

# THE Physicians Report

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## Closing the Loop on **DIAGNOSIS ERRORS**



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Safe Practices for  
Diagnostic Results

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# Closing the Loop: An Opportunity to Reduce Diagnostic Error

Diagnostic errors are the most common, most catastrophic, and most costly of all medical errors. Every year in the United States, 12 million adults are impacted in outpatient settings alone by delayed or inaccurate diagnoses. Approximately 250,000 harmful diagnostic errors are associated with hospitalized patients annually, and estimates of premature deaths in all settings are in excess of 300,000. Diagnostic error is the number-one cause of malpractice claims and is estimated to add \$100 billion in unnecessary costs to the healthcare system each year. And if these statistics aren't enough to motivate addressing the problem, consider this: an inaccurate or delayed diagnosis is likely to lead to treatments or additional procedures that will be wasteful or harmful, while the real underlying disease progresses unchecked.

Improving diagnostic quality is not simple. Diagnosis, by its very nature, involves uncertainty. And there can be great heterogeneity in how different patients with the same problems present. Even pertaining to a single patient, presentation can vary over the course of the problem and lead to diagnostic pitfalls.

Research into malpractice cases involving serious harm find that on average, there are more than three contributing factors to each case. With no consensus standards on measuring diagnostic error—or even on documenting diagnostic-safety events—prioritizing and addressing sources of error locally can be challenging.

However, as the National Academy of Medicine asserts, “Improving the diagnostic process is not only

possible, but it also represents a moral, professional, and public-health imperative.” And despite the complexities, there are immediate opportunities for improvement. For example, many diagnostic errors are caused by failure or delays in closing the loop (CTL) on specific processes, such as test ordering and result interpretation followed by patient communication. Similar issues exist with initiating, completing, and communicating the results of specialty referrals.

CTL has been studied and well-described in the literature. There are a variety of reasons that test results do not receive timely and effective follow-up, including transitions from inpatient to outpatient status, secondary or incidental findings that are not sufficiently prominent in reports or appreciated by the ordering clinician, limitations on the designation of critical value and its reporting imperatives, split order result availability (especially associated with “send-outs”), and failure to incorporate findings of specialty physicians into primary-care records.

In this issue of *The Physicians Report*, we'll take a closer look at this important opportunity to make a difference. In the area of diagnostic quality, there's not much low-hanging fruit, but closing the loop is as close to that as possible. Readers are encouraged to seize that opportunity—their patients will be thankful for it.



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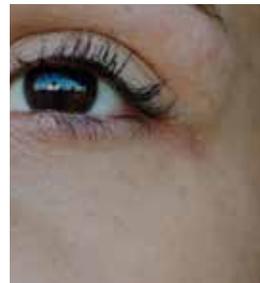
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# CLOSING THE LOOP

## Safe Practices for Diagnostic Results

By Patricia Giuffrida, MSN, RN, CPHIMS,  
and Robert C. Giannini, BS, NHA, CHTS—IM/CP

**In 2015, Improving Diagnosis in Health noted that 5% of U.S. adults seeking outpatient care experienced a diagnostic error.<sup>1</sup>**

A review of inpatient event reports indicates that diagnostic errors account for 6–17% of reported adverse events,<sup>1</sup> and failure to respond to new, actionable information is a frequent cause of diagnostic error in both the outpatient and inpatient settings.

Closing the loop means that all mechanisms are in place to ensure that any patient data and information that may require action are delivered and communicated to the right individuals, at the right time, through the right mode, in order to allow for interpretation, critical review, reconciliation, initiation of action, acknowledgement, and appropriate documentation.<sup>2</sup> Failure to close the loop on diagnostic test results is one example of a failure to respond to actionable information.



Consider the following examples.

### **DELAYED DIAGNOSIS**

*A patient was seen for evaluation of testicular pain from possible testicular torsion. An ultrasound was performed. The initial verbal report stated that no torsion was seen. One week later, the final report noted a “suspicious mass,” with recommendations for the patient to follow up with a urologist. The report was signed by both the nurse practitioner and the physician.*

*Unfortunately, the patient was never informed, and returned seven months later complaining again of pain. A large testicular mass was discovered on physical examination.*



“Any failure to close these loops holds the potential for patient harm through delayed, missed, or incorrect diagnoses.”



This example shows multiple points of failure. First, the verbal report had not provided all the information. Second, despite the fact that the written report was signed, its recommendations were not acknowledged. Finally, no actions were taken—and as a result, the patient was not made aware of the “suspicious mass” for seven months.

Failing to close the loop on diagnostic testing is not a new problem. While the introduction of health information technology (IT) was thought to be a ready remedy, the issue persists. The question facing healthcare providers today is, how can they leverage health

IT to close these loops? (See “Closing the Loop: Considerations for How EHRs Can Help” on page 20.)

