

Healthcare Benchmarks and Quality Improvement

The
Newsletter
of Best
Practices



IN THIS ISSUE

- Safety in numbers: Benchmarking initiative helps hospitals improve care for pediatric asthmatics cover
- CPOE software helps improve patient satisfaction upon discharge 113
- Multidisciplinary meetings lower LOS, excess days 114
- For easy-to-read handouts, take layout into account 116
- Lack of compliance may mean patients misunderstand . . 118
- Joint Commission deadline on MDRO goal is Jan. 1 119

OCTOBER 2009

VOL. 16, NO. 10 • (pages 109-120)

Benchmarking children's hospitals improves asthma home management

Collaborative sought to improve compliance with TJC requirements

Children's hospitals participating in a benchmarking initiative have achieved significant improvement in compliance with home care requirements set forth by The Joint Commission. The Children's Asthma Care (CAC) performance measure set, implemented as a core measure effective with July 1, 2008 discharges, includes three measures:

- CAC — 1: use of relievers for inpatient asthma;
- CAC — 2: use of systemic corticosteroids for inpatient asthma;
- CAC — 3: home management plan of care given to

patient/caregiver.

"We first started addressing [CAC] back in April of 2007 [when The Joint Commission first introduced them]," recalls **Tina Sacco**, RN, BS, clinical quality specialist, Connecticut Children's Medical Center in Hartford. "It was pretty clear from the start that we did fine with the first two measures; but the last measure, related to home management care, needed to improve. The first results were pretty dismal."

In fact, she reports, the baseline figure for her facility's compliance was 20%; today, it's at 90%. That baseline figure was not unusual for the participating hospitals, recalls **Sharon Lau**, who has been heading the BENCHmarking Effort for Networking Children's Hospitals (BENCH) since 1992 for her

Key Points

- Results improve when data are shared openly with hospital quality committee.
- Hospitals share information on what works — and what doesn't.
- The initiative works best when a single individual is given accountability.

**NOW AVAILABLE ON-LINE! Go to www.ahcmedia.com/online.html.
Call (800) 688-2421 for details.**

Los Angeles-based company, MMP. "It was designed to be a collaborative effort of children's hospitals to share data and knowledge so we'd all get better at what we do," she explains. "After the first couple of data submissions [for this initiative], we called a conference and looked at the data; a number of the hospitals were at the bottom — if they had 1% or 2% compliance, it was a lot."

Addressing shortcomings

Since the CAC home management measure represented a Joint Commission requirement, "Our role was to bring those hospitals together

that were part of the BENCH effort, whether they use us as a vendor for health care or not, and share what works and what doesn't work," Lau explains.

And while a number of the hospitals ranked low in terms of compliance, "There were some at the top," says Lau. For example, SSM Cardinal Glennon Children's Medical Center in St. Louis "showed up as being about 80% for the first couple of go-rounds, which was pretty dramatic."

So, during the first conference call, Lau asked them to share with the other facilities just how they did it — how they got buy-in from the organization and how they got the physicians to participate. "What they said was that it was an organizational initiative that they would get to 100% on these measures — period, end of story," Lau shares. "If you have an initiative with expectations that people will be accountable, you generally will have success."

In their first three quarters of addressing the issue, Lau reports, Cardinal Glennon went from 39% compliance to 80%. "It came down to the fact that one person was responsible — she was the accountability person," says Lau. "Whether she did it herself or assigned it to someone else, there was one person in the organization you could go to and ask why things did or did not improve. Also, they reported at the quality improvement council on a monthly basis, so there was 'public' accountability."

So, during the subsequent conference calls, Lau would ask participants where the responsibility resided in their facility. "There are still a couple of organizations where the function is not as central and they're not doing quite as well," she reports. "There's the same correlation with presenting the results in open meetings in the hospital."

On an ongoing basis, Lau collects the performance data from the hospitals and then shows each one where they rank compared to the other participants. "This process gives them access to known hospitals [as opposed, say, to Joint Commission data, which are 'blind'], and allows them to borrow ideas and adapt them for their own purposes," she explains.

Using a task force

At Kosair Children's Hospital in Louisville, KY, a multidisciplinary task force was established in 2007 as the initiative began, recalls

Healthcare Benchmarks and Quality Improvement (ISSN# 1541-1052) is published monthly by AHC Media LLC, 3525 Piedmont Road N.E., Building Six, Suite 400, Atlanta, GA 30305. Telephone: (404) 262-7436. Periodicals Postage Paid at Atlanta, GA 30304 and at additional mailing offices. USPS# 0012-967.

POSTMASTER: Send address changes to *Healthcare Benchmarks and Quality Improvement*, P.O. Box 740059, Atlanta, GA 30374.

Subscriber Information

Customer Service: (800) 688-2421. **Fax:** (800) 284-3291. **E-mail:** customerservice@ahcmedia.com. **Hours of operation:** 8:30-6 Monday-Thursday, 8:30-4:30 Friday, EST.

