



HOSPITAL PEER REVIEW®

YOUR BEST SOURCE FOR ACCREDITATION COMPLIANCE

ACCREDITATION • CREDENTIALING • DISCHARGE PLANNING • MEDICARE COMPLIANCE • PATIENT SAFETY • QI/UR • REIMBURSEMENT

MAY 2019

Vol. 44, No. 5; p. 49-60

→ INSIDE

Study Finds Variety of Methods to Reduce Telemetry Use.....51

ABCDEF Bundle Brings Benefits, Challenges54

Bundle Is Game Changer for ICU Quality.....55

Quick Wins in Hand Hygiene, Disinfection.....55

Press Ganey Finds Higher Engagement Tied to Better Outcomes.....57

Net Promoter Scores Used to Address Patient Satisfaction, Quality58

Hospitals Can Improve CPOE Effectiveness59



RELIAS
MEDIA

Overmonitoring Addressed With EHR Order Set, Adherence to Best Practices

A Minnesota hospital is addressing the problem of overmonitoring patients with an order set in the electronic health record (EHR) that prompts clinicians to limit monitoring and unit assignments

to only what is needed. Introducing the system was not without challenges, however.

Excessive and unnecessary electrocardiogram (ECG) monitoring of patients is a common problem in hospitals, says **Sue**

Sendelbach, PhD, APRN CNS, who retired recently from her position as director of nursing research at Abbott Northwestern Hospital in Minneapolis. She worked at that time with Allina Health colleagues at nearby United Hospital/Allina Health

Leaders in St. Paul, MN, to reduce unnecessary monitoring so that care could be improved for patients and resources could be used more appropriately for those needing more monitoring, she says.

“A lot of times, patients would be monitored for days without an assessment to determine if they really needed to have that monitoring continued.

Hospitalists would put patients on our telemetry units for progressive care

and say the patient doesn’t need to be monitored, but then the nurses thought they needed to be monitored because it was a telemetry unit,” she says. “There was a lot of confusion around who needed to be monitored. It was not without risks, either,

EXCESSIVE AND UNNECESSARY ECG MONITORING CAN CONTRIBUTE TO ALARM FATIGUE AND HAS EVEN BEEN TIED TO FATALITIES.

ReliasMedia.com

Financial Disclosure: Author **Greg Freeman**, Editor **Jesse Saffron**, Editor **Jill Drachenberg**, Nurse Planner **Jill Winkler**, Editorial Group Manager **Terrey L. Hatcher**, and Consulting Editor **Patrice Spath** report no consultant, stockholder, speaker’s bureau, research, or other financial relationships with companies having ties to this field of study.



HOSPITAL PEER REVIEW

YOUR BEST SOURCE FOR ACCREDITATION COMPLIANCE

Hospital Peer Review® (ISSN 0149-2632) is published monthly by Relias LLC, 1010 Sync Street, Suite 100, Morrisville, NC 27560-5468. Periodicals postage paid at Morrisville, NC, and additional mailing offices. POSTMASTER: Send address changes to *Hospital Peer Review*, Relias LLC, 1010 Sync Street, Suite 100, Morrisville, NC 27560-5468.

GST registration number R128870672.

SUBSCRIBER INFORMATION:

Customer Service: (800) 688-2421
customerservice@reliasmia.com
ReliasMedia.com

SUBSCRIPTION PRICES:

U.S.A., Print: 1 year: \$519. Add \$19.99 for shipping & handling. Canada: Add \$30 per year. Total prepaid in U.S. funds.

Printed back issues are \$50 each
Online only: 1 year (Single user): \$467

Discounts are available for group subscriptions, multiple copies, site-licenses, or electronic distribution. For pricing information, please contact our Group Account Managers at groups@reliasmia.com or (866) 213-0844.

ACCREDITATION:

Relias LLC is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation. Contact hours [1.25] will be awarded to participants who meet the criteria for successful completion. California Board of Registered Nursing, Provider CEP#13791.

This activity is valid 36 months from the date of publication.

The target audience for *Hospital Peer Review*® is hospital-based quality professionals and accreditation specialists/coordinators.

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.

AUTHOR: Greg Freeman

EDITOR: Jesse Saffron
(919) 377-9427 (jsaffron@relias.com)

EDITOR: Jill Drachenberg
(404) 262-5508 (jdrachenberg@relias.com)

EDITORIAL GROUP MANAGER: Terrey L. Hatcher

ACCREDITATIONS MANAGER: Amy M. Johnson, MSN, RN, CPN

Copyright© 2019 by Relias LLC. All rights reserved. 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.

because the literature has shown that patients who are monitored will have a higher risk of adverse outcomes.”

Excessive and unnecessary ECG monitoring can contribute to alarm fatigue and has even been tied to fatalities, Sendelbach notes. The best practice for ECG monitoring calls for it to be used outside of the ICU only with a program that includes continuing assessment of its value, with the option to discontinue it while the patient remains outside of the ICU, she says.

