Healthcare Benchmarks and Quality Improvement

The Newsletter of Best Practices

THOMSON AMERICAN HEALTH CONSULTANTS

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End-of-life care a balance between customization, standard processes

Tools that identify care goals are key part of a successful approach

Quality professionals and the organizations that evaluate them place a great emphasis today on standards — core measures, evidence-based practices, and consistent processes. A dynamic seemingly at odds with this emphasis is the fact that patients are individuals, with unique needs and desires about their care.

Nowhere is this individuality more of an issue than in end-of-life care, as evidenced in a recent study published in the *Journal of the American Geriatrics Society*[1], which examined different ethnic attitudes. For example, the study found, many Arab Americans would prefer not to go to a nursing home as they near the end of their lives, while many African Americans are comfortable with nursing homes and hospitals. Many Hispanic people are strongly concerned about dying with dignity. And many white people don't want their families to take care of them, but they — like members of other racial and ethnic groups — want their families nearby as they live out their last days.

"One of the most important findings in our study is that there are so many different points of view, it is important for health care providers to treat everyone as an individual," says lead author **Sonia A. Duffy**, PhD, RN, research investigator with the Center for Practice Management and Outcomes Research at the Veterans Affairs Ann Arbor (MI) Healthcare System, and with the departments of Otolaryngology and Psychiatry at the University

Key Points

- Regularly revisit patient goals as the patient's condition changes.
- Total elimination of pain is a legitimate quality issue.
- More palliative care is needed in the hospital setting, experts say.

of Michigan Medical School, also in Ann Arbor.

Individual patient concerns can affect their attitude on anything from pain management to theology, adds **Annette Carron**, DO, director of palliative care services at William Beaumont Hospital in Royal Oak, MI. "Certainly there are all kinds of fears about addiction and side effects from pain medication," she notes. "Some families have barriers and are even uncomfortable with morphine."

"As far as standardization, truthfully, we've tried to look at standardizing EOL [end of life] care, and it's not as easy to do because everyone is unique," says **Dawn Snyder**, RN, MSN, clinical nurse specialist in palliative medicine at Geisinger Medical Center in Danville, PA. "Each individual at the end of life may have different symptoms, and everyone has a unique way of dying."

Still, observers agree, there are some common approaches — and even tools — that can be promulgated in an effort to provide the highest quality of care for EOL patients. These include patient survey tools, pain management, and a common approach to all patients — honesty.

Towards a common tool

"One of the reasons we did focus groups [as part of our study] was for tool development," notes Duffy. "We came up with 40 concepts from the literature, asked about them, and looked at new concepts that emerged from the study."

What were some of the concepts? "What I try to learn in any given moment is what the patients are wanting in terms of heroic measures," she says. "That can be very specific — many may not want a respirator, but they *do* want antibiotics."

The goal of the tool is to home in on key attitudes — a "culturally transparent" survey, says Duffy. So, for example, a typical question might be: "If you had only six months to live, would you be in favor of having life-extending care or going home and being with your family?"

"We will always ask, 'In your situation, what goals are important, and how can we help you accomplish them?'" Carron shares. "Some patients want to spend as much time as possible at home with their family and have hospice come in; others want to spend Christmas with them, and we can try and have Christmas early, if need be."

Staff ask patients to write down six short- and long-term goals. "We ask them what's important," she explains. "For example, who do you want to be with? Yesterday, an elderly woman said she really enjoyed crossword puzzles, but that her vision was now blurred. Something as simple as an ophthalmologist consult and some eye drops solved the problem." Carron adds that the goals are re-visited periodically, as the patient's condition changes.

Duffy agrees it's important to revisit patient goals. "In EOL care, things are very dynamic, always changing," she notes. "A lot of times people get better when they are not expected to, or perhaps a cancer has spread to the brain. Then, it's time to talk again."