Failures to close the loop are multifactorial and range from a test not being performed at all, to a test not performed as ordered, to the results not being returned to the clinician, to the clinician failing to acknowledge those results. Each of these chains of events creates a loop with the potential for a break, with the patient being central to all the loops involving diagnostic testing (e.g., provider to provider, provider to patient or caregiver, facility to provider). Any failure to close these loops holds the potential for patient harm through delayed, missed, or incorrect diagnoses.

### MISSED DIAGNOSIS

*A routine mammography was ordered. The patient failed to have the test performed, but continued with her routine visits.*

*Five years later, another routine mammogram was ordered for the patient. The results indicated a breast lump with infiltrating ductal carcinoma. Unfortunately, a chart review uncovered a note from five years earlier, stating, “Mammo pending; no result.” This indicates the patient was never followed up with, and thus the breast lump went undetected for five years.*

In 2017, the Emergency Care Research Institute (ECRI) Partnership for Health IT Patient Safety convened the Closing the Loop Workgroup, chaired by Dr. Christoph U. Lehman. The workgroup was comprised of health IT vendors, clinicians, healthcare organizations, malpractices insurers, patient advocates, and representatives from professional organizations and societies, and held a goal to develop health IT safe practices for closing the loop to mitigate delayed, missed, and incorrect diagnoses.

ECRI and the Institute for Safe Medication Practices’ PSO analyst reviewed more than 800 relevant events from the PSO database and performed an additional review of more than 80 medical malpractice closed-claims reports. The analysis revealed that failure to close the loop on diagnostic testing is primarily seen with six types of information (Table 1). The most common failures for safety events occurred in laboratory testing (61%), followed by events related to imaging (12%). Data from closed medical malpractice claims suggest that imaging was the information most likely to not be communicated (at 36%), followed by laboratory testing (23%) and pathology (18%).

*(Continued on page 6)*

(Safe Practices, continued from page 5)

**Table 1. Prevalence of Reported Safety Events and Closed Malpractice Claims**

AREA FOR FAILURE TO CLOSE THE LOOP	EVENTS (%) (N = 848)	MALPRACTICE CLOSED CLAIMS (%) (N = 82)
Laboratory testing	61	23
Imaging	12	36
Other diagnostics	5	8
Pathology	2	18
Treatment	2	5
Other	18	11

**Sources:** Data were presented at the Closing the Loop Workgroup, July 11, 2017.

**Note:** Event reports in the ECRI and Institute for Safe Medication Practices PSO database disproportionately represent the acute-care setting, as opposed to the ambulatory-care setting. Malpractice closed claims were primarily from the ambulatory setting.

A critical result is defined as a result from a test that must be reported immediately to a care provider, because it may require urgent therapeutic action. (See “Critical Results Testing” on page 34.) Using this definition, we also grouped information that was not communicated by criticality. Both for events and malpractice claims, significantly abnormal noncritical results were more likely to not be communicated (see Table 2).

**Table 2. Events and Claims by Criticality**

RESULTS	EVENTS (%) (N = 848)	CLAIMS (%) (N = 82)
Critical value	28	0
Noncritical value but significantly abnormal result	55	84
Critical value with test not specified	5	0
Other	12	16

Most failures to close the loop had multiple targets for notification. In reported safety events, staff were the most common target of communication (at 65%), followed by physicians (62%). However, for claims, the most common target was the physician (89%), followed by the patient (71%) and staff (46%).

Not surprisingly, only 19% of reported events resulted in a delay in treatment or diagnosis, while 96% of malpractice claims included a claim of delay in diagnosis or treatment. In the case of events, this delay was triggered mostly by failure to report or communicate (80%) and lag in reporting or awareness (19%). For claims, the most common reason was that a provider acknowledged information and failed to follow up (39%), followed by failure to report or communicate (30%), delay in reporting (21%), and unclear/ambiguous communication (16%).

## DIAGNOSIS NOT COMMUNICATED

A patient admitted with shortness of breath was diagnosed with pneumonia. The radiology study identified a lung lesion; however, these findings were not communicated to the patient. There was no documentation of a follow-up or workup related to the lung lesion. The patient was admitted to the hospital six months later, and was diagnosed with an adenocarcinoma.

Eliminating diagnostic error requires closing the loop on diagnostic results—adding a plethora of technology alerts and reminders to an already dysfunctional process for result management will only obfuscate matters.