Guidelines Available for Monitoring

The goal was to have ECG monitoring outside the ICU only for those patients who truly needed it, Sendelbach says. To accomplish that, she worked with **Kristin Sandau**, PhD, RN, staff nurse at United Hospital/Allina Health and professor of nursing at Bethel University in St. Paul. Sandau chaired the 2017 American Heart Association (AHA) team that updated the ECG monitoring practice standards. (*The standards are available online at: <https://bit.ly/2V9lv2V>. See the sidebar on page 51 for a report on how some hospitals address overuse of cardiac monitoring.*)

Sandau says the overuse of ECG monitoring is a side effect of the rapid proliferation of technology in healthcare over recent years.

“We have come to a point where we have more technology than needs to be used sometimes with our patients. So we need to pause and take time to review the evidence and determine what really needs to be used for patients in a way that will help them,” Sandau

says. “A lot of this monitoring has been grandfathered into patient care without any studies. Some of it makes sense, because if someone is having a heart attack, we don’t need a randomized, controlled trial to tell us that monitoring is appropriate. But there are quite a few populations for which we don’t have the evidence indicating they need to be monitored.”

Way Too Much Monitoring

To address the problem, the team at Allina Health began by getting a baseline assessment of how many patients outside the ICU were monitored. An assessment of charts suggested that, according to the AHA guidelines, the system might have been overmonitoring by as much as 50%, Sandau says.

“That first informal assessment was to determine if we had an actual problem that justified investing resources in this, and we found out that indeed we seemed to have an incredible amount of overmonitoring of patients who were receiving remote monitoring on a noncritical care, nonprogressive care telemetry unit,” Sandau says.

“They might be in with a foot ulcer or a GI bleed. But you can have a GI bleed and be very stable or you can be in an ICU, so we can’t just use diagnoses.”

Instead, clinical judgment and guidelines are necessary to dictate when ECG monitoring is necessary, she says. The team at the hospital determined that an order set would be the most effective way to guide decision-making on ECG monitoring, but implementing an order set often is no easy task,

says **Steven Hanovich**, MD, MS, an intensivist at United Hospital/Allina Health in St. Paul.

When introducing any new order set or other clinical guidance, resistance from physicians is to be expected, Hanovich says. They respond by saying they already know how to take care of patients, so why are you telling them what to do and what monitoring to order?

Physicians responded to the call for better monitoring decisions more positively than expected.

“The challenge is always to get them to listen to you, to educate them on why this is good for patient care. In this particular case, we had the advantage of saying there are some very specific practice guidelines on when to use cardiac monitoring,” Hanovich explains. “They were excited to learn these existed, and there was a thirst for the knowledge because they all realized we were using cardiac monitoring as a babysitter. A lot of doctors thought we were overdoing it. I knew we were.”

Monitoring Does Not Mean More Care

Sandau says physicians who overprescribe ECG monitoring often are under the impression that the monitoring means their patients receive more care from nurses, that they are checked more often, and that any type of problem will be discovered sooner.

That’s not the case, she says. Physicians may think their patients will receive more attention with monitoring because those units have more staff, but even that is not true across all shifts, Sandau explains. “They see the cardiac monitoring as a proxy for higher

staffing levels, and we need to be helping physicians understand it just does not work that way. Putting your patient on a cardiac monitor does not mean they receive the more attentive care that you think they should have and would have if we had more staff available,” Sandau says. “But not monitoring does not mean that your patient

receives inadequate care, either. We do need the right staffing levels, but it also is important that the patients be on the unit where they need to be.”

Hanovich confirms that it can be common wisdom among physicians that ordering cardiac monitoring, whether the patient truly needs it or not, is an effective way to get better

Study Finds Variety of Methods to Reduce Telemetry Use

A recent report in *JAMA Internal Medicine* found that hospitals are using various approaches to reducing unnecessary telemetry for cardiac monitoring, but not enough are using the American Heart Association (AHA) guidelines.

“Unfortunately, the AHA Practice Standards have not been widely adopted — with as many as 43% of monitored patients lacking a recommended indication for monitoring. Thus, we created an overview discussing the safety and efficacy of incorporating the AHA Practice Standards and a review of studies highlighting their successful incorporation within patient care workflow,” the authors wrote. “We conclude by outlining an ‘implementation blueprint’ for health system professionals and administrators seeking to change their institution’s culture of telemetry use.”

The researchers looked at eight previous studies and assessed how the hospitals involved were using the AHA guidelines and addressing overuse of telemetry.

They found these approaches:

- using email reminders, rounding, and presentations to encourage physicians to become more familiar with the AHA standards;
- having physicians justify the indications for telemetry and renew orders before monitoring is continued;
- reducing the monitoring period;
- financial incentives for compliance with guidelines on telemetry use;
- automatic discontinuation of telemetry after a specified time, requiring a new physician order to resume monitoring.

Some of the hospitals reported a reduction in telemetry orders and monitoring duration, but not all.

An abstract of the report is available online at: <https://bit.ly/2ORJAbv>. ■

care for your patient. “It’s a line you hear over and over throughout your training and residencies — just admit them to a telemetry unit, and they’ll get closer care up there,” Hanovich says. “That’s just accepted as a real-world strategy, so you have to start by explaining to them that’s not true.”