It's a big issue if the patient's goals of care are not defined, Carron emphasizes. "They may

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unfortunately go through testing, CPR, intubation processes they never wanted, and that's significant from a safety issue as well," she says. "We try to make it easier to process, so at least if they have an advance directive we get it on the chart and the physician looks at it. That then translates into an order."

No need for pain

One area of EOL care in which there is clear standardization is pain management, says Snyder. "There is standardization as far as assessing pain on a regular basis, treating and re-evaluating it; these are JCAHO requirements," she notes.

Beyond that, Snyder ventures into an area that is gaining ever-greater credence in palliative care circles. "There's really no reason for patients to have pain," she asserts. "If people are fearful [of opiates], it indicates a lack of knowledge. "Residents and attendings are fearful, and they don't need to be. Once you have the knowledge and experience, you see that opiates are safer to use than Tylenol."

"Under-treatment of pain is a real quality issue," Carron asserts. "Most of the time it is a myth that patients will have shortness of breath. Absolutely, patients can be kept pain free; a lot more education is needed in terms of pain management, as well as in equi-analgesic dosing, like converting Tylenol or Vicodin to morphine." (Guidelines, she says, are available from the American Academy of Hospice and Palliative Medicine at www.aahpm.org/sites/.)

"The key is giving the right dose for the first dose," notes **Judith A. Dobson**, MSN, CHPN, a hospice/palliative care consultant in Danville, PA. "The way you start out on opioids is, you just don't pick a number based on how sick the patient is or what they tell you their pain number is. If they've never had morphine before, start with a very small dose; in IV, that's two mg, orally, five to 10. Then, you sit with the patient and in 15 to 20 minutes, you see how much their pain is relieved by that dose. Then, perhaps, you add another one. If you picked a number out of the air and gave 90 mg the first shot, yes, it will depress respiration. If you give it the right way, the body becomes very used to it quickly."

One of the biggest challenges, she continues, is the fear that whatever patients are given could cause addiction. Patients have this fear, says Dobson, and "doctors and nurses do not have the right education and still believe if they give OxyContin or morphine the patients will become addicted. It's just not true; there are genetic, psychological, socio-economic, and environmental reasons people become addicted. Yet, most people fear prescribing for those reasons, and patients fear taking those medications."

One way to overcome these fears is with a key approach recommended by Dobson and others: honesty. "The best thing is to let people prepare," she says. "For example, when a person gets lung cancer, it's generally not curable. All the treatment that's given extends life, gives more quality of life, and gives time. Still, the first time you see a doctor and he has bad news for you, whatever it is, it's important the patient is given the truth in that they are told they have a life-limiting disease."

In other words, she suggests, tell the patient you are pulling out all the stops, but you want them to know the condition will take their life sooner than they may have thought. "People don't give up hope when they hear honesty," she insists. "They can look long-range and decide, for example, how to prepare their kids. They may, for instance, want to make a video for every coming birthday, or plan for college."

Other changes needed

Other changes can be made to improve the quality of end-of-life care, says Dobson, For example, she offers, "We need to get more palliative care units into hospitals, because that's where people die the worst deaths." One of the major obstacles, she notes, is financial. "We need legislation that gives us an award like an ICD-9 code for quality end-of-life care," she suggests. "We do not get rewarded for a good death."

Still, there are significant efforts being made. "We started three-and-one-half years ago with an inpatient consulting service," says Carron. "Now, we are in the process of hiring a full-time nurse practitioner and some dedicated chaplains and social workers."

The inpatient consulting service involves a team of palliative care physicians. "You have to ask for a consult from them," Carron notes. "But even now we address physical, spiritual, and emotional needs, advance care planning, and any family or financial and placement issues. We have full pastoral care, so we bring in people

with similar backgrounds, or social workers who know the patient's culture. We also have interpreters available."

Qualified individuals are critical, Snyder notes. "If you are working with a palliative care department, find someone certified in the field — there are board certifications now — to ensure quality of care," she recommends. "They will have more state-of-the-art knowledge."