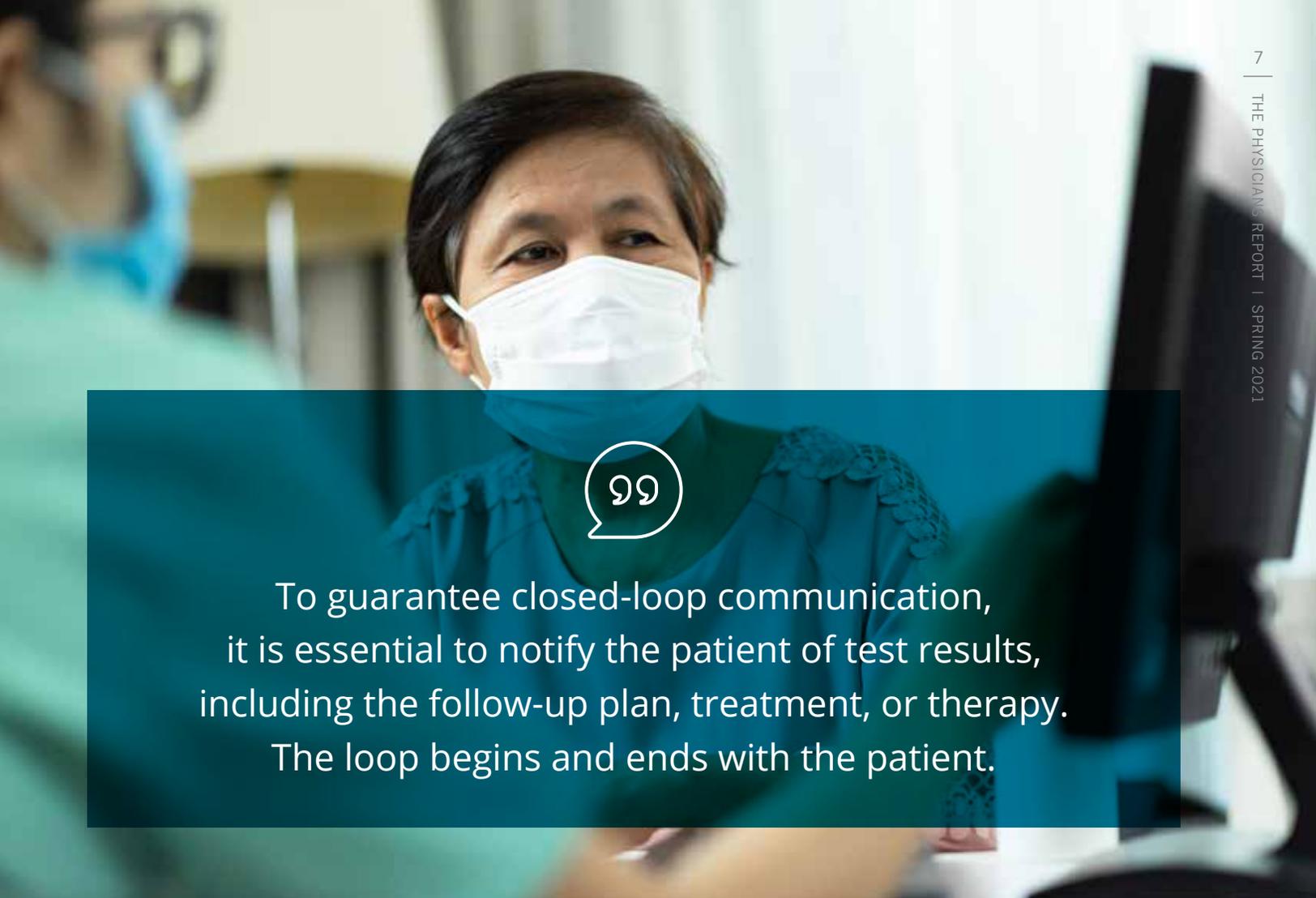
The Closing the Loop Workgroup offers the following three recommendations for communicating, tracking, and linking, along with references and tools to facilitate their implementation:

## SAFE-PRACTICE RECOMMENDATIONS

- Develop and apply information technology (IT) solutions to **communicate** the right information (including data needed for interpretation) to the right people, at the right time, in the right format
- Implement IT solutions to **track** key areas
- Use health IT to **link** and acknowledge the review of information and documentation of the action taken

## Communicate

The recommendation to communicate encourages stakeholders to design, test, deploy, and implement health IT solutions that improve communication pathways and make closing the loop a seamless and elegant process, with all diagnostic tests communicated to the provider, the pharmacy, and the patient in a timely manner.



To guarantee closed-loop communication, it is essential to notify the patient of test results, including the follow-up plan, treatment, or therapy. The loop begins and ends with the patient.

The lack of standardization in healthcare creates a dangerous inconsistency across systems. One basic requirement for effective communication is the use of standard nomenclature and structured data (e.g., SNOMED CT, LOINC) to improve the overall efficiency and usability of transmitted test results for reporting diagnoses. Today, providers work in multiple electronic health records (EHRs) as they move from the inpatient, ambulatory-care, and surgical centers. Information contained in records in these various settings is not often kept in the same location, formatted the same, or readily retrievable; this compromises safety, timely information gathering, and readiness to action. Well thought-out and agreed-upon standards can help reduce the cognitive workload of physicians.

