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INSIDE

FEBRUARY 2019 Vol. 44, No. 2; p. 13-24

EMR Effect on Quality of Care Still a Concern, Can Be Addressed

The benefits of electronic medical records (EMRs) have been well established, and the digital tools continue to promote improvement as they are more widely incorporated into the healthcare system. But at the same time, EMRs bring drawbacks and challenges that frustrate clinicians and detract from what could be a more uniform improvement in care.

A recent survey conducted by Stanford Medicine and The Harris Poll found that although most physicians — a clear 63% — think EMRs have improved care, there still is a substantial physician population that doubts the overall value of the technology.

Forty percent of the physicians surveyed said there are more challenges with EMRs than benefits.

The survey also found that "62% of time devoted to each patient is being spent in the EMR." And 49% of office-based primary care physicians "think using an [EMR] actually detracts from their clinical effectiveness."

Seventy-one percent of surveyed physicians say EMRs greatly contribute to physician burnout, and 59% say EMRs need "a complete overhaul." Forty-four percent say the primary value of EMRs is data storage, with only 8% saying the primary value is clinically related.

> SEVENTY-ONE PERCENT OF SURVEYED PHYSICIANS SAY ELECTRONIC MEDICAL RECORDS GREATLY CONTRIBUTE TO PHYSICIAN BURNOUT, AND 59% SAY THEY NEED "A COMPLETE OVERHAUL."

Almost three-fourths (72%) think improving EMRs' user interfaces should be the first move to improving their usefulness. Sixty-seven percent say that "solving interoperability deficiencies should be the top priority for EMRs in the next decade, and 43% want improved predictive analytics to support disease diagnosis,

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.

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***Hospital Peer Review*® (ISSN 0149-2632) is published monthly by Relias Learning, 111 Corning Road, Suite 250, Cary, NC 27518-9238. Periodicals postage paid at Cary, NC, and additional mailing offices. POSTMASTER: Send address changes to *Hospital Peer Review*, Relias Learning, 111 Corning Road, Suite 250, Cary, NC 27518-9238.**

GST registration number R128870672.

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

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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.

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prevention, and population health management," the report says. *(The report is available online at: https://stan.md/2ARDL83.)*

Key Driver for Burnout

Research by The Doctors Company, a medical liability insurer based in Napa, CA, reveals similar concerns. A recent nationwide survey of the insurer's members revealed that EMRs are causing high levels of frustration for physicians and are a key contributor to burnout, says chairman and CEO **Richard E. Anderson**, MD, FACP.

"Additionally, more than half of the 3,400 doctors we surveyed thought EMRs had a negative impact on their relationship with patients," Anderson says. "Even more said the technology hinders efficiency and productivity."

The problems manifest in the day-to-day operations of a hospital or physician practice in two main ways, Anderson says. "The first is that they require hours of duplicative and often unnecessary data input, most often by the physician. The second is that the technology itself has failed us; the systems are non-intuitive, vary widely, and don't connect to one another," he says. "EMRs increase costs and reduce productivity in the majority of practices that use them."

A common complaint is that EMRs have become the required interface for anything a physician wishes to do, Anderson says. Instead of a being a tool that the doctor can choose to employ in the most effective way for a particular patient and situation, the EMR demands that the doctor input data and navigate through layers of questions before being allowed to order tests, for instance.

"Mandatory conversations with the computer have devalued the doctor-patient relationship. This is enormously frustrating to physicians seeking to provide quality care," Anderson says "When a technology impedes, rather than facilitates, patient care, it's a terrible outcome for all involved — particularly the patient."

The good news is that there is a growing awareness of this problem, and practitioners are starting to speak out, Anderson says. The president of the American Medical Association (AMA) recently said that EMRs are to blame for physician burnout, calling it "abuse." EMRs are turning doctors into data entry clerks, AMA president **Barbara McAneny**, MD, said at the AMA's Interim Meeting recently in National Harbor, MD.

For physicians, every hour spent directly caring for patients results in two hours of EMR data entry and related tasks, she said, citing a 2016 study. *(That study is available online at: https://bit.ly/2MBRXpG.)* McAneny called much of the current EMR technology "dysfunctional" because it does not provide doctors with the information needed to effectively care for patients.

Gaps in Organization

About half of practicing physicians are facing burnout, McAneny said, and the primary cause is the EMR.