Subscription rates: U.S.A., one year (12 issues), \$549. Add \$17.95 for shipping & handling. Outside U.S., add \$30 per year, total prepaid in U.S. funds. Discounts are available for group subscriptions, multiple copies, site-licenses or electronic distribution. For pricing information, call Tria Kreutzer at 404-262-5482. Missing issues will be fulfilled by customer service free of charge when contacted within one month of the missing issue date. **Back issues**, when available, are \$92 each. (GST registration number R128870672.)

Photocopying: No part of this newsletter may be reproduced in any form or incorporated into any information retrieval system without the written permission of the copyright owner. For reprint permission, please contact AHC Media LLC. Address: P.O. Box 740056, Atlanta, GA 30374. Telephone: (800) 688-2421. World Wide Web: <http://www.ahcpub.com>.

Opinions expressed are not necessarily those of this publication. Mention of products or services does not constitute endorsement. Clinical, legal, tax, and other comments are offered for general guidance only; professional counsel should be sought for specific situations.

Editor: **Steve Lewis**, (770) 442-9805, (steve@wordmaninc.com).
Senior Vice President/Group Publisher: **Don Johnston**, (404) 262-5439, (don.johnston@ahcmedia.com).
Associate Publisher: **Russ Underwood**, (404) 262-5521, (russ.underwood@ahcmedia.com).
Managing Editor: **Jill Robbins**, (404) 262-5557, (jill.robbins@ahcmedia.com).

Copyright © 2009 by AHC Media LLC. **Healthcare Benchmarks and Quality Improvement** is a trademark of AHC Media LLC. The trademark **Healthcare Benchmarks and Quality Improvement** is used herein under license. All rights reserved.



Editorial Questions

For questions or comments, call **Steve Lewis** at (770) 442-9805.

Asthma Treatment Plan

Date: _____ Time _____

Daily Treatment Plan: Have your child take **all** of these medicines **everyday** even when your child feels well.

Exercise Plan

Albuterol _____ puffs with a spacer prior to exercise

For coughing, wheezing or exercise symptoms not related to illness:

- Albuterol 1 vial premix (0.083%) solution **OR** Albuterol _____ puffs with a spacer

Sick Treatment Plan: Begin the Sick Treatment Plan if your child has a cough, wheeze, shortness of breath, or tight chest. Have your child take **all** of these medicines when your child is sick.

- Albuterol 1 vial premix (0.083%) solution. May give 4 times/day and 2 more times at night (If your child is not improved within 30 minutes, may give Albuterol 1 vial premix 0.83% solution AND call your health care provider)
- Albuterol _____ puffs with a spacer; may give 4 times/day and 2 more times at night. (If your child is not improved within 30 minutes, may give Albuterol _____ puffs with a spacer AND call your health care provider)

After all cough, wheeze, shortness of breath, or tight chest have gone away use your child's sick plan for 5 more days. Then go back to your child's Daily Treatment Plan.

Emergency Plan: If the asthma attack is not getting better after your child has been on the Sick Treatment Plan for **2** days, or in case of emergency, call the your healthcare provider.

Your next asthma follow-up appointment is with:

Healthcare Provider

Healthcare Provider Phone #

Date/Time

Was a copy of the Asthma Treatment Plan and Asthma Trigger Form given to family? Yes No Refused
Make sure you mark the appropriate asthma triggers.

Guardian/Caregiver Signature

Original: Medical Records Copy: Patient/Parent or Guardian

Physician Signature

Copy: Healthcare Provider

Source: Connecticut Children's Medical Center.

Elizabeth VanCleave, RN, BSN, CPN, AE-C, asthma clinician.

Actually, there were two organizations: One, which strictly dealt with core measurements, included VanCleave, a clinical nurse specialist, and a systems analyst. The asthma task force included respiratory therapists, pulmonary specialists, the asthma educator, chief resident, pharmacy, case managers, quality control, and pediatricians from the community.

"We had a home management plan of care,"

says VanCleave, "But it was not as measurable as The Joint Commission wanted and not as statistically measurable and consistent."

The team actually rewrote its discharge orders to reflect the care plan, says VanCleave, who notes that it had to be approved by the pharmacy, the pulmonary care specialist, and the hospitalist group. It included instructions for patients in the green, yellow (asthma is partially controlled), and red (uncontrolled) zones. "We did it in a format so the nurses can transcribe it into the care plan,"

says VanCleave. “We worked quite hard to get it into a readable format, and rewrote the care plan to match that since it was going on the computer.”

Continuous monitoring

Discharge order sets continue to be reviewed on a monthly basis, even though the facility has improved compliance from 57% to 88%. This ongoing monitoring includes tweaking of the plan to meet core measurements. “Our goal is 90%,” says VanCleave.