EHR Integration Was Challenging

The hospital team developed the order set using the AHA guidelines and gained approval to introduce it throughout the Allina health system, but integrating it into the care process was not easy. The EHR was the biggest challenge, Hanovich says. He had recently been trained by the vendor in programming the hospital’s EHR, so he was able to build a dashboard for ECG monitoring into the existing system.

A primary concern was to make it user-friendly, which for clinicians means not having to click through too many options and enter too much information to get to what you want, he explains. In his training on the EHR platform, he had seen how a few other hospitals were implementing cardiac monitoring protocols.

“Some hospitals had decided their criteria for cardiac monitoring and placed the onus on the nurses to decide when to stop monitoring because the indications were gone. But we had decided early on that it would be the doctor making that decision; the doctors were going to own this,” Hanovich says. “So I had to come up with a way to achieve that and the best way still to decrease the amount of clicks.”

He determined that the best

approach when the physician entered an indication for cardiac monitoring was for the EHR to present a menu of orders appropriate for that indication.

“We built the order such that they only saw a few things on the screen at a time, and based on what they ordered, they would see another few things to click on,” Hanovich says. “The doctor had to give the indication for the order, which made the doctor think about why telemetry was being ordered.”

That still added a few more clicks to an EHR process that many clinicians already found bothersome, so the order set team had to sell physicians on the reasons behind the change.

“I told them yes, we have a couple more clicks on here, but if you think about what we’re doing and how the end result is better patient care, you’ll feel better about what you’re thinking of as unnecessary, extra clicks,” Hanovich says.

“We implemented this with a road show. Sue and I went to every hospital in our system and met with the hospitalists, the primary ordering teams for cardiac monitoring, for a half hour to an hour at a time. It was the interpersonal relationships that got all of this going with a surprisingly small amount of guff from the physicians.”

Sell the Reason for Changing

Sandau also points out that clinicians are more likely to bristle at being told by upper-level administrators or even top physician leaders how to care for their patients. The new order set

was presented more as the result of a collaboration among many clinicians looking for the best solution that would provide better care, she says.

“You have to be wise in understanding that people don’t like receiving a top-down mandate for change, at least not without having some personal involvement in the decisions leading to that change,” Sandau says. “At the same time, you also have to gauge how much people at different hospitals or in different areas want to be involved and respond accordingly. We had some hospitals where people wanted to be involved in the process and provide input, so you have to take some time and exchange emails with them. But we also had some other smaller sites that more often just wanted it handed to them, ready to plug in.”

Sendelbach points out that the team also trained all the nurses and cardiac technicians responsible for cardiac monitoring. At Abbott Northwestern, she visited them often during the implementation of the new order set to see whether they had any questions.

“We made a very concerted effort to involve stakeholders and keep communication lines open so that people could call you up and ask, ‘What about this patient or what about this situation?’” Sendelbach says. “It also was important to have clinical champions who could make this work by supporting it among their peers. We had champions who were cardiologists, intensivists, hospitalists, [and] nurses, and they made a big difference in moving this forward.”

It also was important to have a team member from the EHR department to help with

introducing the order set and tweaking the EHR component after implementation, as well as a project manager to help coordinate the contributions of all the members, Sendelbach says.

Gradual Introduction to Health System

Allina Health introduced the order set at just a few hospitals at first, giving the team time to fine-tune it before rolling it out across the system's 13 hospitals and 90-plus clinics in Minnesota and western Wisconsin.

"You can build what you think works great, but you don't know until you actually go live with it what works and what doesn't. Our order was very successfully implemented without any major difficulties at the first hospitals, but there are always a few little things you find when you first roll out something like this," Sandau says. "Be sensitive, listen to your end users, and respond to what they're saying."

Sendelbach, Sandau, Hanovich, and their colleagues recently reported on their use of the order set, saying the proportion of appropriately monitored patients increased from 48% before implementation to 61.2% after.

"Hospitalists, none of whom completed the formal education, had no statistically significant improvement in adherence to the practice standards (51.6% appropriate monitoring before intervention vs. 56.6% after intervention; $P = 0.51$), whereas medical residents, who received mandatory education, had a statistically significant improvement in ordering compliance, from 30.8%

appropriate monitoring before intervention to 76.5% after the intervention," they reported. "Most striking was the difference between hospitalists and medical residents in their participation in education and correct use of the electronic order set. Although education alone does not change practice, our results indicate that education may provide a key element to understanding the rationale for a practice change and may increase adherence to the practice change." (*The full report is available to review online at: <https://bit.ly/2UXoHhQ>.*)

Some Patients Still Hard to Classify

Sandau notes that they found no increase in adverse outcomes for the patients who were not monitored under the new protocol, although she suggests that is an area that could use further study. Other remaining questions involve patients who may not seem to fit easily into one category for ECG monitoring.

For example, what do you do with a patient who has an indication for monitoring when the potassium level is very low, but then that level comes up the next day, and then goes down the following day?

The team at United Hospital/Allina Health includes those patients in the protocol for ECG monitoring, but Sandau says fine-tuning the guidelines and order sets for difficult cases like that will be an ongoing effort.