"Doctors are spending excessive time on data entry, contributing to physician burnout, with implications for quality of care," McAneny told the meeting attendees. "It grew out of the billing software, so it doesn't give us the decision support or the information we need. The vendors of these systems like to paint doctors as Luddites who don't like technology.

They need to understand that we love technology — we just want technology that works."

AMA CEO James Madara, MD, also told the attendees that EMRs suffer from "vast structural gaps (in) achieving true data liquidity and interoperability" and "gaps in how clinical data is organized at the point of care." He said the lack of reliable and well-organized data leaves physicians "driving a car with a windshield covered in snow."

AMA is addressing the problem with a new digital platform, the Integrated Health Model Initiative. It is designed to address some of the problems related to EMRs with a common data model. *(More information on the initiative is available online at: https://ama-ihmi.org/.)*

Hospitals should take active steps to mitigate these negative issues associated with EMRs, Anderson says. The goal should be to ensure EMRs serve their intended purpose: improving patient care, he says.

"A lot of money has been invested in EMRs. There is a growing recognition of the problems, but recognition is not sufficient. We need to see constructive plans for bringing about resolution," Anderson says. "Hospitals have an important role to play in this conversation. They owe it to their physicians — and their patients — to address the problems electronic health records create in the hospital setting."

Informatics Can Be Useful

The nearly universal adoption of EMRs in a decade has transformed healthcare, but getting the most benefit from them — and avoiding some of the potential problems — requires dedicated professionals in informatics, says **Douglas Fridsma**, MD, PhD, FACP, FACMI, president and CEO of the American Medical Informatics Association in Bethesda, MD.

"We see it in the United States and in other countries adopting EMRs. They adopt the technology, but they don't see the benefit because the workforce isn't capable of turning all that information into actionable items," Fridsma says. "It's like giving everyone a stethoscope and not teaching anyone cardiology. They have this tool, but they don't know how to interpret the signals and information they're getting from it to turn it into actionable items."

The wealth of data available from EMRs means "the future is here, but it's not evenly distributed," Fridsma says. The most successful healthcare organizations look at data not as an operational asset but as a strategic asset, he explains.

"It's not just about running this data operation. It's about asking the right questions of the data, taking the answers from the analytics, and applying it back into the healthcare process," he says. "Use that information to guide where the organization is going and how to take care of patients. That requires understanding that the data inherent in the electronic record is a strategic resource that can be used to drive your organization forward, rather than just numbers that tell you where you've been."

Hospital Improves EMR

Provider burnout is a primary concern with EMRs, but so is provider complacency, says **Shannon Sims**, MD, PhD, chief analytics officer with Vizient, a healthcare performance improvement company based in Irving, TX. He previously worked in similar roles with hospitals.

Burnout is largely related to the amount of time it takes to properly document patient care in the EMR, he says.

"That's both the number of clicks, the user interface that they don't like as much as more traditional ways, and also the feeling that the burden of a lot of tasks has shifted from administrative staff to the physicians and other providers," he says.

Sims worked with a large hospital that wanted to address those concerns. Emergency physicians had complained that they were spending an excessive amount of time documenting care and otherwise interacting with the EMR beyond their normal shift times, so the hospital sent data analysts to determine how much that actually happened and find ways to reduce the EMR time.

"They developed a metric for a proxy of the qualitative sense of how much time physicians spent with the EMR and deployed a host of interventions. Some of it was very workflow-focused, reducing clicks to minimize interruptions to the physicians providing care," Sims explains.

"Some of it was training-based as well, making sure the physicians and the rest of the team understood how to best use the system," he adds. "They were able to see substantive reductions in the off-hours documentation, and surveys showed an increase in provider satisfaction."

Doctors Can Grow Complacent

Provider complacency involves the tendency of some physicians to rely too heavily on the EMR to

guide the course of treatment. As much as physicians resist the idea of "cookbook medicine" in which they must adhere to rigid protocols, some physicians let their guard down and put too much trust in the EMR to steer them to the right clinical pathways, Sims says.

"Attending physicians in particular are concerned about how some physicians assume the EMR is paying attention to detail and doing all the heavy thinking, catching potential mistakes. It's lulling the care team into a sense that 'the computer is doing it for me, so I don't have to pay attention to drug interactions,' for example," he says.