From a hospital quality standpoint, adds Carron, palliative medicine is best served in the whole service line of care – outpatient, inpatient, nursing, home care settings. "You need good communication of goals of care across the setting," she says. "The whole continuum of care needs to be addressed."

To help ensure patients' wishes are fulfilled, "Get the advanced directives on the first [computer] screen — right with their insurance number and emergency phone number," Dobson recommends. "You also need more than one surrogate. Have a form that asks, if your surrogate can't do the job, or is out of the country, please name a 'number two.' Also, indicate where the patient wants to die."

Begin preparations early

Finally says Dobson, begin your preparations early in the care process. "Referrals to hospice are coming late because people did not start to have discussions with patients early enough," she says. "You're supposed to have six months' [lead time], and we're getting about 27 days."

How can this problem be addressed? "Docs need to learn how to say the tough things with kindness and compassion and say them up front," Dobson says.

She recalls with appreciation the physician who treated her mother. "He said to her: 'Mrs. Brennan, you have a life-limiting disease because of this [breast] cancer, but there are many things we can do to help you. You can have chemotherapy, and surgery; we will stay with you, take care of the symptoms you have, and when I realize there is not any more we can offer you and you are getting close to the end of your life, we call that comfort care only. I will tell you when that is.' Five years later, he says, 'Do you remember when I told you that?' Even though she had dementia, she said she remembered, and he said, 'Now is that time.' And she said, 'I understand.'"

This type of advance preparation eases transfers to hospice. How can you tell when "that time" has come? "There are clinical guidelines you can use that indicate when someone has about six months to live,"[2] says Dobson. "When that time comes, it's only fair to the patient and their family that they should know."

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Computer system helps nurses in care delivery

System first implemented with residents

A computerized sign-out system at Jacobi Medical Center in Bronx, NY, has improved physician-nurse communication and positively affected the ability of nurses to care for their patients, according to staff surveys following the implementation of the system.[1]

Communication problems among health care workers are a common, preventable source of hospital-related morbidity and mortality. In fact,

poor communication among health care professionals is the root cause of nearly seven of 10 sentinel events, according to the Joint Commission on Accreditation of Healthcare Organizations.

The system at Jacobi Medical Center, first launched with internal medicine residents in February 2003, was incorporated into the facility's electronic medical record and physician order entry system. This new system was specifically developed to improve the quality of information transfer between cross-covering residents. In August 2004, after acceptance by the residents, a pilot study was initiated to explore the potential benefits of offering inpatient nurses access to this sign-out data, and the system was made available to inpatient nursing staff. This was also, in part, an effort to respond to complaints by nurses about insufficient communication between nurses and house officers.

A sign-out module was incorporated into the computerized health record; it was designed to screen the electronic record and automatically populate fields with patient demographic and admit-discharge-transfer data; medical team information; allergies; active medication lists; and resuscitation status. Internal medicine house officers were required to use the program's printout during face-to-face transfer of patient care responsibility at the change of every morning and evening shift, and the program was available at every computer in the hospital.

In the pilot program, nursing staff members were provided electronic access to the residents' sign-out information. Nurses received printouts of the computerized signouts at the start of each shift and were asked to use the sign-out program as a basis for their care plans and nursing change-of-shift "report."

A big improvement

Prior to the implementation of the new system, information transfer between house staff used to take place using notes written on pieces of paper during shift changes, recalls **Robert Sidlow**, MD, associate professor, department of medicine, and lead author of the paper. "It was very disorganized, yet this is an incredibly vulnerable aspect of hospital care of patients," he notes. "Cross-coverage is a time fraught with potential danger for patients."

Since Jacobi already had an enterprisewide electronic record, he reasoned, "why not leverage that and integrate it into the actual health record of the patient?" Now, is it an actual submenu of the system, he explains.

Training, says Sidlow, was straightforward. "We met with house staff and said, 'This is how you're going to do it from now on,' and it took off like wildfire; within a month-and-a-half all the residents were using it."