"If it's an orthopedic issue but they're in a rapid atrial fibrillation, is the solution to be on a cardiac step-down so the nurse can manage the AFib after surgery [even if the nurse is] perhaps less familiar with the orthopedic care?" Sandau says.

"Or is it better to have them on an orthopedic unit and remotely monitored by nurses who are not at that station? Those are questions that we still need to answer, and we'd like sites that are building remote monitoring to look at the evidence for that and share with each other."

Nurses on some units may be made uncomfortable by caring for patients on their unit with remote monitoring overseen by nurses elsewhere, Hanovich says.

He and Sandau say that is an issue that hospitals must address if they use remote monitoring, particularly if they are trying to place patients on more appropriate units to reduce overmonitoring.

"We have a lot of stakeholders who truly want the best for their patients, so if they don't feel qualified or ready, they will balk at these patients being admitted to their units. It's not that they don't want to do the work, but rather that they don't want to take on a patient for whom they cannot provide proper care," Sandau says.

"A lot of conversations have to take place to get patients in the right units with the right monitoring, but also to make the nurses and other caregivers comfortable with what you're doing." ■

SOURCES

- **Steven Hanovich**, MD, MS, Intensivist, United Hospital/Allina Health, St. Paul, MN. Phone: (651) 241-8000.
- **Kristin Sandau**, PhD, RN, Professor of Nursing, Bethel University, and Staff Nurse, United Hospital/Allina Health, St. Paul, MN. Phone: (651) 241-8000. Email: k-sandau@bethel.edu.
- **Sue Sendelbach**, PhD, APRN CNS (retired), St. Paul, MN.

ABCDEF Bundle Improves Care in ICU, but EHR Can Be Hurdle

The ABCDEF bundle is gaining acceptance as an effective way to improve the care of critically ill patients, but some hospitals find implementation difficult. One hospital's experience illustrates some of the challenges — and the strategies that can help overcome them.

The ABCDEF bundle is a resource from the Society of Critical Care Medicine that uses multiple assessments and strategies to reduce delirium and improve pain management for patients in intensive care. It also can improve long-term outcomes. The name is taken from the key components of the bundle: A — assess, prevent, and manage pain; B — both spontaneous awakening and spontaneous breathing trials; C — choice of analgesic and sedation; D — delirium: assess, prevent, and manage; E — early mobility and exercise; and F — family engagement and empowerment.

(Information on the ABCDEF bundle is available online at: <https://bit.ly/2V001Wc>. A Critical Care Nurse journal article on implementing the bundle is available online at: <https://bit.ly/2HTC1AA>.)

Covers All ICU Patients

The bundle is different from some others in that it is not disease-specific, says **Brenda T. Pun**, DNP, RN, FCCM, program clinical manager for critical illness at the Brain Dysfunction and Survivorship Center at Vanderbilt University Medical Center in Nashville, TN. Vanderbilt has

implemented the ABCDEF bundle with success.

“I often call it the wallpaper of the ICU. It should be visible in every patient's room because it applies to everyone in the unit,” Pun says.

“It becomes this framework in which we can plug in any new recommendations or changes in the literature over time, keeping us all on the same page. It has many components that link together the many multidisciplinary players in an ICU — the nurse, doctor, respiratory therapists, social worker, physical therapist, pharmacist, family members.”

The bundle helps remind each participant of their teammates' involvement and concerns, Pun says. It helps the team implement best practices outlined in other guides for ICU care, with each component standing alone but still interconnected with the others, she explains.

“For example, it's really hard to mobilize a deeply sedated patient. If you're only thinking about mobility and only implementing that component, disregarding pain, delirium, sedation levels, family presence, and the patient's history of mobility, your efforts to implement the mobility component almost is set up for failure from the beginning,” Pun says.

“It's not going to be sustainable with this patient or as a pattern within the unit. The bundle helps us to think about these things in concert, realizing that reducing sedation is a priority because it is so important for the patient to mobilize, not just because it is

important for my patient to receive less sedative.”

Pun notes that any hospital can implement the ABCDEF bundle without any special resources. However, that doesn't mean there are no challenges in implementation.

Pun recently was involved with research looking at the experience of many hospitals, and the first conclusion was that implementing the ABCDEF bundle improves outcomes, discharge rates, survival, use of physical restraints, and readmissions.

“It's definitely doable, but it's different for every unit implementing this bundle. It's a different team and different resources, so that changes what is required to introduce this into your ICU culture and your workflow,” she says. “But the bundle can be used in any setting, with any type of hospital, and the question is just exactly how to merge this into your operations.”

EHR Can Be Problematic

Part of the challenge is that the ABCDEF bundle can seem like introducing six different programs at once, Pun explains. The biggest challenge, however, tends to be incorporating the bundle into the electronic health record.

“The use of this bundle highlights some problems in our big electronic record systems, the biggest being Epic and Cerner. Our charting, as professionals, is siloed in those systems, but the whole

purpose of this bundle is to de-silo us so that we are communicating,” Pun says. “We quickly realized that a big barrier to tracking progress and facilitating communication is the way the electronic systems require us to chart in a very specific way so that nursing has no view of what respiratory therapy is charting, and they can’t see what nurses are charting.”