"They worry that some doctors think the order sets or evidence-based protocols take care of all the contingencies, so they don't have to worry about it. I hear this concern a lot, particularly about the impact on trainees, from medical students to residents and fellows, [how EMRs are] diminishing the amount of thought that goes into patient care."

Sims notes that the problems with EMRs are not vendor-specific. Any brand of EMR can introduce these problems to a hospital, with the likelihood and significance of the challenges coming mostly from how the system is designed and implemented, he says.

No Single Solution

Once a hospital recognizes EMR-related problems, there are different ways to address them, he says.

"There is no one-size-fits-all solution. Different organizations tackle it in different ways and with different prioritization," he says.

"Some organizations make it the top concern and address it accordingly, while others make it a priority but not at the top of the heap. We've found that those that put it at the top of the heap are having a higher dissatisfaction with the EMR, and that is causing high turnover, which is very costly for the organization — sometimes hundreds of thousands of dollars for a physician when you count the lost productivity and the cost of finding a replacement."

EMR efficiency often must be addressed with a mix of strategies to respond to subjective, qualitative concerns by clinicians — how they feel and what impact they think the EMR is having — and with a more data-driven approach that uses metrics to document improvement.

"We've found that the highest performing organizations address both of those pieces of the puzzle, typically by installing physician-led governance over the EMR and creating teams to address specific parts of the workflow," Sims says. "That will mean teams for order sets, clinical decision support, speech recognition, and others."

(For an example of how one hospital addressed a drop in performance, see the sidebar on page 17.)

Indiana University (IU) Health in Indianapolis is in the process of improving an EMR that had grown organically over 15 years but had given rise to issues that threatened quality of care. IU Health is Indiana's largest healthcare system, with 18 facilities and almost 33,000 employees.

Seung Park, MD, senior vice president and chief health information officer with IU Health, joined the organization in the spring of 2017 and began improving the IU EMR system. A key issue to address was the average transaction response time (ATRT).

In 2017, that figure was a maximum of 0.72 seconds, and the percentage of transactions greater than five seconds was 1.7%. The national average for transactions greater than five seconds is 0.5%.

"As IU Health acquired new facilities or as our facilities expanded, we threw more and more on to that EMR, which is a common story. By the time I arrived, our EMR was the slowest performing Cerner EMR in the world," he says.

"We had 10 times the number of alerts as the national average, 10 times the nursing paths, and 10 times the number of required data entry fields in forms like the standard nursing patient intake assessment for inpatient care."

Park found that part of the problem was how over the years IU Health had completely customized the product's standard inpatient nursing format. Park says that created an untenable situation with a "slow, customized EMR that couldn't even bear its own weight. It's no wonder that our clinicians were dissatisfied with that EMR."

The first step in improving the EMR was to declare a moratorium on further changes to the system until the issue could be studied and solutions developed.

An analysis revealed how far IU Health's EMR metrics were out of line with the averages of nationwide users. It also revealed that another part of the issue was that the health system had not properly updated the EMR product.

"We were using the EMR as if Cerner had not updated the system since the 1990s, when we first adopted it," Park says. "We systematically began broadcasting the message that we were going to move to a single, standard,

modernized EMR and that we were not going to allow for individual physician or nurse customization of the EMR anymore. We had to first break down what was wrong before we could build what is right."

That message was received more positively by nurses and physicians than Park expected. Working with an EMR under extensive reconstruction creates difficulty in the daily care of patients, but for the most part, clinicians accepted the challenges with good cheer, he says.

"Every end user of a system believes that he or she knows what he or she needs, whereas in actuality those things are wants and not needs," Park says.

"User feedback is very important, but at the same time, you have to do the calculus to determine if this is an actual need or a want. If I do this to the EMR, does this apply to and benefit everyone or only this one individual? If I make this change now it will be give me a short-term gain, but what is the long-term gain or loss?"

Other challenges involved things outside of IU Health's control. If the EMR's manufacturer-provided server is down, clinicians blame the EMR itself when the problem actually lies with the network structure supporting the in-house EMR.

IU Health reverted to using the EMR's standard format for inpatient nursing solutions, which helped decrease the ATRT from 2.39 seconds to 0.4 seconds. The health system also removed 90% of the alerts in the EMR, another aid in reducing the transaction time.