New residents are familiarized with the plan, and one-on-one training has been conducted with nurses on the floor, with inservices in other units, she adds. “We have written examples with binders to keep on other units,” VanCleave notes. “So, for example, in the peds ICU there are step-by-step instructions, in case they want to send a patient home, for example, at 6 a.m.”

There is continuous monitoring of compliance and appropriate performance; for example, says VanCleave, a second nurse always has to review and sign off on the discharge plan after the first nurse has done so, to make sure everything is correct.

“If they do not do something correctly, we engage with them one on one,” she says. “On occasion, we’ve done backtracking to make sure the residents tracked what they did correctly. I may go to the computer and see, for example, if the proper drug dosage and frequency had been ordered. We can go to the doctors and point out that something is inappropriate, as well.”

In addition, the systems analyst reviews all asthma charts for patients who are 2 years or older. The systems analysis nurse gives VanCleave the names of individuals who “failed,” how they failed, and what type of error was made. “I also look at all the patients that come out of the ICU, regardless of age,” adds VanCleave. “I do random charts audits — about 30 a month.”

Other keys to success, says VanCleave, are teamwork and a strong desire to achieve common goals. “Upper management is really on board; they’ve opened several doors for us to be able to teach nurses and residents,” she says. “They’ve allowed us to hold monthly meetings with new residents and not just leave it to the upper residents. We go in as nurses and teach, and we also present to the task force a continuing monitoring of the care plan situation.”

If someone is not doing what is expected, she

adds, “We can even take it to the medical care liaison for our floor, and they will personally review the chart. And when we have a difficult situation, they are on board with us and back us up.”

There can be only one

At Connecticut Children’s Medical Center, the preferred model was followed: “The most important thing we did was that there was one person dedicated to doing this on daily basis — me,” says Sacco.

While that was straightforward, she says, what wasn’t so straightforward was getting people to comply with the requirements. “Each day I looked at any child that had been admitted with asthma, reviewed the chart, and determined if the home management plan of care was on it,” she shares. “If it wasn’t, I’d send an e-mail to the vice president in charge of the hospitalists, and he’d talk to the doctors caring for the child to make sure it was put on there.”

The process is currently manual; computerized physician order entry (CPOE) in the facility is electronic, but at present the rest of the chart is not. Accordingly, the process can be time-consuming, “but you have to be vigilant and look at charts on a daily basis to make sure you have all the pieces in place,” says Sacco.

In creating the plan, she says, “We got input from pulmonary and respiratory therapists and the vice president of quality, who is also a hospitalist. We looked at the criteria and revised our plan of care to include all those elements.”

Once the plan was created, memos went out to the staff to make them aware of the new requirements. “It mostly impacted our pulmonary group and the primary care center, so we focused on them,” says Sacco. “We have a large number of pediatricians out in the community who could admit patients, and that was the hardest piece to get.”

How did they get the community physicians on board? “We went through their medical director once he was on board; it’s a large pediatrics group,” Sacco explains. “When he finds a community doctor who’s not compliant, he follows up and ensures the necessary improvements are made.”

Benchmarking a plus

Both Sacco and VanCleave agree that the benchmarking process made a major contribution to their success. “It was very valuable to see what the other hospitals were doing and to use some of

their ideas when we could,” Sacco says. “Everyone was very willing to share ideas on what was working and what was not. We had a few conference calls that MMP set up and were able to talk amongst ourselves; we also have a listserv we used with specific questions related to the asthma core measures, and that’s been very helpful.”

The greatest benefit, she says, came in setting up the actual form. “It was quite interesting to see how the others were doing it, and bounce ideas off each other as we developed them so we could meet [The Joint Commission] criteria,” she says. “In fact, we e-mailed our actual forms to each other through Sharon, looked at them, and took what we needed.” (A copy of Sacco’s form can be found on page 111.)

Benchmarking played a big role in motivating the staff at Kosair, says VanCleave, because “We wanted to meet the benchmark and be at the top, and the push to get it all correct has been huge. It’s been a collaboration of what we think works, what system works best, and the analytics nurse pulling the data. I can think that something’s good, but if she says no, we have to work on why.”

The greatest benefit, adds Lau, is “the ability to really know what works and what doesn’t in a known group of people. You can actually talk to them, pick apart your process and theirs, and compare not just data but the knowledge behind the data.”

BENCH has a list of characteristics for each hospital contained on an Excel spread sheet, with short answers next to each characteristic. “So, when you look at the data you can see ‘yesses’ and ‘nos’ and see if the other hospital said yes to the same questions you did; each answer gives you the opportunity to dig behind the scenes,” she explains. “If they said yes and you said no to a specific question, maybe that’s the key to the difference in performance.”

The question BENCH is now tackling, she continues, is whether the home management plan does what it is designed to do. “And that is to keep kids out of the hospital, to prevent readmissions to the hospital, to prevent ED visits, and so forth.”

In a conference call last week “we also discussed whether hospitals are using it as a tool when a child does come into the ED or into the hospital: Do they ask Mom and Dad whether they had followed the tool? Do they ask what parts of the tool they found useful?”