Pun and her colleagues have been working with the biggest EHR vendors to create dashboards that alleviate that problem, allowing team members to see what others are doing with each patient.

“Hospitals frequently complain that it is difficult to access the records to track their progress, much less use them in a meaningful way for daily clinical care,” Pun says.

“That was a huge hurdle for many of the sites where we studied use of this bundle. People were creating their own side versions in Excel to track progress and then try to export it in some way to create that communication link among team members.” ■

SOURCE

- **Brenda T. Pun, DNP, RN, FCCM,** Program Clinical Manager, Critical Illness, Brain Dysfunction and Survivorship Center, Vanderbilt University Medical Center, Nashville, TN. Phone: (919) 484-3964. Email: brenda.pun@vumc.org.

Analysis Finds ABCDEF Bundle Is Game-Changer for ICU

Researchers at Vanderbilt University Medical Center in Nashville, TN, and other institutions assessed the ABCDEF bundle in 2018 and concluded that it “represents one method of approaching the organizational changes that create a culture shift in treatment of ICU patients.”

The benefits outweigh the associated costs and required coordination, the researchers concluded.

“Ultimately, the ABCDEF bundle is one path to well-rounded patient care and optimal resource utilization resulting in more interactive ICU patients with better pain control, who can safely participate with their families and healthcare providers in higher-order physical and cognitive activities at the earliest point in their critical illness,” the researchers said in a study report. (*The report is available online at: <https://bit.ly/2HMHppw>.*)

These are some key findings from the report:

- “Assessment of pain is the first step before administering pain relief. The Behavioral Pain Scale (BPS) and the Critical-Care Pain Observation Tool (CPOOT) are the most valid and reliable behavioral pain scales for ICU patients unable to communicate.”
- “Coordination of Spontaneous Awakening Trials (SAT) with Spontaneous Breathing Trials (SBT) is associated with decreases in sedative use, delirium, time on mechanical ventilation, and ICU and hospital lengths of stay.”
- “Delirium monitoring and management is critically important because it is a strong risk factor for increased time on mechanical ventilation, length of ICU and hospital stay, cost of hospitalization, long-term cognitive impairment, and mortality.”
- “Early mobility is the only currently known intervention associated with a decrease in delirium duration. Physical therapy is safe and feasible in the ICU, even while on mechanical ventilation, renal replacement therapy, and/or circulatory support.” ■

Quick Wins in Quality: Hand Hygiene, Disinfection, Sepsis Reduction

Quality improvement professionals are reporting more “quick wins” in which a relatively simple change in processes and

procedures yields significant advances in patient care and safety. Germ-zapping robots and handwashing monitors can both be introduced

with minimal effort and bring great advances in quality of care.

Seeking quick wins is a good quality improvement strategy, says

Craig Clapper, PE, CMQ/OE, partner in transformational advisory services with Press Ganey, a quality improvement consulting company based in South Bend, IN.

“The complex systems in healthcare are made up of small things that work in concert, so it works to make improvements in those small ways and watch them build on one another to improve quality overall in what we see as much more complex systems,” Clapper says.

Many small improvements are the result of self-checking, a component of the Stop–Think–Act–Review (STAR) process for quality improvement, Clapper notes. People using STAR will pause often and especially at critical junctures to self-check, asking if they are prepared for upcoming tasks, assessing their work, and reviewing the results. Frequent use of this technique will reduce errors over time, Clapper says.

Healthcare organizations with employees who are more engaged with their work are more likely to self-check and reduce errors, he notes. *(Press Ganey’s recent report on workforce engagement found that higher engagement was associated with higher quality scores. See the sidebar on page 57 for more information.)*

“If everybody did that one-second pause 200 times a day, it would cut their harm rate in half,” Clapper says. “That’s a pretty good investment, a little more than three minutes a day, for such a drastic reduction in harm.”

Encourage Self-Checking

Healthcare organizations can facilitate such self-checking by making the environment more hospitable to it, Clapper says. Some

facilities, for example, will delineate an area around the automated medication dispensing machine as a “no interruption” zone or a “quiet zone” with signs, flashing lights, or different-colored tiles and walls. Employees are taught that anyone working in that area must not be disturbed because they are focusing on a critical function and need to concentrate on the STAR process, Clapper explains.

Clapper recalls another facility that was having a problem in their perioperative area in which people would hit the “door open” button and the wrong door would open, not the one they wanted. They mounted a set of shields that discouraged people from hitting one set of buttons if they were coming from a direction that indicated they probably wanted the other doors.

“That kind of fix is generally referred to as error-proofing, and I think we need to invest more in that simple kind of solution,” Clapper says.

Self-checking is among several strategies used to improve patient safety at Indiana University Health in Indianapolis. **Katherine Feley**, DNP, RN, CPPS, system director of patient safety, says repetition is a key to making such strategies work.

“Repetitive education on these methods is necessary to make them effective. Teaching people about it one time is not going to be enough,” Feley says.