The residents, he says, viewed the new system "as an incredible boon. The system automatically drops in your patient list from the order entry system —- allergies, active meds, where the patient is located, when they were admitted, as well as all demographic information that previously had to be entered manually." The fields that need to be edited are the traditional information fields that are handed over — active issues, potential problems the patient might experience overnight, what the clinical issues are that are facing this patient, Sidlow explains.

Key Points

- Sign-out module is incorporated into hospital's electronic medical record.
- Fields populated with patient demographic and admit-discharge-transfer data; medical team information; allergies; active medication lists; and resuscitation status.
- Boost in nursing morale an unexpected benefit of the new system.

Moving into nursing

Making the system available to nurses made sense, says Sidlow, because "communication between doctors and nurses is also incredibly vulnerable. Nurses change shifts every 12 hours at 7:00, and now they have the physician sign-outs, so they can align the care plans in a much more streamlined, standardized fashion. Before, they would either have to decide things intuitively or go through the chart; now, they can sit there and have it all on one piece of paper."

The nurses agreed. The 19 (of 20) nurses who completed the survey said that using the resident sign-out program positively affected their ability to care for their patients. In addition, the intervention improved nurses' understanding of the patients' reason for admission, helped to improve communication between physicians and nurses, and raised nursing morale.

One of the more surprising benefits on the

new system, says Sidlow, was this boost in nursing morale. "These days, you are really challenged to create a good work environment for nurses who are so stressed out — how can you make their lives and time a bit easier and keep them on staff?" he says. "This gave them a feeling of control over their patients that they did not have before. Still, it's surprising that such a simple intervention boosted their morale. They just felt they had a better handle on their patients, and we were thrilled."

This initiative, which began as a pilot project on one floor in internal medicine, has now spread throughout the facility. "There are novel enhancements that health care organizations should consider when implementing the rollout of an electronic medical record," says Sidlow. "There are ways to think outside the box and stretch and use the information flow that's going on in novel ways that had not been thought of before — and this is one of them."

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Program helps to boost co-pay collections

Program includes courtesy discounts

An innovative program at Children's Hospital of Alabama (Birmingham) has led to an increase in co-pay collections, from about $300,000 to more than $2 million. The initiative, which includes a combination of staff incentives, a "courtesy discharge" program, and a patient satisfaction survey, also has led to an A/R (accounts receivable) average of 33.7 days for 2005.

Key Points

- Co-pays, when required, are collected at bedside during a visit by a facilitator.
- Patient phone surveys address staff care and compassion, responsiveness, communication, friendliness, and courtesy.
- Staff who meet pre-stated goals can increase compensation by as much as 6%.

The initiative was spearheaded by **Linda Benson**, division director of patient access, who joined the facility about five years ago. "I worked with the director of human resources; she is a strong advocate of incentive programs for selected areas," notes Benson. "Our CFO at the time really didn't like idea; I had to really sell him and convince him we could make it work."

The program Benson and her staff put together included the following:

• **"Courtesy discount" program:** Those patients owing a co-pay are called and visited by a facilitator, who collects the co-pay at the bedside. This allows the family to not have to stop at the cashier's desk at the time of discharge.

• **Patient satisfaction survey:** Conducted via telephone by New South Research, it assesses how satisfied patients are with care and compassion of the registration staff; staff responsiveness to requests; communication during the registration process; friendliness and courtesy of registration staff.

• **Staff incentive program:** The incentives range between 3% and 6%.

Getting staff on board

Benson recognized winning staff support for any new program would be a challenge. "Taking people who already had an overwhelming day and adding this was a somewhat uncomfortable task," she concedes. That's where the incentive came in. "Knowing they had something to benefit from really got them going," says Benson.