To ensure successful communication, functionality must be available to generate reminders and disperse information as needed. This functionality may require providers and provider organizations to reevaluate their systems to ensure that all systems are working as intended. EHRs and clinical workflows must align to ensure that work is being performed as intended. Adopting and implementing standard nomenclature and terminology, display icons, and reporting criteria—including the timing and results priority for reporting findings—will make the process of closing the loop more efficient and effective. Finally, to guarantee closed-loop communication, it is essential to notify the patient of test results, including the follow-up plan, treatment, or therapy. The loop begins and ends with the patient.

### Track

It is essential to implement health IT solutions to track key areas in the results-management process. Providers, healthcare organizations, and leadership all need to know when a loop remains open. Accurate tracking and monitoring of diagnostic results—including occurrence, transmission of information, acknowledgment, documentation, and responses—are essential to identify closed loops.

The safe-practice recommendation suggests that tracking and monitoring of test results is critical to identify interruptions and potential failure points in the process, including the ability to react to and remedy failures to close the loop. Results that do not reach the intended recipient, or that are not reviewed or acted upon,

*(Continued on page 28)*

# Overcoming Systemic Challenges to Reduce Diagnostic Errors



**Medical errors are a leading cause of death in the United States, causing preventable harm to around 400,000 Americans annually, at a cost of approximately \$20 billion per year.**

In "Preventing Medical Injury," published in the *Quality Review Bulletin*, researchers define four types of medical errors: diagnostic errors, including missed or delayed diagnosis; treatment errors, which include medication mistakes; preventative errors, or the failure to provide protective monitoring or care; and other errors, which include communication failures.

As part of its efforts to support higher quality and safety standards in healthcare, the Washington State Hospital Association (WSHA) performs ongoing work to discover the root causes of diagnostic errors, which may occur in up to 15% of medical diagnoses, according to Johns Hopkins Medicine. When the causes of diagnostic error are examined, some clear patterns emerge, says Trish Anderson, WSHA's senior director of safety and quality.

"Some of the many causes of diagnostic error that we've been able to identify throughout healthcare settings are episodic care and limitations to clinical assessment, which affect subsequent decision-making," says Anderson. "Additionally, there can be a lack of time for sufficient communication between patients and providers and between clinicians." By addressing these core contributors to diagnostic error, organizations can make progress toward closing the loop.



## CHALLENGE: COMMUNICATION

Miscommunication between providers is a leading cause of diagnostic errors, particularly during shift changes when caregivers hand off medical information about patients to other providers. According to Stanford Medicine research, shorter shifts for medical residents are increasing such handoffs, along with the risk for preventable errors.

“Communication is where it really falls apart,” says Ian Doten, MD, a Seattle-based emergency-department physician and Medical Director at InSytu Advanced Healthcare Simulation.

“You can have a spotless process with a beautiful checklist, but are you communicating well with the nurse or with the patient in terms of what needs to be done next?”

Replacing face-to-face communication between providers and staff with digital data stored in electronic health records (EHRs) won’t solve systemic communication problems, notes Doten, who previously served as Chief of Emergency Medicine at Swedish Medical Center in Seattle. “I think electronic health records make some communication easier, but sometimes it’s not effective because the signal-to-noise ratio is off; the piece of information that I need from the patient’s medical history is in the EHR, but so is all of this additional information. If I’m in the emergency department with a patient and there are two pieces of medical information I need to make a decision, that information can easily get buried in the data.”

Reducing communication lapses in medical settings remains a persistent challenge, in part because communication styles and preferences vary from person to person, says Ben Wandtke, MD, BMS, Vice Chair, Quality and Safety, and Chief of Diagnostic Imaging at FF Thompson Health in Canandaigua, New York. In his study “Reducing Delay in Diagnosis: Multistage Recommendation Tracking,” published in the *American Journal of Roentgenology*, multiple communication interventions were assessed to determine the most effective ways to communicate with patients and providers about recommended follow-up care. “When we worked with patients, we found that they have variable preferences in how they want to be communicated with, so there’s not one communication method that works for everyone,” he says. Rather than relying on a



“Communication is where it really falls apart. You can have a spotless process with a beautiful checklist, but are you communicating well with the nurse or with the patient in terms of what needs to be done next?”

IAN DOTEN, MD, PHYSICIAN  
AND MEDICAL DIRECTOR,  
INSYTU ADVANCED  
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SIMULATION, SEATTLE

single communication touchpoint—for example, communicating with patients about follow-up care via an electronic patient portal—Wandtke found that establishing a series of different types of communication interventions—including letters, phone calls, and reminders from primary-care providers—was most effective for closing the loop.

## A SYSTEMIC SOLUTION FOR COMMUNICATION LAPSES

Improving team communication through the creation of small work groups, teaching teamwork behaviors and skills, and developing communication habits for teams can help reduce communication-related errors,

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*(Overcoming Systemic Challenges, continued from page 9)*

according to research supported by the U.S. Army. In their study of emergency-department malpractice incidents at eight hospitals, published in the *Annals of Emergency Medicine*, researchers judged more than half of the deaths or permanent injuries to be preventable through improved teamwork. The study found an average of 8.8 teamwork failures per care episode.