“It also is important to recognize team members when these methods are used appropriately. One of our strategies is a Great Catch program in which we celebrate near misses, and another is a program in which we celebrate team members who displayed mindfulness or situational awareness related to safety culture.”

One example was a pharmacy

technician who used STAR to recognize that there was a problem with a prescription filled by the hospital’s automated dispensing machine. She called attention to the potential error, which resulted in a reprogramming of the dispensing system to avoid future errors.

Clapper says the focus on self-checking and smaller solutions is a good approach, even though so much of quality improvement seems to involve grand projects with big goals.

“I think we’ve invested too much in trying to re-educate the staff and write a new policy to solve every problem, when sometimes simple error-proofing will improve safety and quality of care,” Clapper says. “A good philosophy is fewer rules and more tools.”

Robots Zap Pathogens

That philosophy was used at White County Medical Center in Searcy, AR, to improve room cleanliness and reduce infection rates. The hospital already had low rates of hospital-acquired infections but was striving for zero, says **Meghann Holmes**, RN, infection preventionist.

Antibiotic-resistant superbugs also were a concern, so the hospital decided to supplement its normal room-cleaning and disinfection routine with machines that use ultraviolet light to kill pathogens on exposed surfaces. The hospital acquired the robots and added them to the cleaning protocol for its environmental services department.

The devices were an addition to the standard cleaning protocol rather than replacing any existing steps, Holmes explains.

The environmental services staff cleans the room as usual and then places the robot in the room to shine

ultraviolet light on all exposed areas as an extra disinfection measure. Each cycle takes about five minutes, and a typical room will require one cycle on either side of the bed and another in the bathroom.

“That’s going to kill anything that is left behind after the cleaning process. Any time you are wiping down a surface you might miss something, so this is another step that comes along and kills anything left behind,” Holmes says.

Significant Decrease in Infections

The robots at White County Medical Center use a high-intensity, pulsed xenon ultraviolet light that kills *Clostridioides difficile*, methicillin-resistant *Staphylococcus aureus* (MRSA), and vancomycin-resistant Enterococci, in addition to other common pathogens.

The hospital began with three robots in use on four units that were at higher risk of infection because of the volume and type of patients. It soon purchased another three devices, which are enough to cover all inpatient rooms and operating rooms in the 438-bed hospital.

Infections decreased 71% in the first year, with a related cost savings of almost \$250,000, Holmes says. Each disinfection unit costs about \$100,000 to purchase.

For the ORs, the devices are used once at the end of the day, after routine cleaning.

Using the robots adds about 15 minutes to the cleaning time for each room, although staff can still clean the bathroom while the device is disinfecting the rest of the room, and vice versa, Holmes notes.

“I was worried that our environmental services staff would

Press Ganey Finds Higher Engagement Tied to Better Outcomes

Having healthcare employees who are more engaged with their jobs leads to better quality scores, according to Press Ganey’s recent 2019 Strategic Insights white paper, “Accelerating Transformation: Translating Strategy into Action.”

The report compiles data on workforce engagement, the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS), and Leapfrog Hospital Safety Grades from 253 healthcare facilities. Press Ganey analysts looked for correlations between high or low employee engagement and scores that reflect patient safety and patient experiences.

The levels of employee engagement were determined with a survey. (*The report is available online at: <https://bit.ly/2CIrc0B>.*)

Press Ganey determined that “in 2018, substantially more organizations with a high percentage of highly engaged units earned the top Leapfrog Hospital Safety Grade compared to organizations with a low percentage of high-engaged units. The corollary is also true. Substantially more organizations with a small percentage of low-engaged units earned the top safety grade compared to organizations with a high percentage of low-engaged units.”

Of those facilities in which more than half of the work units have Tier 1 engagement, 54% earned a Leapfrog Hospital Safety Grade of “A.” The grade was earned by 25% in which fewer than one-quarter of the work units have that level of engagement. Forty-five percent of the facilities in which fewer than one-quarter of the work units have Tier 3 engagement earned Leapfrog’s “A.” ■

not be on board with that because it does add a little bit of time to their room turnover and like everyone else, they have a lot to do,” Holmes says. “But they absolutely love it. They feel good that they’re doing something extra with this technology. It boosts them to feel like they are contributing more and able to prevent infections by using these devices.”

Monitors Improve Hand Hygiene

Another quick win came from the use of technology that monitors

handwashing. Hospital Corporation of America (HCA), based in Nashville, TN, has implemented systems that use radio frequency identification technology to track whether employees are washing their hands between patient encounters.

Employees wear badges that can be detected by devices in patient care areas, and they are allotted a certain amount of time to clean their hands after entering, explains **Tammy F. Raz**, BSBA, BSHI, MHA, systems business analyst at HCA in Orlando, and administrator of the hand hygiene program.

The technology detects whether

the employee comes in close proximity with the handwashing station or hand sanitizer. For some patients, handwashing is required rather than using the sanitizer.

“When they exit the room, they also have a certain amount of time to clean their hands again by going to another handwashing or sanitizer station. We try to keep a very high compliance rate for our staff, and we find that in addition to the system keeping staff aware of the need for hand hygiene, we’re seeing a higher rate of family and visitors disinfecting their hands,” Raz says.