Incentives are available to all staffers in the Access Center, which includes: scheduling, preregistration, outpatient and emergency department registration, inpatient administration, bed control, clinics, financial counselors, and the central cashiers. They must meet these four minimum requirements to receive a quarterly incentive check:

• A/R days must be less than 40.
• Average wait time before registration process begins must be less than 10 minutes.
• At least $425,000 has been collected.
• A minimum of 80% of respondents say they were "very satisfied" with staff performance in the aforementioned areas.

Some of these minimums represent a "moving target"; for example, the original minimum for collections was $375,000, Benson recalls. "When we established that amount, the staff were fully aware it would be adjusted as we saw that certain targets were too easily achieved," she explains.

Still, she says, these are "very objective measures" the staff are being asked to meet; and she was careful to "spread the wealth" among all Access Center staff.

"This was my biggest struggle," she says. "How could we do this in a fair way, since we were using two different measures — money and customer service? It seemed to me it would not be fair to reward those just in a position where they could actually collect money, so we flat out said the incentive would apply to everyone in the access center."

Why did she include the satisfaction component in the first place? "It's just as important to provide good costumer service as it is to collect money," she asserts.

As for collections, while goals are either met or not met collectively, the supervisors also track collections on an individual level — how much each staff person is collecting. "That specific number is used on their yearly performance evaluation," Benson explains.

Education was key

Ensuring the program's success took much more than just telling staff they would be rewarded for good performance. At the outset, it had to be communicated to all 120 people in the department, which included different facilities such as the ED, clinics, and so forth. "We have a global e-mail address for all the staff," says Benson, explaining how she spread the word. "We have continued with ongoing communications when we feel the staff need some cheerleading or extra motivation."

A good deal of training was involved, she continues. "We had to teach them how to speak to patients," she notes. "For example, we taught them that instead of asking, 'Would you like to pay your co-pay?' the staff should say, 'Your co-pay is $50; will you be paying with cash, check, or credit card?'" (In sales jargon, this is called the "assumptive close.")

The bottom line, says Benson, was that it was important to make staff understand how critical is it to the health system to try to get the money upfront. The four supervisors, she adds, were "very supportive and instrumental" in helping to roll out the plan.

Reasons for success

Perhaps the most detailed element of the plan was the courtesy discharge. "We have financial counselors who review all inpatient and observation patients; they verify insurance benefits. In the process of doing that, they obtain any deductible or co-insurance information," Benson explains.

"We were not electronic at this point with transfer of information to the cashiers who do the collecting; we used a patient folder," she notes. "Written on the outside was, 'patient owes x dollars.'"

This was done the day after admission and given to the main cashiers, who separated them out based on payer type. "For example, Medicaid patients don't pay, so they are automatically a courtesy discharge," Benson says.

In the beginning, staff used to go to the floor and stamp "courtesy discharge" on the chart, but this proved too time-consuming. "I convinced nursing it needed to be electronic," says Benson. "Now, it's as simple as looking at one field; you put it on the discharge screen, if it comes up 'yes,' the staff know the patient is free to go. If the courtesy discharge is valued 'no,' they need to be taken to the main cashier's office." In either event, she emphasizes, "Our goal is to address this quickly."

Why has the program been so successful? "Obviously, a big part was the incentive, the personal reward for employees," says Benson. "Then, you had a good management team that all strongly believed in this process. The staff have just embraced it. And when we have new hires, it's now very much part of their job."

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Study: Quality improving at a modest pace

Greatest gain seen in patient safety measures

Key Points

- Study shows 10.2% improvements in patient safety core measures.
- Worst performer among 44 core measures was ED patients who left without being treated.
- Hospital procedures generally performed better than prevention in chronic disease states.

The quality of U.S. health care continued to improve in 2005, according to "The 2005 National Healthcare Quality Report" from the U.S. Department of Health & Human Services' Agency for Healthcare Research and Quality (AHRQ).

Overall quality of care for all Americans improved at a rate of 2.8%, the same increase shown in last year's report.

"That's not the difference just for this year but the average rate of change over the last few years," explains **Dwight McNeill**, PhD, lead author of the report. "That's across all 44 core measures." However, the report notes there has been much more rapid improvement in some measures, especially where there have been focused efforts to improve care.