All of the metrics that were so off track in 2017 are now at or near national averages, Park says. Physician burnout measures are down by about 30%, and Park says he is looking forward to further reductions as the EMR improvements take hold. IU Health physicians currently score just under 2.0 in the Physician Well-Being Index, a measure of physician satisfaction and likelihood of burnout. The national average is 1.77, and IU Health physicians scored 1.99 recently, down from 2.27 previously.

"We are continuing to put into place a culture that accepts a standardized EMR because that is the only way we are going to be fast and the only way we are going to get to the streamlined future that our clinicians so desperately need and deserve," Park says.

"This takes discipline and backbone, the willingness to tell the right story over and over. You have to be willing to partner and be humble if you're ever going to get people to buy into the idea that this is the right thing to do." ■

Health System Tackles Drop in Productivity After EMR Introduction

A healthcare system with facilities in California, Texas, and New Mexico successfully addressed the drop in productivity and clinician satisfaction that can come with the introduction of a new EMR.

An investigation revealed that the new EMR was only part of the problem, says **Shannon Sims**, MD, PhD, chief analytics officer with Vizient, a healthcare performance improvement company based in Irving, TX. The EMR shook things up enough that other long-simmering problems came to the surface.

The upset from the new EMR actually created an opportunity to improve multiple processes in the health system, Sims says.

Clinical utilization was not standardized, and clinicians were charting in multiple locations. The health system used the new EMR to help standardize care, eliminating at least 50 clicks and 12 to 18 minutes per patient chart.

In the end, the health system reduced door-to-physician time up to 50% and length of stay up to 20% in half of the system's facilities.

(The case study is featured in a Vizient white paper, available online at: https://bit.ly/2H0xTPV.)

SOURCES

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- **Seung Park**, MD, Senior Vice President and Chief Health Information Officer, Indiana University Health, Indianapolis. Email: spark4@iuhealth.org.
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'Just Culture' Can Be Applied to Physician Peer Review

Healthcare organizations are finding that the "just culture" concept can be applied to the physician peer review process. The belief is that individuals should not be blamed for performance errors when the real fault may lie with flawed organizational processes.

Just culture is a philosophy centered on the idea that accountability should not always be about the individual at the center of the medical error or other issue under investigation because organizational failures may be the true root cause.

One research paper described it this way: "A just culture balances the need for an open and honest reporting environment with the end of a quality learning environment and culture. While the organization has a duty and responsibility to employees (and ultimately to patients), all employees are held responsible for the quality of their choices. Just culture requires a change in focus from errors and outcomes to system design and management of the behavioral choices of all employees." *(The paper is available online at: https://bit.ly/2efYVB7.)*

Necessary to Focus on Quality

A just-culture approach is necessary if the overall purpose of the peer review process is to improve quality of care and safety rather than placing blame, says **Mary Ellen Glasgow**, PhD, RN, ANEF, FAAN, dean and professor of nursing at Duquesne University in Pittsburgh.

"You need to have a culture that is open to improving quality and not one of blame if there is an error," Glasgow says. "A just culture is one in which people are encouraged to report errors for the patient's sake, one where people are comfortable enough to say 'we need to do this better' or 'we had a near mistake because there's distraction in this area.' Everyone can report a safety violation — the janitor, the CEO, the nurse, physician — because your rank doesn't matter."

The peer review process will benefit from members who have a clear understanding of and commitment to just culture, Glasgow says. Errors should be assessed with an eye toward detecting process and structural failings that allowed them to happen, such as medication labels that were too similar, as well as at-risk behavior and reckless behavior from individuals.

"At-risk behavior can include physicians or nurses who think they are doing the right thing by not following the rules. An example is how hospitals are putting emphasis now on letting patients sleep in the ICU, which is a big movement now and based on legitimate goals," Glasgow says. "But then you have a clinician who doesn't check the patient's identification band because it might wake the patient. That is at-risk behavior in which the person was well-intended, but they misunderstood the rules."

That would require remediation, after which a change in behavior should be expected.

And then there's reckless behavior, such as willful disregard of rules, bullying, and intoxication on duty. Reckless behavior requires discipline even with a just culture.

"People think of just culture as being easy on misbehavior, but it isn't. It's about analyzing different errors and safety issues, putting them in categories based on the context," Glasgow says. "When a medical professional is participating in peer review and has a good understanding of just culture, not supporting hierarchies and being true to the just-culture principles, it should make them more effective in ensuring patients receive the highest quality of care."