Collaborative goal-setting is another strategy that's been shown to improve communication between patients and providers and reduce the likelihood of inaccurately reported medical information. In this model, patients work with their providers to monitor and report their progress toward personal health goals.

### **CHALLENGE: CARE TRANSITIONS**

The risk for medical errors doesn't end when patients leave the hospital or clinic. In fact, more than half of medical errors take place outside of a clinical setting. Research shows that the risk for medical error increases significantly after hospital discharge or episodic care: a study published in the *Annals of Internal Medicine* found that more than 50% of hospital patients experienced a clinically significant medication error within 30 days of discharge.

Disjointed or nonexistent communication between the many providers involved in

a patient's hospital care contribute to the risk for medical error, particularly diagnostic errors and treatment errors, during care transitions, says Wandtke. "There may be two or three hospitalists making recommendations for follow-up care, but only one puts in discharge instructions for the patient," he says. "So there are inherent risks in the transition of care from hospital care to outpatient care, and hospital offices are not equipped with resources to provide appropriate safety nets to engage a high-reliability approach to their healthcare."

### **A SYSTEMIC SOLUTION FOR TRANSITIONS**

Patient-centered approaches to error reduction are the key to reducing medical errors, according to a study published in *Australian Prescriber*. Actively involving the patient in discharge planning and double-checking prescription-medication instructions after each episode of care can reduce the risk of medication errors and adverse drug events. "Our health system needs to keep an eye on these patients," notes Wandtke. "It is really a chain of communication, and it can break at any point in the process."

### **CHALLENGE: ELECTRONIC HEALTH RECORDS**

Electronic health records (EHRs) can support more accurate medical diagnoses, create efficiencies, and

improve communication. But while information technology may support patient safety in some instances, it has also been shown to contribute to medical errors. According to research published in the *Journal of the American Medical Informatics Association (JAMIA)*, healthcare information technology can have unintended consequences that contribute to diagnostic errors, from disrupting existing communication processes, to offering flawed decision support, to overburdening providers with tiring data-entry responsibilities.

"Electronic health records were built for billing, not for patient care," says Doten. "The challenge is designing tools that provide meaningful, real-time information. With healthcare, especially in the emergency room with a patient in cardiac arrest, a lot of the meaningful communication is in real time."

While EHRs can support early diagnosis by flagging certain patients for recommended cancer screenings, other patients are easily missed. "EHRs have been successful at identifying patients for breast-cancer screening and colon-cancer screening, because it's very easy to find patients in the system who are the right age and gender for screening," says Wandtke. "For lung cancer, it hasn't been as easy, because it's harder to identify a patient's smoking history

in an EHR. As a result, there has been slow uptake and low participation [in lung-cancer screening] without adequate tools in the EHR. We know that about 5% of eligible patients are receiving their screening for lung cancer, and that is concerning.”

### A SYSTEMIC SOLUTION FOR EHRS

The *JAMA* researchers focus their discussion on latent or silent medical errors that result from a mismatch between the function of the information-technology system and the day-to-day demands of healthcare work. This mismatch contributes to two main categories of errors that organizations must address to effectively improve quality and safety: errors in the process of entering and retrieving information, and errors in the communication and coordination processes the system is designed to support. Information-technology systems must address these two main categories of errors to facilitate safer care.

Involving the EHR’s end users—doctors, nurses, and other key personnel—in the system’s design and implementation can facilitate a better match between the system and the needs of its users. “As medicine gets more complex, we need to make sure it works for the end user,” says Doten. “The people closest to the work should design the work. You can set goals as an organization, but what’s meaningful is how you actually execute them when you get down to the doctors and nurses.”

### CHALLENGE: COVID-19

The COVID-19 pandemic is likely to increase rates of diagnostic errors for several reasons, according to 2020 research from the Society of Hospital Medicine. Early in the pandemic, rapidly evolving diagnostic information for COVID-19 made missed or delayed diagnosis more likely. Situational factors including staffing shortages, staff

*(Continued on page 38)*

# Resources, education, and tools for closing the loop

## NATIONAL ORGANIZATIONS

### Agency for Healthcare Research and Quality (AHRQ)

The federal agency leading nationwide efforts to improve diagnostic safety, the AHRQ offers a Diagnostic Safety and Quality Toolkit and measures state performance on quality and safety metrics in its State Snapshots.

### American College of Radiology Commission on Quality and Safety

The Commission on Quality and Safety provides oversight and management for all radiology quality and safety programs and initiatives of the ACR.

### Child Health Patient Safety Organization

The only patient-safety organization dedicated to children’s hospitals that is recognized by the AHRQ.

### Emergency Medical Error Reduction Group (EMERG)

Part of the non-profit Center for Leadership Innovation and Research in EMS, EMERG promotes continuous improvement within the field of emergency medicine.

