth plan.

"We get their chart started here, and then we take it over to the birth place and it is continued there. This gives us an opportunity to get to know them a little bit before we talk with them later on the phone after they deliver," says Emery.

The postpartum calls through the help line at the Women's Health Center have been so helpful to patients that the nurses have begun calling women following such surgeries as hysterectomies, mastectomies, and bladder repairs.

The calls are made 72 hours following discharge, with questions covering such issues as pain, care of their incisions, problems with drains, whether they have enough help at home, and if they have made their follow-up appointment with their physician.

If pain is not being controlled effectively, the patients are told to call their physician. When a problem is detected, the physician is notified and the Health Center faxes the comment sheets to his or her office.

"We are in the process of expanding our program and will be calling more people," says Emery. Next, women who have to return for additional views following a mammogram will be called to ensure that they make their appointments and to answer any questions they may have.

"In health care, I think follow-up calls are beneficial in all areas." People often don't understand the information they are given or they don't have enough time with their physician to have all their questions answered, she explains.

[For more information about follow-up calls after discharge, contact:

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Quick classes in CPR ensure safer discharge

Classes help caregivers, kids with special needs

Cardiopulmonary resuscitation (CPR) is a good skill for every parent to learn, says **Jennifer Bay**, RN, BSN, the CPR coordinator for Children's Healthcare of Atlanta. If adults who spend a lot of time with children know CPR, they are less likely to panic when an accident occurs and will know what to do until the emergency medical service team (EMS) arrives.

For some parents, however, learning CPR is imperative for the welfare of their child. That's why CPR is offered on Monday, Wednesday, and Friday to parents with children admitted to either hospital within the Children's Healthcare system. Most attend because the physician has ordered CPR for the main caregiver before the child is discharged. Others hear about the class when it is announced or a nurse tells them, and they simply walk in.

Those parents sent by physicians usually have children with heart defects, multiple health problems, or babies with apnea who will be on an apnea monitor at home. Should the child stop breathing, these parents need to know the steps for CPR.

It is not a class offered to the community. Children's has community CPR classes throughout the year, says Bay. At the community classes, parents are certified following the instruction, and the certification process takes time.

The inpatient class only lasts an hour and is designed to teach parents in a short period of time what they need to do in an emergency. "The parents walk out of the class knowing the skills to keep their child alive until EMS arrives. An hour is long enough for parents to get the instruction they need, and they aren't away from their child's bedside for too long," she says.

The CPR instructors are contract employees, and they show up for the classes at the scheduled time whether a physician has ordered CPR instruction for a caregiver. If caregivers show up for the class, they teach; and if not, they go home, says Bay. "In this way, the classes are on a set basis and the physicians and staff know when they are held. If a caregiver needs to learn CPR on a day it is not offered, staff do the teaching," she says.

The inpatient CPR classes are open to any family member whether they are the main caregiver or not. Grandparents or a teen-age sibling who might baby-sit often will attend. Classes are limited to eight people so each participant has hands-on instruction.

Getting the information across

The class is taught by verbal instruction and demonstration on manikins with parents demonstrating the observed skill back to the instructor. "Seeing and doing is the best way to learn," says Bay.

Instructors teach everyone child CPR, which is for children ages 1 to 8. If someone in the class has a baby and needs to learn infant CPR, which is for children younger than 1, he or she receives individual instruction after the class.

The basic difference in CPR for various age groups is in the chest compressions, whether fingers are used or the heel of the hand, the placement of the fingers or hand, and the depth of the compressions.

With infants, the third and fourth fingers are positioned in the center of the baby's chest half an inch below the nipples and pressed down ½ to 1 inch. One breath is followed by five of these gentle chest compressions.

With children, the heel of one hand is used for chest compressions with the person administering CPR pressing the sternum down 1 to 1½ inches. As with infants, one full breath is followed by five chest compressions.

Parents are encouraged to attend the community outreach CPR class for more in-depth instruction after their child is discharged from the hospital. Often they will return to the inpatient class more than once to learn the skill better if their child is in the hospital for any length of time. Parents receive pocket cards and teaching sheets that list the steps for CPR, and they are instructed to carry the card with them and post the sheets throughout their house. ■

JCAHO proposes standard on overcrowding in the ED

The Joint Commission on Accreditation of Healthcare Organizations has released a proposed leadership standard on emergency department (ED) overcrowding.

The proposed standard calls on hospital leaders to develop and implement plans to identify and mitigate situations that result in ED crowding. The standard looks, for example, at whether hospital leaders incorporate ED crowding into performance improvement activities, coordinate with community resources such as home health agencies and long-term care facilities to expedite discharges from the ED, and use performance measures to monitor the capacity of support services and treatment areas that receive ED patients.

If approved, the standard would be implemented in January 2004. To see the draft standard, go to: www.jcaho.org. ■

(Continued from page 102)

care guidelines developed by the ACC and the American Heart Association. The guidelines are based on the best available evidence of what drugs, tests, and lifestyle changes (such as smoking cessation and diet modification) work best for patients, preventing complications and recurrences.

The new results of the three projects conducted between the years 2000 and 2003 compare the care given to 1,892 heart attack patients treated at the 33 hospitals before the studies began, and 2,065 heart attack patients treated while the system was in place. The study measured use of aspirin, beta-blockers, and ACE inhibitors early and late in a patient's care; cholesterol tests and cholesterol-lowering drugs; and counseling on diet and smoking cessation.