Discipline Still Required

Applying just culture is not always easy because it requires individuals to overcome the natural desire to blame someone for an error, Glasgow says. In many cases, the just-culture approach will require acknowledging that the physician in question did commit an error, but that the error was made possible or even encouraged by a poorly designed system. In such cases, the peer review committee should take that into account when determining the appropriate response.

But on the other hand, the just-culture concept also calls for discipline of reckless behavior without regard to the organizational hierarchy and the individual's status. That might be the stated goal of all peer review, but just culture requires that it be carried out uniformly, Glasgow notes.

"You need senior executive buy-in for this concept to work because if the person is reckless — whether it's a surgeon bringing in millions

of dollars a year or a janitor — they both need discipline. In the past, you would see different punishments based on someone's rank or value to the system," Glasgow says. "That can't be allowed to happen in a just culture, and that kind of change will require buy-in from the highest levels of the organization."

Banner Health Adopts Just Culture

Incorporating just culture into the peer review process is still a relatively new concept even among healthcare organizations that adopted it more broadly, Glasgow says.

Banner Health is forging ahead with the idea. The just-culture approach is an important part of the health system's peer review process, says **Michael O'Connor**, MD, chief medical officer of risk management with Banner Health, based in Phoenix. With more than 50,000 employees, it is one of the largest healthcare systems in the country.

Banner Health formed a peer review council in 2009 to improve the process and standardize some elements across the organization, including the scoring of physicians. At the same time, Banner Health was working to adopt just culture.

"The peer review council was looking for ways to improve the quality of peer review and the accuracy of the assessment, and at the same time recognize the role and impact of systems of care on events," O'Connor says. "We worked to incorporate just culture into the event investigation, the assessment of the event, why it happened, and then looking at how we would attribute that to choice, systems design, or both."

Just Culture Training for Peer Reviewers

The council first settled on the definition of just culture it would use and designed the peer review workflow, which was worked into a software program that walks the reviewer through the algorithms in the decision-making process.

Peer review committee members at Banner Health now must complete training in just-culture methodology and use it when scoring cases. They focus on these key requirements for a just-culture environment:

- create a learning environment;
- create an open and fair environment;
- design safe systems;
- manage behavior choices.

(Banner Health described the process in more detail with a post about peer review in an ambulatory care environment for the American Association for Physician Leadership. That article is available online at: https://bit.ly/2S7cLIR.)

The initial work was done at the facility level and then the final design was approved by the peer review council. Once the council approved the final version, the plan was implemented throughout Banner Health in 2014.

The health system provided physician and leader training in just culture, and physician reviewers were trained in how to use the software for peer review.

New System Takes Longer

O'Connor and the other council members learned that the new system requires more time than the previous peer review processes used in Banner Health facilities. They determined that some issues coming to the peer review process for individual reviews were rule-based indicators, such as compliance with core measures, or rate indicators, such as deviation from standard metrics. Rather than taking those issues through the full peer review process, the council found better avenues for addressing some of those issues.

"We're still refining our rules indicators and rate indicators so that we only have the most important events come through the full just-culture review process, which helps us gain the most from that process," O'Connor says. "Standardizing the scoring system has been a big challenge because with 20 hospitals and each one having an independent medical staff, establishing uniformity in something as close to the medical staff as peer review was the most difficult part of what we did."

Banner Health also uses clinical consensus groups that define processes. When the peer review process identifies process and workflow problems, they are sent to those groups for review and improvement. Issues also can be sent to the operations teams that work within the health system. Informatics also is sometimes called on for assistance.

Physicians Welcome Fair Approach

O'Connor cautions that any significant change to the peer review process will rattle physicians. Start with explaining why the change is necessary, he says, and acknowledge that the just-culture concept will require additional training. Also note that the process will be more

time-consuming, but the tradeoff is that the reviews will be much more meaningful, he says.

There was initial skepticism from Banner Health physicians when the plan was first introduced, but the medical staff embraced the concepts of just culture once the new process was in place and they saw how it worked.