### Institute for Healthcare Improvement (IHI)

Created as part of the National Demonstration Project on Quality Improvement in Health Care, the IHI offers education and resources on reducing medical errors, including its Triple Aim framework for optimizing health-system performance.

### Public Health Accreditation Board

A national non-profit accreditation body dedicated to improving quality, safety, and performance among tribal, state, local, and territorial public health departments.

### Surgical Outcomes & Quality Improvement Center (SOQIC)

Created to drive safety and quality research and develop improvement strategies for surgical care across the U.S.

### The Joint Commission

The nation’s oldest and largest standards-setting and accrediting body in healthcare, the Joint Commission offers patient-safety education and resources.

## ARTICLES AND TOOLS

Denver Health Medical Center. *Improving Patient Safety Through Provider Communication Strategy Enhancements Toolkit.*

AAP News. “Improve Patient Handoffs to Prevent Medical Errors, Reduce Malpractice Risk.”

EHRIntelligence. “Reducing Medical Errors with Improved Communication, EHR Use.”

Pocket Guide: TeamSTEPPS. Agency for Healthcare Research and Quality. “Team Strategies & Tools to Enhance Performance and Patient Safety.”

HealthIT.gov. “Improved Diagnostics and Patient Outcomes.” U.S. Department of Health and Human Services.

# When Everything Is Done Right, Yet Stroke Diagnosis Is Missed

You could do everything right.

You could make a judgment that isn't questioned by your peers.

You could meet the standard of care.

But the patient could still be harmed—and then you could be sued.

## Having strong backup support can make or break the outcome.

That's what happened to Dr. Dalvi, a Seattle radiologist. And what happened to his patient, Allison Carter, baffled the many medical providers she encountered in October 2014.

In the following case, the names of people and facilities have been modified for privacy protection. Consider how each component affected the diagnostic process and the eventual outcome.

### Puzzling Pain

At the time, Carter was a 26-year-old assembly mechanic in manufacturing at Boeing. Her health odyssey began when she

her head hurt so badly. Then she couldn't speak clearly for two minutes. 911 was called immediately, but her speech was normal by the time the paramedics arrived. Carter, who had a previous history of anxiety, stated that she must have panicked. She was transported to a local hospital.

### No Signs of Stroke

The doctor who evaluated Carter at the hospital suspected dissection and/or stroke, so he initiated an MRI stroke protocol, which is a diagnostic imaging order set. The set was read by Dr. Dalvi. Of the 1,600 images generated, Dr. Dalvi found no signs of stroke and concluded there was no

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## Carter returned to the local hospital the next morning, after waking up unable to speak.

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experienced neck pain for several days, followed by a headache for 24 hours. On October 12, she went to the urgent-care clinic and was diagnosed with sinusitis and discharged.

But the headache continued for three more days. In fact, it was severe enough to keep her awake at night. On October 15, she visited her primary-care physician. The doctor ordered a CT to rule out a hemorrhage, which was performed later that day at a local hospital. The physician who interpreted the CT saw no acute disease or source at the root of Carter's problems.

Carter's headache continued for six more days. On October 21, she saw a chiropractor near her home. She told him she had sharp, shooting pains in her neck when she moved her head, and that her primary-care physician had told her that her headache was probably coming from her neck.

Based on her symptoms, the chiropractor diagnosed her with a cervicogenic headache.

He performed a diversified-technique adjustment to her cervical spine. When Carter sat up, she started crying because

dissection present. Based on Dr. Dalvi's findings, the doctor prescribed a migraine cocktail, and Carter was discharged.

Carter returned to the local hospital the next morning, after waking up unable to speak. The doctor who evaluated her discussed her condition with a hospital neurologist, who agreed to see her for an outpatient evaluation.

In the meantime, Carter's primary-care physician consulted with the neurologist at the local hospital about Carter's condition. Carter met with the neurologist on October 24 for an urgent neurological evaluation. She now also had weakness and numbness on the left side of her face and in her left leg. He noted that "although symptoms are suggestive of a cortical process, such as a brainstem stroke, her MRI brain stroke protocol was unremarkable."

He later testified that he'd reviewed the actual imaging read by Dr. Dalvi in detail, and not just Dr. Dalvi's report of the same. He testified that he agreed with the report and that he felt there was no evidence of dissection or stroke on the imaging. Based on his review of the imaging and his exam, he ruled out dissection and stroke.

*(Continued on page 14)*



“The lesson is, even when you do everything right, you can still get sued—but having a strong supportive team makes the difference.”

LAUREN HALEY, CLAIMS MANAGER,  
PHYSICIANS INSURANCE



*(When Everything Is Done Right, continued from page 13)*

### **Mental-illness Diagnosis**

Later that day, Carter went to the emergency department at a Seattle tertiary-care hospital. She told medical professionals there that she had fallen to the ground after her visit to the neurologist. A neurology consult was ordered, and neurologists there also suspected dissection, but ruled it out because it wasn't found on the previous radiology reads. Doctors discussed the possibility of anxiety affecting her presentation of symptoms. She was discharged with a diagnosis of a mental-health condition.