"These are all proven therapies that — while not indicated for every single patient — have been shown to reduce the risk of death, additional heart attacks, and other complications in the vast majority of patients who receive them. Even though we know what works, it hasn't been easy to make sure that knowledge benefits every patient," Eagle says. "This study aimed to close the gap between what experts recommend and what patients receive."

The new results combine the data collected in three stages of the GAP project: a pilot study in 10 hospitals in southeast Michigan, a phase II study in five hospitals in the Flint/Saginaw region of Michigan, and a phase III study in 19 more southeast Michigan hospitals, including UMHS. The study hospitals were of all different sizes and types, from small community facilities to major urban and tertiary care medical centers. Both teaching and nonteaching hospitals were included, and patients had various forms of insurance — about 70% were on Medicare.

All hospitals were offered a tool kit of reminders, checklists, stickers, standard orders, reference cards, and educational materials that made it easier for physicians, nurses, and patients to follow the ACC's guidelines. The degree to which the care system was incorporated into each hospital varied. Some improvement was seen even in the hospitals that didn't use the tool kit very often — for instance, an increase of about 7 percentage points was seen in prescriptions for aspirin and beta-blockers that were written before patients left the hospital.

But in hospitals that consistently used the tools, the gains were much greater. Use of aspirin and beta-blockers early in a patient's hospital stay increased 6.6 points and 5.6 points, respectively.

CE *questions*

1. Under the physician-aligned model of case management at INTEGRIS Rural Health in Oklahoma City, the goal is for each case manager to see no more than ___ patients on a daily basis.
   A. 12 to 15
   B. 20 to 25
   C. 25 to 30
   D. 30 to 32
2. Over the past two years, the case management staff at INTEGRIS Rural Health have gone through training for what credential?
   A. Certified Case Manager (CCM)
   B. Continuity of Care Certification, Advanced (A-CCC)
   C. Case Management Administrator, Certified (CMAC)
   D. Certified Professional Utilization Management (CPUM)
3. According to Don Collins, owner of Clarity Report Development in Paradise, CA, the case management department should not be closely involved in the decision-making process when the hospital has new information technology equipment.
   A. true
   B. false
4. The 30-day readmission rate for the first patients to benefit from the "Medication Mission" at St. Joseph Health Center in Warren, OH, went from 12% to ____.
   A. 10%
   B. 8%
   C. 4%
   D. zero

Answer Key: 1. B; 2. D; 3. B; 4. D

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Pre-discharge prescriptions for the same drugs rose 12.4 points and 6.3 points, respectively. There also was a 7.7 percentage point increase in prescriptions for ACE inhibitor drugs given before patients went home. A 9.6 percentage point jump in cholesterol tests also was seen.

The biggest gains were in the area of diet and smoking-cessation counseling, and in prescriptions for cholesterol-lowering drugs, which rose by 14.3 points. A 34.8 point jump in the proportion of patients who got advice about stopping smoking and a 21.6 point rise in the percentage who saw a dietitian or nutritionist before they went home show how far hospitals have to go in helping patients understand the lifestyle changes that can help their health.

Eagle notes that none of the therapies was used in 100% of patients — the highest percentage achieved was 94%, for pre-discharge aspirin. But not every patient needs every therapy — for instance, nonsmokers don't need advice on stopping smoking, and patients who already are taking blood-thinning drugs generally should not take aspirin, too.

He emphasizes that the ACC guidelines, and the GAP tool kit that incorporates them, aren't a cookbook for cookie-cutter medicine. "These tools, and the processes that lead to their consistent use, simply function as a reminder system. These are key things that need to be thought about and either ordered or ruled out because of a contraindication. We want to help doctors, nurses, and patients consider the priorities and follow them if indicated."

The ACC developed its heart attack guidelines in collaboration with the American Heart Association to address such disparities. The guidelines give recommendations for treatments, tests, and advice patients should get based on age, sex, medical history, and the severity of their conditions.

These are the tools in the GAP initiative tool kit (available on-line at www.acc.org):

- standing orders for medication and tests;
- pocket cards of medications and guidelines for medical staff;
- a clinical pathway that guides nurses through their daily activity;
- a special patient information form;
- stickers for the patient's chart;
- chart that shows hospital's overall performance;
- a discharge checklist for doctors or selected nurses to review with patients;
- patient education materials — written and verbal instruction on therapy and lifestyle.

These were the guideline-recommended therapies, tests, and counseling measured in the study:

- aspirin in the emergency department and before discharge to prevent clotting;
- beta-blockers to reduce heart rhythm problems;
- angiotensin-converting enzyme inhibitors, to aid the heart's recovery;
- blood cholesterol tests and, in appropriate patients, drugs to lower cholesterol;
- smoking-cessation counseling (smoking doubles the long-term risk of heart attack);
- diet counseling, with emphasis on low-fat diets. ■

CE objectives

After reading each issue of *Hospital Case Management*, the nurse will be able to:

• identify particular clinical, administrative, or regulatory issues related to the profession of case management;

• describe how those issues affect patients, case managers, hospitals, or the health care industry in general;

• cite practical solutions to problems associated with the issue, based on independent recommendations from clinicians at individual institutions or other authorities. ■