“They see the staff doing it often, and that establishes the idea that hand hygiene is important for everyone entering the room. That’s a huge win.”

The biggest hurdle has been educating employees on the expectations for handwashing when moving quickly from one room to another, Raz says.

“The employees sometimes get confused on the entry and exit requirements. You may have an exit wash for this room but then you’re immediately walking into the next room, so an entry wash is not necessary,” Raz explains.

“It can be hard for them to get that timing down so that they understand there is a time element that is involved in addition to entering and exiting the rooms. We address that with continuing education of staff and making ourselves accessible to answer questions.”

Checklist Reduces Sepsis

A checklist helped reduce infections at Spectrum Health facilities, says **Julie Bonewell**, RN, BSN, senior director of quality and improvement at the health system based in Grand Rapids, MI.

To prevent surgical site infections, the surgery team at Spectrum Health uses a checklist to make sure preventive interventions have been completed prior to surgery. The team reviewed the literature and completed PDSA (plan-do-study-act) cycles to identify the multiple opportunities throughout the course of care to prevent surgical site infections and included these interventions in the checklist, Bonewell explains.

“The prevention of surgical site infections is complex, necessitating multiple interventions while the patient goes through the surgery process, so the checklist helps assure all of these interventions are completed,” Bonewell says. “As a result, we have seen significant reductions in surgical site infections.”

To help prevent mortality from sepsis, clinicians use a checklist to ensure that all components of the sepsis treatment bundles have been completed within the three-hour and six-hour windows for care. The team also “swarms” around a patient identified as potentially having sepsis so that all team members are available to quickly assess and discuss whether this patient should be treated for sepsis

and to get the treatment initiated as quickly as possible, Bonewell says.

“When patients go to see their primary care physician, the medical assistants use standard work for rooming to assure that all necessary preventive tests, lab work, and screenings have been completed,” she says. “Part of this standard work is a report that quickly shows tests for which that patient is due. This standard work has resulted in higher compliance with preventive screening as well as better control of chronic diseases such as high blood pressure and diabetes.” ■

SOURCES

- **Julie Bonewell**, RN, BSN, Senior Director, Quality and Improvement, Spectrum Health, Grand Rapids, MI. Phone: (866) 989-7999. Email: julie.bonewell@spectrumhealth.org.
- **Craig Clapper**, PE, CMQ/OE, Partner, Transformational Advisory Services, Press Ganey, South Bend, IN. Phone: (800) 232-8032.
- **Katherine Feley**, DNP, RN, CPPS, System Director of Patient Safety, Indiana University Health, Indianapolis. Phone: (800) 248-1199.
- **Meghann Holmes**, RN, Infection Control Preventionist, White County Medical Center, Searcy, AR. Phone: (501) 268-6121.
- **Tammy F. Raz**, BSBA, BSHI, MHA, Systems Business Analyst, Hospital Corporation of America, Orlando, FL. Email: tammy.raz@hcahealthcare.com.

Net Promoter Scores Used to Address Patient Satisfaction, Quality

A healthcare organization is finding success with using a measure of customer satisfaction to drive quality improvement.

DispatchHealth, a company based in Denver that facilitates home delivery of healthcare services, performs well on its net promoter

score (NPS), which is calculated on a -100 to 100 scale and measures customers’ willingness to recommend the organization’s services. It can be

used to determine satisfaction and brand loyalty. The company has a 95 NPS, which is considered quite high.

Large companies like Apple often have an NPS around 70, and healthcare organizations typically score around 30, explains **Andrea Pearson**, chief marketing officer of DispatchHealth, which treats about 100,000 patients across the country.

“The net promoter score is a measure of whether we are really delivering quality care and creating a base of loyalty among the patients we treat,” Pearson says. “This is a measure of customer satisfaction and loyalty that any healthcare organization can use, and the net promoter score captures the opinions of patients in a way that at a lot of other measures don’t.”

The NPS is high for several reasons, she says. A holistic approach allows the company to assess the patient’s home life, considering social determinants of care, and customers benefit from being able to stay home when receiving care, Pearson says.

“We spend an average of 45 minutes in a person’s home, and that is about four times the average patient encounter in an emergency room or a clinic. We don’t set any expectations for our employees for how much time they should spend with a patient,” she says. “Our guidelines only say that they should spend as much time as they need to in order to address all the needs of that patient. Some of our visits can be two hours or longer. That is one reason our net promoter score has stayed at 95 or above over the last several years.”

Of course, DispatchHealth focuses on providing in-home care, and so it benefits from the goodwill of patients who would rather not leave home for medical care. But Pearson says other healthcare organizations can learn from how that identifies the issues important to patients.

Any healthcare organization might improve its NPS by responding more to the same sentiments that yield a high score for DispatchHealth, Pearson says.

“Technology allows us to take a lot of our capabilities as caregivers and move them back to people’s homes, where they are more comfortable, it’s less expensive, and they tend to have a much better outcome,” she says. “That is true particularly for an older patient with a complex health history.”

The NPS is the primary metric that the company communicates to staff, Pearson says.