This involves the whole issue of knowledge

— what to do about the data when you get them, Lau explains. “When a patient comes back readmitted, is there someone to say to, ‘Mom, are you following the discharge plan? How did it work? Did it help you? Did your child avoid triggers?’” she poses. “If not, maybe you should take another look at the plan. You can be 100% compliant, but what is that doing to outcomes?”

[For more information, contact:

Sharon Lau, MMP, BENCHmarking Effort for Networking Children’s Hospitals, 2049 Balmer Drive, Los Angeles, CA 90039. Phone: (323) 644-0056. Fax (323) 644-0057. E-mail: sharon@mmp-BENCH.com. Web site: www.mmp-BENCH.com.

Tina Sacco, RN, BS, Clinical Quality Specialist, Connecticut Children’s Medical Center, 282 Washington Street, Hartford, CT 06106. Phone: (860) 545-9726. E-mail: Tsacco@ccmckids.org.

Elizabeth VanCleave, RN, BSN, CPN, AE-C, Asthma Clinician, Kosair Children’s Hospital, Louisville, KY. Phone: (502) 629-8544. E-mail: Elizabeth.VanCleave@nortonhealthcare.org. ■

Patient satisfaction upon discharge improved

Hospitalists, PCPs use communication software

When hospitalists use discharge communication software, patients and the outpatient doctors who carry out the care have better perceptions of the quality of the discharge process, according to new research published in the August issue of the *Journal of Hospital Medicine*.¹

Compared to standard systems, computerized physician order entry (CPOE) software:

- increased discharge preparedness scores from 17.2 to 17.7 for patients — a small but statistically significant increase;
- increased discharge quality scores from 16.5 to 17.2 for outpatient physicians — a small but statistically significant increase, but;
- decreased the “easiness” of the discharge workflow from 7.9 to 6.5 for hospitalists — a significant decrease.

James Graumlich, MD, associate professor of medicine and clinical pharmacology, chair in the department of medicine University of Illinois College of Medicine, is lead author of the study.

Graumlich and his colleagues designed the software and studied the experience of 631 patients and 70 hospitalists who had used it between November 2004 and January 2007 in a teaching hospital in Illinois.

Seeking to improve communications

“We knew from studies that had been published before and a review done by AHRQ [Agency for Healthcare Research and Quality] that there was a problem with communication between hospitalists and primary care physicians [PCPs],” says Graumlich, explaining the rationale for creating the software. “It was suggested that these barriers to communication were causing adverse events and/or readmissions to occur within one month.”

The current study, he continues, was specifically designed to see if the CPOE software would improve communications. “It was designed to include what were thought to be the ideal components of the discharge process as far as communication is concerned — medication reconciliation; letting the PCP know what tests were pending at the time of discharge; what tests were required as part of follow-up; and letting the patient know what the follow-up appointment date was,” Graumlich says. “All of this had been previously published in guidelines, but they had not been studied to see if it made a difference.”

In the study, he notes, half of the patients received the usual paper discharge instructions, while the other received them using the CPOE software.

On the network

During the study, Graumlich says, the software resided within the in-hospital network. “At the time of discharge, the doctor enters the information that’s in the software — there are about six screens that provide prompts and cues to remind them to enter it,” he explains. “The doctor does the ordering, and the output of the software goes to the nurse, who gives the discharge instructions to the patient and reviews it with them.”

Since most of the PCP community did not have access to secure computer systems, he continues, they were faxed the discharge instructions, with a backup copy sent through the U.S. mail. “There are some systems where they simply receive an e-mail and up pops the discharge instructions,” he notes.

Key Points

- Goal is to improve communications between hospitalists, PCPs.
- Software includes med reconciliation, tests completed at time of discharge.
- “Personal touch” produces better results than communication alone.

Graumlich observes that the hospitalists who used the software were asked two questions; if they were satisfied with the discharge process, and how difficult their part of the process was. Interestingly, they rated the software as being more difficult. “A later study found it takes longer to enter data into the computer,” he notes.

In a subsequent study published online this spring, Graumlich notes that there was no difference in adverse events, readmissions, or ED visits, “which surprised us.” However, when he and his team looked at what other people had done in discharge interventions that had made a positive difference, “One used a pharmacist for post-discharge check-ups, and another used a discharge ‘coach’ and an advocate practical nurse as a ‘discharge buddy,’ and those showed important differences,” he shares.

“We thought that improving communication by itself would make a difference [in outcomes].” Graumlich admits. “But it looks like with that personal touch the provider feels more ownership in processing that transition.”

Reference

1. Graumlich JF; Novotny NL; Nace GS; Aldag JC. Patient and Physician Perceptions After Software-Assisted Hospital AQ1 Discharge: Cluster Randomized Trial. *J Hosp Med* 2009; 4(6): DOI: 10.1002/jhm.565

[For more information, contact:

James Graumlich, MD, at (309) 655-7730.] ■

Multidisciplinary meetings lower LOS, excess days

Mandatory meetings involve all disciplines

Within 45 days after daily multidisciplinary patient care conferences were instituted at North Fulton Regional Hospital, the hospital’s

average length of stay dropped by more than a day and excess days decreased by more than 300 days within the first quarter of implementation.