"Peer review traditionally has been a blame game, and this was a process where we really looked at the entire event and addressed accountability in a different way, recognizing that errors are not a choice and can happen to the best of us," O'Connor says. "Our systems and processes can influence the outcomes as much as the physicians themselves. It was seen as a very fair way to approach these reviews." ■

SOURCES

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Hospital Work Environments Tied to Quality and Ratings

The working environment of nurses appears to have a correlation with patient safety and quality, with recent research finding that scores improve when hospitals improve working conditions.

The research was led by **Linda H. Aiken**, PhD, FAAN, FRCN, the Claire M. Fagin Leadership Professor of Nursing, professor of sociology, and director of the Center for Health Outcomes and Policy Research at the University of Pennsylvania in Philadelphia. She and her colleagues studied 535 hospitals in four states between 2005 and 2016.

They determined that patient safety "remains a serious concern." In the study period, 21% of study hospitals showed improvements of more than 10% in work environment scores, and 7% had worse scores.

Although the percentage of hospitals improving their working environments was small, those facilities also saw improvements in patient safety indicators as rated by nurses and patients.

The number of patients rating their hospital favorably improved by 11%, and the number saying they would definitely recommend the hospital improved by 8%. The number of nurses reporting excellent quality of care rose by 15%, and those giving the hospital a favorable grade on patient safety increased 15%.

In hospitals where work environments deteriorated, the number of nurses giving a favorable grade on patient safety fell by 19%. *(An abstract of the study is available online at: https://bit.ly/2Gbq6hY.)*

Little Progress Since IOM Report

The study results suggest that patient safety and the hospital work environment are intertwined, Aiken says. The research is significant because of the scale, involving 53,000 nurses and 800,000 patients, she says.

"This has never been done in the safety world, looking at a host of hospitals over time to see how they have changed since the Institute of Medicine's [IOM's] 1999 *To Err is Human* report, and whether safety improved at the hospitals," Aiken says. "The IOM made the point way back in 1999 that nursing was foundational to patient safety, meaning that if nursing itself was not safe, it would be almost impossible to implement any meaningful patient safety interventions over a dysfunctional nursing framework."

IOM published a series of guides on improving safety after the 1999 report, and one was "Keeping Patients Safe: Transforming the Work Environment of Nurses," which "lays out guidelines for improving patient safety by changing nurses' working conditions and demands." *(The guide is available online at: https://bit.ly/2CK84zv.)*

"There is a consensus in the healthcare community that safety has not improved as much or as rapidly as we hoped, and it is not distributed evenly across institutions. We're not where we thought we might be after two decades of focusing on patient safety," Aiken says. "Seventy-one percent have not changed at all, and 7% decreased, when comparing

each hospital to their own baselines. We found exactly what the IOM predicted, that hospitals that improved their own work environments made much greater gains in quality and patient safety than hospitals that had not changed at all or that 7% that slipped down."

In hospitals that improved their work environments, safety metrics improved by 15%. Those hospitals saw significant gains in nurse satisfaction and patient satisfaction scores.

"This means that the priorities we set and pursued in the first 20 years were not exactly the right priorities," Aiken says.

Nurses Key to Improvement

Hospitals have made some improvements in identifying interventions and showed that they worked to prevent harm to patients. The evolution of surgical checklists and the use of bundled care for the prevention of central line infections are examples, she notes.

"But it turns out that for that bundled care to work as intended, there has to be a fidelity to the implementation of the bundles of care at a 95% reliability level," Aiken says.

"In the work environments we have at hospitals, nothing can be done at a 95% reliability level. Therein lies the problem of why we haven't made more progress in patient safety."

The work environment for nurses is critical for two reasons, Aiken says.

First, nurses are there at the bedside with closer contact to patients than anyone else. If there aren't enough nurses, the whole surveillance system that allows early intervention for patients' issues falls apart, she says.

The second reason is that there is "as much chaos in hospitals as there was 20 years ago," Aiken says.

"There is research showing that every clinical nurse at the bedside is interrupted on average once an hour by an operational failure that in and of itself seems inconsequential, but makes the nurses stop mid-task," Aiken says.

"That task might be preparing medications, giving medications, changing sterile dressings. The failure that interrupts them might be the lack of proper dosages of a medication, broken equipment, the blood bank being closed at night. The operational failures are creating a safety hazard and making the clinical care very inefficient."

Make Nursing a Safety Concern

Improving the nursing work environment is typically not considered a safety intervention, Aiken says.