Wide range seen

For example, the report finds a 10.2% annual improvement in the five core measures of patient safety. These are areas where coordinated national efforts are underway to improve the delivery of specific "best practice" treatments to improve patient safety and reduce medical errors. Improvements were greatest in quality measures for diabetes, heart disease, respiratory conditions, nursing home care, and maternal and child health care.

When specific measures are looked at, there is a wide range of performance, notes McNeill. "The numbers can go as low as a 10% deterioration," he observes. Low-performing measures include the suicide rate and the percentage of people who go to the ED and leave before they are treated. The latter, he says, is our worst-performing measure; it has been getting worse for a number of years."

The mental health measures were sobering, too, he continues. "We have a new measure on substance abuse and found that only 15% of people who need substance abuse care get it, and of those who get it, only 50% complete it," McNeill observes. "There continues to be a need for great improvement."

In the patient safety cluster, measures

Health care disparities narrow for many

The Agency for Healthcare Research and Quality (AHRQ) has just released its "National Healthcare Disparities Report," which indicates that health care disparities are narrowing overall for many minority Americans.

But for Hispanics, the report says, disparities have widened in both quality of care and access to care.

Key findings in the "disparities" report include the following:

• Rates of late-stage breast cancer decreased more rapidly from 1992 to 2002 among black women (169 to 161 per 100,000 women) than among white women (152 to 151 per 100,000), resulting in a narrowing disparity.

• Treatment of heart failure improved more rapidly from 2002 to 2003 among American Indian Medicare beneficiaries (69% to 74%) than among white Medicare beneficiaries (73% to 74%), resulting in an elimination of this disparity.

• The quality of diabetes care declined from 2000 to 2002 among Hispanic adults (44% to 38%), while it improved among white adults (50% to 55%).

• The quality of patient-provider communication (as reported by patients themselves) declined from 2000 to 2002 among Hispanic adults (87% to 84%), while it improved among white adults (93% to 94%).

• Access to a usual source of care increased slightly from 1999 to 2003 for Hispanics (77% to 78%) and whites (88% to 90%), with Hispanics less likely to have access to a usual source of care. ■

improved by as much as 40%. "But this is a low-incidence event, so it's not too difficult to get a big bump [in a single year]," McNeill notes. "Still, our message is that since the IOM report, there's been a lot of activity from AHRQ and other organizations to emphasize patient safety."

The hospital measures for QIO (Quality Improvement Organizations) were the second-highest group overall, at 9.4%. "This included acute myocardial infarction, heart failure, and respiratory care," says McNeill. "This is another area where Medicare and the QIOs have emphasized public reporting, and [performance has] improved. It's another indication that if you put the spotlight on performance, it does help improvement."

While all hospital procedures have improved, says McNeill, the prevention of chronic diseases has not. This includes screening for diabetes, hypertension, cholesterol, and mammograms. "So, there's something of a dichotomy — where there's improvement in procedural in-hospital measures, but for the same diseases the prevention measures have not fared so well," McNeill says.

For example, he notes, there has been a tremendous reduction in heart disease measures; the mortality rate for myocardial infarctions, for example, has dropped 20% in 10 years. "But when you decompose it, the real impact on cardiac deaths is in hospital procedures — and less on prevention," McNeill says.

McNeill considers the measures in the AHRQ study to be good benchmarks. "What we are trying to do is say whether we are getting better or worse, and to what degree," he explains. "It helps people put a spotlight on problems, so they can take action to make improvements."

[The report is available by calling 1-800-358-9295, at www.qualitytools.ahrq.gov, or by sending an e-mail to ahrqpubs@ahrq.gov. You can reach Dwight McNeill at (301) 427-1734.] ■

Key Points

- By the end of 2006, about 10% of all hospitals will have completed CPOE implementation.
- Few statistically significant organizational factors were correlated to the variability in CPOE implementation.
- P4P will help implementation rate, but high cost of systems will remain a barrier.