### **Rapid Decline**

In the evening of October 26, while watching TV at home, Carter started drooling, lost bladder control, and became unresponsive for several minutes. Her husband took her to the emergency department at the local hospital. There was no available on-call neurologist at that time, so she was transferred via ambulance to a Seattle hospital. A repeat head CT was ordered prior to transfer.

The remote night-read radiologist found “no acute or active intracranial process” and “no change” compared to the October 15 CT. The CT was subsequently read by Dr. Dalvi's partner,

who agreed with the night-read and also found “no acute intracranial process.”

Carter was admitted to the Seattle hospital in the early morning of October 27. Later that afternoon, while still in the hospital, Carter was suddenly unable to speak or swallow. She could move her left extremities but nothing on her right side.

She had another CT in the middle of the night, and her symptoms continued to wax and wane. After the CT was read in the early morning hours, the radiologist reported to her doctor “a critical result,” namely, there were bilateral vertebral artery dissections/occlusions in the distal ends at the V-4 segments, as well as a complete occlusion of the basilar artery.

At 6 a.m, Carter was intubated and Code Stroke was initiated. An MRI showed an acute infarct of the pons. The on-call endovascular neurosurgeon decided to perform a cerebral angiogram with acute stroke intervention. Catheter angiography revealed dissection of the bilateral vertebral arteries and occlusive thrombus in the basilar artery. The surgeon removed the blood clot from the basilar artery, with some difficulty.



## Slow Recovery

Following surgery, Carter developed acute respiratory failure and remained in a coma. On October 30, a neurologist noted an improving exam but gave her a poor prognosis. She was taken off the ventilator on November 15, then was discharged to a skilled-nursing facility on December 2 and transferred to inpatient rehab on February 10. She remained there until March 3, when she was finally discharged home. She received rehab services at home until switching to outpatient therapy in April.

She plateaued with occupational and physical therapy in 2016. She now walks slowly with a walker or four-point cane, and has a speech impediment. She was unable to return to work at Boeing. In 2018, she gave birth to her first child, a healthy girl. Her mother and sister help her with housework and childcare, while her husband works.

## Lawsuits Filed

Carter sued three hospitals and seven different medical providers, alleging medical negligence and loss of consortium claims against each defendant, including allegations that Dr. Dalvi breached the standard of care by failing to identify dissections.

At the outset of the case, all of the defendants and their attorneys planned to work as a team against the claims. The plaintiff voluntarily dismissed the cases against the emergency-room doctors. The rest of the defendants settled—except Dr. Dalvi, leaving him as the only remaining defendant.

Lauren Haley, Claims Manager at Physicians Insurance, who worked on Dr. Dalvi's case, had to decide whether she and Dr. Dalvi would settle as well, or take their chances at trial.

"Of course, when all the other defendants settle, you have to consider doing the same," Haley says. "Sometimes it does make sense. But we don't take a seven-figure settlement lightly."

Once Dr. Dalvi's defense team got feedback from other experts, they knew his actions were defensible. "He did everything right," Haley says. "Three different hospitals and seven different doctors didn't catch it. The reality is, her presentation was atypical, and despite everyone's best efforts, the medical professionals were unable to identify the root of the problem. Unfortunately, this sometimes happens."

Still, it was a risky stance. According to Dr. Dalvi's defense counsel, Miranda Aye, the plaintiffs' legal representation and expert witnesses were very strong. Additionally, "the plaintiff was very sympathetic at trial," Aye says. "She was young, with a new baby, and she had worked so hard to recover."

The plaintiffs' attorneys tried to argue, using expert testimony, that Dr. Dalvi should have recommended additional imaging. However, defense experts did not identify any findings of dissection on the stroke protocol and found that the standard of care didn't call for additional imaging.

## Strong Support Is Key

The jury agreed with Dr. Dalvi's defense, and he won the case.

"The lesson is, even when you do everything right, you can still get sued—but having a strong supportive team makes the difference," Haley says.

And if you do get sued, Aye says, trust your defense team. "Understandably, it's hard for a doctor to be in the role of 'patient' in the hands of other professionals," she says. "They're not used to that. But working together as a team is the best way to help us build the strongest defense possible."