The initiative has increased the hospital's compliance with core measures and allowed the case management department to better identify and track patients in observation status, says **Kamela Sooknanan**, RN, administrator of clinical quality improvement and case management services for the 202-bed hospital in Roswell, GA.

"The greatest asset to impacting quality of care has been the early identification of the need to involve additional disciplines in the patient's care and assigning accountability for meeting the patient's needs. All of the disciplines are there from the get-go to share information about the patients," she says.

Staff members make up for the time they spend attending the morning meetings later in the day because they don't have to track down individual disciplines for questions, Sooknanan adds.

When the hospital began the conferences in August 2006, Tenet Healthcare had begun a corporatewide initiative to have all the hospitals in the system implement daily patient care conferences to manage length of stay and improve overall patient outcomes.

"As case managers, we know how significant the multidisciplinary approach is to managing and coordinating patient care. In addition, at the time of the corporate roll out, our length of stay had been trending up. Therefore, this was the perfect opportunity to institute a daily care conference approach and meet both needs at once," Sooknanan says.

At the time, the hospital was holding weekly patient care conferences on the units, but they were poorly attended. The charge nurse presented the cases, and the team focused on the discharge plan and information sharing.

"The meeting structures were lacking in the care plan development process. Many people thought of them as being case management meetings and they just didn't attend," Sooknanan explains.

Now, the directors of every department make sure their staff attend the meetings, and directors also attend the meetings.

When the mandatory meetings were instituted, many staff members complained about the time commitment and competing priorities.

Key Points

- Forty-five days after daily multidisciplinary patient care conferences, LOS dropped more than a day.
- Directors of every department make sure their staff attend the meetings, and directors also attend the meetings.
- The team focuses on what is keeping the patient in the hospital and potential barriers to discharge.

Hospital management created a policy for daily patient care conferences, and the management team continually showed its support for the conferences.

For several months before the conferences were implemented, the team conducted focused housewide education, putting up posters on all the nursing units and introducing the concept of nursing and ancillary staff meetings. All directors received weekly e-mail updates. One-on-one education was conducted with key physician groups, and newsletters were sent to the entire medical staff.

The support of the hospital's leadership team was instrumental in getting the meetings off the ground, Sooknanan says.

"We let everyone know that these meetings were necessary to improve quality of care and length of stay. The way we approached it is that nobody gets a pass for not coming to the meetings on any day. It's ingrained as part of our operations," says **Iлона Wozniak**, chief operating officer.

In the beginning, Wozniak or someone else from senior management attended the daily meetings.

"This reinforced the expectation that we would see all of the multidisciplinary team members and directors at the meetings. If someone wasn't present, we would follow up with his or her supervisor. Directors are kept informed, and they know that a team is committed to this project and that it is mandatory for everybody to participate," she says.

Disciplines attending the meeting include case management; nursing; hospitalists on the medical units; physical, occupational, and speech therapy; pharmacy; respiratory therapy; nutrition; unit directors; ancillary directors; and the director of case management.

The meetings are held in the mornings at

staggered times so that no two units are meeting at the same time, allowing staff who cover multiple areas to participate. Each meeting covers 20-30 patients.

The team discusses every new admission on the morning after admission and discusses every patient with a length of stay of four days or longer.

"Each patient is discussed each day with the exception of Day 3 of their admission. Many patients are discharged on Day 3 of their hospital stay," Sooknanan says.

The meetings are very formal and have strict ground rules, which include no side conversations, and are redirected as needed to keep the focus on the patients and the issues affecting the progression of care.

The team is committed to starting and ending the meetings on time and limiting the time to 30 minutes, Sooknanan adds.

"Whenever a case is complex, we off-line it and the people most closely involved finish the conversation after the meeting," she says.

For instance, if a patient has significant social issues, instead of spending time at the meeting coming up with solutions, the case manager would consult with the other team members after the meeting.

The case managers lead the meeting. They introduce the patients and the diagnosis and turn it over to the nurse to present the patient's clinical status.

The team focuses on what is keeping the patient in the hospital and potential barriers to discharge. These include diagnosis and current status, home/ social situation, invasive devices, respiratory status, physical therapy and occupational therapy needs, diet and intake, wound care, and pertinent tests and procedures and tests that are pending.

(For more information, contact: **Kamela Sooknanan**, RN, administrator of clinical quality improvement and case management, North Fulton Regional Hospital, e-mail: Kamela.Sooknanan@tenethealth.com.) ■

For easy-to-read handouts, take layout into account

Score the document on design as well as readability

The health community has become increasingly aware of the need for health information written at a level most patients can understand.