"Until we define the adequacy of nursing as a critical safety intervention, patient safety cannot improve. [Nurses are] somebody else's business," Aiken says.

"They don't fall in the sweet spot of quality improvement professionals, so they are not addressed as a safety intervention, when in fact they are key to making any other interventions effective."

Quality improvement professionals should work to address the work environment issues that prevent nurses from improving safety, Aiken says, and that will mean motivating management to address the operational failures that are well known to nurses on the floor.

She also encourages quality improvement leaders to consider how nurses and physicians are involved in committees that make any types of decisions for the hospital.

"They are now missing in many of those committees. You need to ask if there are enough nurses, in particular, involved in all these quality and safety committees that are giving us feedback and driving our strategic plan for reducing harm," Aiken says.

"Try to increase the staff engagement and diminish the idea that hospitals are hierarchical institutions where administrators are the most important and the people providing patient care are the least important."

Little Confidence in Management

Seventy-five percent of the nurses in the study said they had no confidence that management will respond to the work environment issues they cited as influential on patient care.

"There's a disconnect between the nurses at the bedside who see what's wrong and the management who can fix it," Aiken says.

"Nurses and doctors are doing workarounds all the time, like hoarding pillows because there are never enough pillows to keep patients from getting pressure ulcers and positioning them after surgery. The workarounds enable management and support services in not doing their work, but it's not the way to provide good, quality care," she adds.

Another continuing problem is how nurses continue feeling personally blamed for the failings of the healthcare system.

Fifty percent of nurses say they feel mistakes are held against them, indicating that little progress has been made on the implementation of Just Culture or any other movement away from personal blame since the 1999 IOM report, Aiken says.

The likelihood of personal blame means clinicians still are afraid to report errors or concerns about the work environment, she says.

"Clearly, the reported errors are only the tip of the iceberg, and we have this developing syndrome of the secondary victim, meaning the clinician who has some role in the error. Because there is no safe way to report the error and learn from the experience, this increases the burnout and turnover at the bedside," Aiken says.

"The loss of these experienced healthcare professionals is expensive and takes some of the best people away from patient care, continuing a cycle in which patient safety is degraded." ■

SOURCE

- **Linda H. Aiken**, PhD, FAAN, FRCN, The Claire M. Fagin Leadership Professor of Nursing, Professor of Sociology, Director, Center for Health Outcomes and Policy Research, University of Pennsylvania, Philadelphia. Phone: (215) 898-9759. Email: laiken@nursing.upenn.edu.

Patient-Measured Outcomes Could Be Better, Address Burnout

Hospitals and health systems could more effectively address quality improvement by narrowing the metrics used to those that are meaningful and easy to understand, experts say. A more prudent selection of quality measures could improve physician compliance and success with improvement goals, while the use of data analytics can give an additional boost.

With an estimated 36,000 quality measures foisted on healthcare providers throughout the industry, it can be hard for physicians and other clinicians to focus on what matters most, says **Jay LaBine**, MD, chief medical officer with naviHealth, a consulting firm in Nashville, TN. LaBine recently worked for Spectrum Health as senior vice president and chief medical officer for Priority Health.

No one hospital or health system will use all of those measures, of course, but the volume of metrics and the inconsistency across healthcare institutions can thwart quality improvement efforts, he says. Physicians are increasingly concerned about the excessive complexity and administrative burden of quality measures, LaBine says.

"Physicians can't understand all these measures. They're extremely complicated, and there's a disconnect between physician understanding and what quality really is," LaBine says.

"The measures are very detailed and prescriptive, which breeds concerns over whether they are really quality concerns or something else."

The Bundled Payments for Care Improvement Advanced (BPCI Advanced) program from the Centers for Medicare & Medicaid Services (CMS) has many physicians concerned about the required metrics and how they will be affected, LaBine says. *(More information on BPCI Advanced is available on the CMS website at: https://bit.ly/2mcB3me.)*

"We definitely want quality measures for something like the bundled payment program, but the real question is how prepared CMS is to administer the quality measures. They're hearing from a lot of providers with concerns about how difficult this is going to be for them to get specificity and understand how they are doing so they can improve if they are not measuring up," LaBine says. "Is this going to be an administrative checkbox or a real, meaningful practice pattern change?"