“It is the one metric we communicate every day to our employees. Whether you work in revenue cycle management or you’re a nurse practitioner, you understand that we hold ourselves to a bar that is quite high in terms of delivering a great experience and providing something that will create loyalty over time,” Pearson says. “We use this as a touchstone to ask if we did the best for the patient today.” ■

SOURCE

- **Andrea Pearson**, Chief Marketing Officer, DispatchHealth, Denver. Phone: (720) 724-9923.

Leapfrog Group Finds Hospitals Implementing Safety Systems but Not Fully Utilizing

A majority of hospitals are meeting the standards for computerized physician order entry (CPOE) set by the Leapfrog Group, based in Washington, DC, according to a recent report from the group.

Sixty-five percent of hospitals in the survey met the Leapfrog CPOE standards, says **Erica Mobley**, director of operations with The Leapfrog Group.

The Leapfrog Group’s 2019 Medication Safety Report found that “Hospitals that fully met Leapfrog’s CPOE standard are more likely to be teaching than nonteaching (72% vs

62%) and more likely to be urban than rural (68% vs. 47%).” In addition, “Slightly less than half of all types of hospitals — urban, rural, teaching, and nonteaching — fully met Leapfrog’s Bar Code Medication Administration standard.” (*The report is available online at: <https://bit.ly/2TxlUKJ>.*)

The report looked at two measures for what hospitals are doing to prevent medication errors in CPOE. There is no good outcome measure for how frequently medication errors happen in a hospital, Mobley says, so the Leapfrog survey looks at the process measures.

“We ask hospitals to participate

in a simulation test to see how well the CPOE is working. The tool asks hospitals to input a set of dummy patients into their CPOE system, and then we give them a set of orders for those patients and we’re looking to see if that CPOE system is putting off the correct alerts for those patients,” Mobley explains. “If we put a pediatric patient in the system and then try to prescribe an adult dosage to that patient, we want to be sure their system is putting off an alert that this is probably the wrong dosage and urging the user to double-check before it goes to the pharmacy. Most hospitals



CONSULTING EDITOR

Patrice L. Spath

MA, RHIT

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

EDITORIAL BOARD

Kay Ball

RN, PhD, CNOR, FAAN

Professor of Nursing
Otterbein University
Westerville, OH

Claire M. Davis

RN, MHA, CPHQ, FNAHQ

Director of Quality
Middlesex Hospital
Middletown, CT

Susan Mellott

PhD, RN, CPHQ, FNAHQ

CEO/Healthcare Consultant
Mellott & Associates
Houston, TX

NURSE PLANNER

Jill Winkler

BSN, RN, MA-ODL

Quality Improvement Advisor
Proprietor, True North Lean
Consulting Group, PLLC
Durham, NC

spend millions of dollars implementing these systems, and this is the only way we know of to see if they are working as they should.”

About two-thirds of hospitals are entering at least 85% of inpatient orders through a CPOE system, and about 70% of the systems provide the proper alerts to potential medication errors, Mobley says.

“Those are good figures, but that still means there is a substantial

number of hospitals not receiving the proper alerts,” Mobley says. “There is a lot of customization that occurs with these systems, and this is a way to see if the system is working as it should or if more adjustments are needed.” ■

SOURCE

- Erica Mobley, Director of Operations, The Leapfrog Group, Washington, DC. Phone: (202) 292-6813.

CE QUESTIONS

- 1. According to Kristin Sandau, PhD, RN, why do some physicians overprescribe ECG monitoring?**
 - a. They often are under the impression that the monitoring means their patients receive more care from nurses.
 - b. They often believe it is required under the AHA practice standards.
 - c. They routinely order ECG monitoring for certain diagnoses regardless of the patient’s actual needs.
 - d. They are using order sets that are outdated and which automatically include ECG monitoring.
- 2. What does Steven Hanovich, MD, MS, say was a key concern when integrating the new ECG monitoring order set into the Allinas Health EHR system?**
 - a. Including a link to the AHA practice standards
 - b. Allowing physicians to opt out of the order set easily
 - c. Requiring a senior physician to approve deviations from the order set
 - d. Not adding too many clicks to the EHR process
- 3. What does Craig Clapper, PE, CMQ/OE, advocate as one approach to improving healthcare quality?**
 - a. “Fewer rules and more tools.”
 - b. “Fewer tools and more rules.”
 - c. “Less oversight and more trust.”
 - d. “Less trust and more oversight.”
- 4. According to Andrea Pearson, chief marketing officer of DispatchHealth in Denver, what is the average net promoter score of healthcare organizations?**
 - a. 30
 - b. 50
 - c. 70
 - d. 90

CE OBJECTIVES

Upon completion of this educational activity, participants should be able to:

1. Identify a particular clinical, legal, or educational issue related to quality improvement and performance outcomes.
2. Describe how clinical, legal, or educational issues related to quality improvement and performance outcomes affect nurses, healthcare workers, hospitals, or the healthcare industry in general.
3. Cite solutions to the problems associated with quality improvement and performance outcomes based on guidelines from relevant authorities and/or independent recommendations from clinicians at individual institutions.