Usage of CPOE steadily increasing, Leapfrog says

But top exec is disappointed with rate of adoption

While hospitals seem to be adopting computerized physician order entry systems (CPOE) at a steady pace, it is not fast enough to satisfy one of the leading proponents of the technology — the Washington, DC-based Leapfrog Group. "In general, we're disappointed so few hospitals have fully implemented [CPOE], though the number is greater now than when we started," says **Suzanne Delbanco**, PhD, executive director.

Actually, the numbers are more impressive than indicated in a recent article in the *Journal of Healthcare Information Management*. Quoting the Leapfrog Group's 2003 survey results, the authors noted that results show that only 3.7% of the 842 participating hospitals located in the Leapfrog Group's targeted regions had fully implemented a CPOE system consistent with the Leapfrog standard, although 92% reported at least planned or partial implementation of a CPOE system.[1]

The authors noted that few statistically significant organizational factors were correlated to the variability in CPOE implementation, including profitability, bed size, or penetration of health care maintenance organizations.

They also suggested that ongoing changes to financial incentives in health care, such as pay-for-performance, will continue to promote adoption of these technologies that support patient safety.

"I think what we're seeing is that hospitals who are in the process of implementing CPOE find it takes them much longer to participate," offers Delbanco. "Because of the rigorous questions we ask them, we've determined that when they think it will take one year it really is two, three, or four years. However, experts will tell you that's the nature of technology."

Recent numbers higher

Still, she continues, the numbers are heading in the right direction. According to Leapfrog's latest numbers from the 28 regions it focuses on, 6.2% of the responding hospitals say they have fully implemented CPOE. "In addition, another

3.6% say they will have it in place by 2006," adds Delbanco, indicating that nearly 10% of all hospitals may have systems fully operational by the end of the year. "If you look at the regional rollout, the urban hospitals have a total of 7.2% fully implementing, and 3.8% are saying they will be fully implemented by the end of 2006," she adds. "Of the rural hospitals in the 28 regions, 1.4% have fully implemented, and 2.1% say they will be there in 2006."

Priorities make a difference

In analyzing the results, Delbanco says she and her colleagues have found a few surprises. "One thing that did surprise us is, based on the 2004 data, our analysis showed there was not really any difference among the participants [in terms of implementation] related to teaching status, non-profit or for-profit status, or size," she observes. "Those are things we thought would be somewhat predictive."

This gives credence, she notes, to the anecdotal information she has been receiving that it takes a leader for implementation to happen. "Every hospital has a different story; it's really a matter of priorities," she asserts.

What about the authors' suggestion that P4P would affect the rate of CPOE adoption? "Pay-for-performance will help, but it is of course very expensive, and no pay-for-performance incentives will ever entirely cover the cost of implementation," she says.

Defending the technology

Delbanco also was asked by HBQI to respond to the recent article in *Pediatrics* that claimed a new CPOE system led to an increased mortality rate.

(See "Study: Implementation of CPOE can raise mortality," *HBQI*, February 2006.)

"This study was not really just about CPOE, but about a variety of changes that occurred in the hospital at the same time and led to increased mortality," she asserts.

"The way the study was designed, the results they attributed to CPOE really can't be attributed to CPOE. At the same time [they implemented the system] they changed where the meds were located, so you couldn't access them in a timely manner; they tried to implement the system in six days; and there was not enough broadband access, so people couldn't be on line at the same time. All of that slowed things down, but not all of it was attributable to CPOE. This was a case study of how *not* to do it."

Critics notwithstanding, Delbanco is convinced the current trend of CPOE adoption will continue. "Different studies coming out on a regular basis now suggest the numbers are increasing," she concludes.

Reference

1. Hillman JM, Given RS. Hospital implementation of computerized provider order entry systems: results from the 2003 Leapfrog Group quality and safety survey. J *Healthc Inf Manag*. Fall 2005;19:55-65.