LaBine cites the advance care planning measure, which encourages conversations with patients about advance care directives for patients in the bundled care program. But how that is measured is not well understood. And will it be a meaningful conversation, or just a perfunctory task so the checkbox can be marked?

The goal should be to measure the quality of care provided to the patient, LaBine says. That might seem obvious, but to physicians some of the quality measures can be perceived as far afield from what actually matters to patient outcomes, he says.

Tying patient outcomes to

compensation often is intended to convince physicians that the organization is focused on patient care rather than a bureaucratic or arbitrary measure, he says.

"But how do you tie those quality measures to compensation when they are so complicated that the physician has to pay a quality subject matter expert to explain to the physician exactly what they are doing and how to measure it?" LaBine says.

"It would be easier if you said 'we're going to measure these three or four quality measures that are straightforward, meaningful, and easy to understand.' Physicians are trying to make sense of these measures tied to their compensation, but they're struggling to understand them while still dealing with the challenges of medicine."

Many physicians are encouraging the use of patient-reported outcomes as the predominant measure of quality, LaBine says. ■

SOURCE

- **Jay LaBine**, MD, Chief Medical Officer, naviHealth, Nashville, TN. Phone: (615) 577-1900.

Healthy Nevada Project Delivers Genetic Results to State Residents

The Healthy Nevada Project is moving forward with its population health and personalized medicine initiatives, delivering genetic results to thousands of state residents.

The ambitious project is starting to deliver results with great impact to both individuals and the state health system, says **Anthony D. Slonim**, MD, DrPH, FACHE, president and CEO of Renown Health, a healthcare network serving Nevada and northeast California. He also is president of the Renown Institute of Health Innovation in Reno, NV.

Nevada started the unique, community-based population health study in 2016, incorporating clinical, genetic, and environmental data to develop personalized care for state residents. The first phase involved 10,000 people, and phase two addressed genomic sequencing for an additional 40,000 Nevadans. *(For HPR's earlier report on the project, go to: https://bit.ly/2FwQr9R.)*

"We are now providing clinical results for Tier 1 genetic conditions, which include familiar hypercholesterolemia, BRCA 1 and 2, and Lynch syndrome, which contributes to colon and endometrial cancer," Slonim says. "We present those results with genetic counseling and clinical algorithms to follow to either address their risks by changing behaviors or through screening and early diagnosis."

The rates for hypercholesterolemia are in line with expectations from large-scale studies so far, he notes, but the Healthy Nevada Project is watching for any deviations that could signal a particular need in the state.

"At the individual level, we are changing people's lives, so it is important to provide the right kind of counseling and resources as we deliver these test results," Slonim says. "But at the same time, we are considering what the results mean on a macro level. Does our community have more women with the BRCA genes than other communities, and if so, does that mean we need to allocate resources in order to better serve those residents?"

One of the participants with a genetic marker for familial hypercholesterolemia is 29 years old, Slonim notes. Her father died of a stroke and her grandfather died of a cardiac event, but she did not know she had the gene.

As a result of the testing, her physician put her on a higher-than-normal dosage of cholesterol medication, and her child will be tested also.

"This an example of how these results can be life-changing. She can alter her diet and lifestyle, get the right medical care, and hopefully avoid dying from a cardiac event in her mid-forties," Slonim says. ■

SOURCE

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CE QUESTIONS

1. **According to a recent survey conducted by Stanford Medicine and The Harris Poll, what do 72% of surveyed physicians say should be the first move to improving the usefulness of EMRs?**
   a. Improving EMRs' user interfaces
   b. Making EMRs more widely available
   c. Providing scribes to enter data
   d. Changing to another EMR vendor

2. **Provider burnout is a primary concern with EMRs, but what does Shannon Sims, MD, PhD, cite as another serious concern?**
   a. Complacency
   b. Intentional misuse
   c. Incomplete data entry
   d. Vendor-related conflict of interest

3. **What is one effect of incorporating Just Culture into peer review, according to Michael O'Connor, MD?**
   a. The peer review process is shorter.
   b. The peer review process is longer.
   c. More people are involved in peer review.
   d. Fewer people are involved in peer review.

4. **In the research led by Linda H. Aiken, PhD, FAAN, FRCN, what percentage of hospitals showed improvements in work environment scores?**
   a. 11%
   b. 21%
   c. 31%
   d. 41%

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.