To meet this need, many in the field of patient education have taken on the task of learning the guidelines of plain language, the recommendations in the current health literacy research, and how to evaluate the written materials they are producing and using in their organizations, says **Doug Seubert**, guideline editor in quality improvement and care management at Marshfield (WI) Clinic.

Much of the focus, however, is placed on the readability of the text: using simpler words and shorter sentences, avoiding medical and technical jargon, and using a readability calculator to establish a reading ease or reading grade level score between a sixth to eighth grade level, he adds.

"Even when we do this, we still end up creating documents that are difficult to read if we don't also evaluate the layout and design of the document," says Seubert.

For example, if the font is too small, the document will be difficult to read, even if it is written at an appropriate reading grade level for patients.

Convenient. Career-focused. Cost-effective.

AHC Media Case Management Certification Prep Course



- ✓ **Learn** at your own pace;
- ✓ **Earn** 18 nursing contact hours;
- ✓ **Understand** the major areas of the test;
- ✓ **Receive** one-on-one email access to your instructor; and
- ✓ **Pass** the exam!

Visit <http://learning.ahcmedia.com> for more information.

Well-chosen fonts, using shorter line lengths, and including generous margins and white space in a document make it easier to read. These and other design elements control the legibility of a document, which is part of its overall readability, he explains.

While there are tools to evaluate the readability of text, Seubert found there are very few tools that evaluate layout and design and how they impact the readability of documents.

He created a toolkit called “Improving Readability by Design” for a presentation at the 2009 Wisconsin Health Literacy Summit.

“There are a number of document design checklists, manuals, and handbooks that give recommendations for designing patient education materials, but to my knowledge there isn’t a design evaluation tool that produces a numeric score like readability calculators, so that is what I attempted to do,” explains Seubert.

Evaluating layout & design

The design readability scorecard is based on seven design elements that include font, paragraphs, line length, grouping, graphics, color, and white space. Each design element can have a positive or a negative effect on readability, depending on how it is used.

The scorecard lists the positive and negative aspects of each design element and provides a way to score the design and layout of a document. Points are added to the score for design elements that enhance readability. Points are subtracted from the score for design elements that make a document more difficult to read.

For example, a document written in Times New Roman or comparable font and at least 12 points in size would score positive points. If that font was italicized, underlined, or written in all caps, for example, the document would have points subtracted from the total, because text that is italicized, underlined, or written in all caps is harder to read.

After all seven design elements are evaluated and scored, the points are totalled to determine the document’s overall design readability score. A document can have a maximum of 65 points.

The documents that score closer to 65 are designed to be easier to read. Documents that score in the 45 to 50 range have some minor design flaws that should be corrected before using the document with patients. Documents that score below 45 should be redesigned before

use, according to Seubert.

Seubert selected the seven design elements used for layout and design evaluation after reviewing several manuals and handbooks on document design. He said he noted most manuals covered the same elements, although they were not always referred to by the same name or defined the same way.

“The elements I included could be more accurately described as categories, because each one covers more than one concept,” states Seubert.

For example, fonts have two main considerations — size, commonly measured in points and picas, and a font’s classification. The two main types of fonts are serif and sans serif, and each category has font families. A common family of sans serif fonts is Arial. Within that family of fonts are Arial, Arial Black, and Arial Narrow. Each of these can also be bold, italicized, or both, which creates a myriad of combinations and variations within each font, explains Seubert.

One design element on the scorecard was titled “grouping” by Seubert and includes bulleted lists, numbered lists, tables and figures, and other methods used to group information together other than standard prose paragraphs.

Seubert says a few manuals and handbooks he uncovered during his research provide specific recommendations for margins and white space; however, many provide only vague suggestions.

“I think the reason so many of the recommendations are vague is that design is very subjective. After all, document layout and design is often referred to as ‘graphic arts.’ The very term design implies a subjective, artistic quality,” explains Seubert.

Often, when people choose fonts, they select the ones they prefer or those they think look good on the page. Few think about the preferences of the end users, perhaps mistakenly thinking that everyone shares common preferences, says Seubert.

The toolkit doesn’t resolve the issue of subjectivity. Seubert says there is no value to recommending all documents have a 1-inch margin, for example. While a 1-inch margin works for a letter, it does not work for a brochure. It depends on the type of document.

“What I tried to do is provide a way to assign an objective, measurable, quantitative score to a document based on subjective, variable concepts of good design,” explains Seubert. ■

Noncompliance may mean patients misunderstand

Low health literacy contributes to readmissions

If your patients aren't following their treatment plan, it may not be that they are non-adherent. It could be that they simply do not understand what they are expected to do.

"People have to understand what their health care providers are saying. At the end of the day, if you can't communicate effectively, it doesn't matter how much time you spend trying to give people health education or get them to take responsibility for managing their conditions. They can't adhere to a treatment plan if they can't understand it," says **Jay Feldstein**, DO, corporate chief medical officer for the AmeriHealth Mercy Family of Companies.