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CDC issues updated TB prevention guidelines

The Atlanta, GA-based Centers for Disease Control and Prevention has issued updated guidelines for preventing the transmission of tuberculosis in health care settings.

The report, "Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis in Health-Care Settings," updates recommendations issued in 1994 to reflect shifts in the epidemiology of the disease, advances in scientific understanding, and changes in health care practice.

The guidelines note that TB transmission in health care settings continues to decrease due to implementation of infection-control measures and reductions in community rates of TB.

The report replaces the 1994 guidelines for Mycobacterium tuberculosis (TB) prevention and subsequent TB updates that focused on specific health care facilities. Prepared in consultation with experts in TB, infection control, environmental control, respiratory protection, and occupational health, the new guidelines encompass more health care settings having the potential for TB transmission than in the past guidelines.

Health care settings

"The 1994 CDC guidelines were aimed primarily at hospital-based facilities, which frequently refer to a physical building or set of buildings. The 2005 guidelines have been expanded to address a broader concept. 'Setting' has been chosen instead of 'facility' to expand the scope of potential places for which these guidelines apply," the introduction to the report explains.

The new guidelines apply to the following health care settings:

- **Inpatient settings:** patient rooms, emergency departments, intensive care units, surgical suites, laboratories, laboratory procedure areas, bronchoscopy suites, sputum induction or inhalation therapy rooms, autopsy suites, and embalming rooms.
- **Outpatient settings:** TB treatment facilities, medical offices, ambulatory care settings, dialysis units, and dental care settings.
- **Nontraditional facility-based settings:** emergency medical service, medical settings in correctional facilities, home-based health care and outreach settings, long-term care settings (e.g., hospice-skilled nursing facilities), and homeless shelters.

Other settings in which suspected and confirmed TB patients might be encountered include cafeterias, general stores, kitchens, laundry areas, maintenance shops, pharmacies, and law enforcement settings.

Additional changes differentiating the new guidelines from previous reports are:

- Using more aspects of infection control in assessing risk levels for a health care setting.
- Replacing purified protein derivative tests with the term "tuberculin skin tests."
- Recognizing blood tests as alternatives to TSTs in TB screening programs for health care workers.
- Changing the criteria for and decreasing the frequency of TB screenings for health care workers in certain settings.
- Clearly defining the criteria for serial testing for TB infection of health care workers.
- Introducing the terms airborne infection precautions and airborne infection isolation room.
- Making recommendations for annual respirator training, initial respirator fit testing, and periodic respirator fit testing.
- Summarizing the evidence for respirator fit testing.
- Including information on ultraviolet germicidal irradiation and expanding on room-air recirculation units.
- Adding information on multi-drug-resistant TB and HIV infection. ■

AHRQ: Spending on trauma surpasses heart disease

U.S. spending to treat trauma-related disorders nearly doubled between 1996 and 2003 to surpass heart disease as the leading medical expenditure by condition, the Agency for Healthcare Research and Quality reported.

Over the same period, spending for heart conditions increased nearly 17% to surpass cancer as the second leading medical expenditure by condition.

The number of Americans with medical expenditures for heart conditions and cancer increased over the period, while the number of Americans with medical expenditures for trauma was roughly unchanged, AHRQ said.

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- ■ 'Do it write' program targets elimination of unsafe medication abbreviations
- ■ NIH teams modeling infectious disease outbreaks, including pandemics
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The data are from AHRQ's Medical Expenditure Panel Survey. ■

JCAHO recommends reconciling med lists

The Joint Commission on Accreditation of Healthcare Organizations has encouraged health care organizations to reconcile a patient's medications as the patient transitions from one care setting or practitioner to another to help prevent medication errors. According to the JCAHO alert, the medication reconciliation process involves listing the patient's current medications and medications to be prescribed, comparing the two lists, making clinical decisions based on the comparison, and communicating the new list to appropriate caregivers and the patient. ■

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