Low health literacy is a problem that leads to poor medical outcomes for millions of Americans and adds millions of dollars in costs to the health care system, Feldstein adds.

In fact, in its 2004 report "Health Literacy: A Prescription to End Confusion," the Institute of Medicine estimated that poor health care literacy cost the health care system more than \$58 billion a year.

The inability of many Americans to read, combined with the use of medical jargon that even people who can read have difficulty understanding, creates a tremendous health care literacy problem, adds **Gloria Mayer**, RN, EdD, CEO for the Institute for Healthcare Advancement based in LaHabra, CA.

About 90 million adult Americans can't read above the fifth-grade reading level, Mayer says, pointing out that most health education materials are written between the eighth grade and college level.

As case managers talk with their patients, either in person or over the telephone, they should make sure that patients understand their medication regimen, their follow-up appointments, and other elements of their treatment plan, adds **Aracely Rosales**, BS, chief content expert and multilingual director of Health Literacy Innovations.

They should make it a point to talk in plain language, and avoid medical jargon that is beyond the comprehension level of many patients.

"When patients aren't familiar with the terminology the case manager uses, they miss the message, and they don't understand what they need to do so that translates into non-adherence," she says.

Instead of saying "myocardial infarction" use "heart attack." Substitute "pee" for "urine" and "X-ray" for "radiology," Mayer suggests.

Remember that patients can absorb only two or three things at a time. Even if you have 20 items on their chart that need discussing, break them into small portions.

"If people are sick, they are even less likely to understand everything you are telling them," she adds. Make sure that your patients understand what you have told them, she adds.

Confirming understanding is an essential step in communication and one that often gets left out, says **Helen Osborne**, MEd, OTR/L, president of Health Literacy Consulting, a Natick, MA, firm.

"We as health professionals do our best to use plain language, but doing that alone is not sufficient. We need to make sure our message is understood," she says.

If you are talking to someone, confirm his or her verbal understanding. If you are preparing written materials, confirm that the recipient will understand it. If you have a document translated into another language, have it translated back into English to make sure it makes sense, she says.

One way to make sure that your clients understand is the teach-back method, Mayer adds. Ask them to tell you what they're going to do when they go home. Go over their medication, and then ask them to tell you how and when they're going to take their pills.

Give them a call back a few days later and ask them what they are doing to take care of their wound and what medication they are taking at what time of day.

As you talk to patients, pause and confirm understanding when you come to a key point, Osborne suggests. Don't pause after every sentence. That is repetitive and the patient will get bored. Pause only after the key points, she says.

Put the responsibility for clear communication on yourself by saying something such as "I want to make sure I explained this clearly. Tell me again which medication you will be taking and when."

Involve the family whenever possible, so if the client doesn't understand what you are saying,

the family member will, Mayer suggests.

Make sure that you are really listening to what the other person says when he or she responds, Osborne adds.

“When patients tell us in their own words, we can see where the gaps in information are and further clarify the information,” Rosales says.

If the patient or family member doesn’t understand a key point, explain it again in other ways.

“Don’t just say the same thing louder. Explain it a different way and confirm understanding again,” Osborne says.

When you talk to clients, limit the information in each conversation to two or three important facts.

“Don’t give them so much information they can’t absorb it,” she says.

Don’t just ask if the patient has any questions. It’s too easy for them to answer “no,” Osborne points out.

“If someone is feeling overwhelmed or awed, they may not feel it appropriate to ask questions. Case managers may have to try different strategies to coach and coax out questions,” Osborne says.

For instance, say, “Many people who have your disease want to know about X. Is that something you want to discuss?”

Or simply ask: “What questions do you have?”

If you have done your best in explaining and the other person still isn’t getting it, think about other ways to communicate that message. If that doesn’t work, look for other options. For instance, maybe the patient could benefit from a few visits from a home health nurse to demonstrate how to take the medicine.

Mayer suggests making sure that educational materials are simple and to the point so every client can understand them.

“Some people argue that college-educated patients would be insulted by easy-to-read materials, but in fact, nobody ever complains that something is too easy to understand. We’ve published five health care books for adults and nobody has said they were too simple,” she says.

When you develop written materials, always get input from the people who are going to be reading them, Osborne suggests.

“It takes a team to write a readable document. This includes a content expert, a plain language writer or editor who knows how to use plain language and is an advocate for the reader, and representatives from the reading audience,” she says.

When you are writing something that goes out to a particular group of people, send the first draft to readers and get feedback. Consider what they tell you, revise the document, and send it out for input again, she suggests.

When you produce written material, make sure that the material contains only the key points the patient needs, Rosales suggests.

“The information should be targeted to the actual person and tell them step by step what they need to do,” she says.

“Often medical professionals give patients a lot of scientific information about their disease, such as how it develops and why the body goes through changes. But what patients really need to know is that they should check their blood sugar daily or take their medication three times a day,” she says. ■

Joint Commission deadline on MDRO goal is Jan. 1

The Joint Commission’s 2009 patient safety goal regarding multidrug-resistant organisms (MDROs) includes the following key provisions and deadlines:

- Implement evidence-based practices to prevent healthcare-associated infections due to multidrug-resistant organisms in acute care hospitals. This requirement applies to, but is not limited to, epidemiologically important organisms such as methicillin-resistant *Staphylococcus aureus*

COMING IN FUTURE MONTHS

■ Hand hygiene compliance project includes radio frequency technology

■ H1N1: Lessons learned from the spring outbreak

■ Using the Internet to share ideas on the medical literature

(MRSA), *Clostridium difficile* (CDI), vancomycin-resistant *Enterococci* (VRE), and multiple drug-resistant gram-negative bacteria.

This requirement had a one-year, phase-in period that includes defined expectations for planning, development, and testing (milestones at three, six, and nine months in 2009, with the expectation of full implementation by Jan. 1, 2010.) As of Jan. 1, 2010, hospitals should have addressed the following issues to comply with this goal.

- Based on a risk assessment, the hospital educates staff and licensed independent practitioners about healthcare-associated infections, multidrug-resistant organisms, and prevention strategies at hire and annually thereafter. The education provided should recognize the diverse roles of staff and licensed independent practitioners and be consistent with their roles within the hospital.

- The hospital implements a surveillance program for multidrug-resistant organisms based on the risk.

- The hospital measures and monitors multidrug-resistant organism prevention processes and outcomes including the following:

- Multidrug-resistant organism infection rates using evidence-based metrics

EDITORIAL ADVISORY BOARD

Kay Beauregard, RN, MSA
Director of Hospital Accreditation
and Nursing Quality
William Beaumont Hospital
Royal Oak, MI

Kathleen Blandford
Vice President of
Quality Improvement
VHA-East Coast
Cranbury, NJ

Mary C. Bostwick
Social Scientist/
Health Care Specialist
Malcolm Baldrige
National Quality Award
Gaithersburg, MD

James Espinosa
MD, FACEP, FFAFP
Director of Quality Improvement
Emergency Physician Associates
Woodbury, NJ

Ellen Gaucher, MPH, MSN
Vice President for Quality
and Customer Satisfaction
Wellmark Inc.
Blue Cross/Blue Shield of Iowa
and South Dakota
Des Moines, IA

Robert G. Gift
Practice Manager
IMA Consulting
Chadds Ford, PA

Judy Homa-Lowry, RN, MS, CPHQ
President
Homa-Lowry Healthcare Consulting
Metamora, MI

Sharon Lau
Consultant
Medical Management Planning
Los Angeles

Philip A. Newbold, MBA
Chief Executive Officer
Memorial Hospital
and Health System
South Bend, IN

Duke Rohe, FHIMSS
Performance Improvement Specialist
M.D. Anderson Cancer Center
Houston

Patrice Spath, RHIT
Consultant in Health Care Quality and
Resource Management
Brown-Spath & Associates
Forest Grove, OR

To reproduce any part of this newsletter for promotional purposes, please contact:

Stephen Vance

Phone: (800) 688-2421, ext. 5511

Fax: (800) 284-3291

Email: stephen.vance@ahcmedia.com

To obtain information and pricing on group discounts, multiple copies, site-licenses, or electronic distribution please contact:

Tria Kreutzer

Phone: (800) 688-2421, ext. 5482

Fax: (800)-284-3291

Email: tria.kreutzer@ahcmedia.com

Address: AHC Media LLC
3525 Piedmont Road, Bldg. 6, Ste. 400
Atlanta, GA 30305 USA

To reproduce any part of AHC newsletters for educational purposes, please contact:

The Copyright Clearance Center for permission

Email: info@copyright.com

Website: www.copyright.com

Phone: (978) 750-8400

Fax: (978) 646-8600

Address: Copyright Clearance Center
222 Rosewood Drive
Danvers, MA 01923 USA

- Compliance with evidence-based guidelines or best practices

- Evaluation of the education program provided to staff and licensed independent practitioners

- The hospital provides multidrug-resistant organism surveillance data to key stakeholders, including leaders, licensed independent practitioners, nursing staff, and other clinicians.

- The hospital implements policies and practices aimed at reducing the risk of transmitting multidrug-resistant organisms that meet regulatory requirements and are aligned with evidence-based standards (for example, the Centers for Disease Control and Prevention (CDC) and/or professional organization guidelines).

- When indicated by the risk assessment, the hospital implements a laboratory-based alert system that identifies new patients with multidrug-resistant organisms. The alert system may be either manual or electronic or a combination of both of these methods. The alert system may use telephones, faxes, pagers, automated and secure electronic alerts, or a combination of these methods. In addition, if indicated by the risk assessment, the hospital implements an alert system that identifies readmitted or transferred multidrug-resistant, organism-positive patients. ■