Being sued is always devastating to a doctor, Haley notes. "They're being told someone suffered because of what they did or didn't do," she says. "It leaves a scar." As evidenced by Dr. Dalvi messaging both Haley and Aye on the one-year anniversary of the verdict to thank them again, it sticks with you—even when it ends as well as it could have. [PR](#)



**Miranda Aye, JD,**  
Partner, Johnson  
Graffe Keay,  
Moniz & Wick



**Lauren Haley, JD,**  
Claims Manager,  
Physicians Insurance

# Advancing Communication in a Growing Market

## Idaho Urologic Institute

**With clinics in Boise, Nampa, and Meridian, Idaho Urologic Institute (IUI) serves one of the country's fastest-growing populations.**

According to the latest U.S. Census, the Boise metropolitan region is the eighth fastest-growing area in the country. The influx of new patients makes effective communication an evolving challenge, says Gregory Feltenberger, Ph.D., IUI's chief executive officer.

"Our region is experiencing rapid growth, with about 150 people moving here each day," he says. "The majority of them are over 50, and we don't know what kind of care they had previously—each one is like a brand-new patient in our system."

Communicating across disciplines and locations is critical to IUI's success, because its staff of 14 dedicated providers cares for

men, women, and children at three clinics and collaborates with more than 20 surgeons of varying specialties at IUI's ambulatory surgical center in Meridian. Since taking the helm seven years ago, Feltenberger has implemented continual communication improvements to keep up with the region's dynamic needs. "Communication is a forever project, and it is consistently the biggest area of focus for improvement and change," he says.

Here, Feltenberger highlights some key communication initiatives that have allowed IUI to provide world-class care for its growing community.



**IDAHO UROLOGIC INSTITUTE PROVIDES COORDINATED UROLOGIC CARE FOR MEN, WOMEN, AND CHILDREN, FROM DIAGNOSIS TO TREATMENT TO RECOVERY. HOW DOES THIS MODEL CREATE EFFICIENCIES FOR PATIENTS AND PROVIDERS?**

We're a lower-cost provider of high-quality care. Our services generally cost 50 to 80 percent less than if the patient were to get the exact same treatment in the hospital. We have created an environment where

providers can easily communicate with one another. Our radiologists are onsite doing their reads and collaborating with physicians, which is far more streamlined than what you might find elsewhere. We've got a medical director who oversees the surgical center and the IUI ancillary space, one of the physicians oversees another clinical quality zone, and another physician is our lab director. As a result, we're far more agile and communication is far more efficient—and this shows in our statistics and outcomes. Our 2020 infection rate was 1 percent, whereas typical rates in hospitals are in the 2 to 4 percent range.

**HOW DO YOU ENSURE THAT NEW HIRES THRIVE IN THIS HIGHLY COMMUNICATIVE, EFFICIENT ENVIRONMENT?**

With new hires, we're looking for a great fit with our professional family. So much of their success is based on fit. I hold a 30-day meet-and-greet with all new employees where I ask them, what's going well? What do you need? What's not going well?

Because our physicians are owners, they are truly invested in the success of the organization, their relationship with their patients, and their connection to the organization.

**HOW HAVE YOU WORKED TO IMPROVE COMMUNICATION BETWEEN PROVIDERS, STAFF, AND IUI LEADERSHIP?**

We have implemented increased rounding among our staff and improved communication with our leadership team, from a weekly meeting with physician and staff leaders to a monthly meeting with our board. Additionally, over the past two years we have implemented a transition to a new electronic health records (EHR) system to facilitate improved communication throughout the organization.

**"Communication is a forever project, and it is consistently the biggest area of focus for improvement and change."**

GREGORY FELTENBERGER, PH.D, CEO, IDAHO UROLOGIC INSTITUTE



*(Continued on page 18)*

For patients with advanced prostate cancer, IUI's linear accelerator provides more precise treatment with less damage to surrounding tissues.



## FAST FACTS

**ESTABLISHED:** 2005

**LOCATIONS:** 3

**PROVIDERS:** 9 physicians and 5 PAs (across three clinic locations)

**MEMBER SINCE:** 2010

*(Member Spotlight, continued from page 17)*

### WHAT FACTORS DID YOU CONSIDER BEFORE DECIDING TO TRANSITION TO A NEW EHR SYSTEM IN 2020?

When I first arrived at IUI, they were using an EHR system that was a complete suite of modules for billing, practice management, and scheduling. Our practice was one of the first to use the system, so we were instrumental in helping its developers by sharing our comments and feedback. But we found that that company wasn't as responsive as we'd hoped, and that the system was based on antiquated programming language. We saw the need to move to a cloud-based system for a higher level of security, where we would no longer need to house our servers onsite. We rolled out the new system in spring of 2020 during COVID-19, which posed an additional challenge.

### HOW DID IMPLEMENTING A NEW SYSTEM DURING THE PANDEMIC IMPACT YOUR EHR TRANSITION?

The transition was planned for more than

a year, but of course we did not anticipate the COVID-19 pandemic. Pre-pandemic, we had planned to transition to the new system in April and May, and temporarily lower our patient volumes during the rollout. We planned to be back at normal volumes within a month, but then COVID hit and naturally decreased our volumes for a longer period. We were changing a lot of our workflows in response to COVID just as everyone was learning the new EHR system, which was a challenge. Hindsight is 20/20, and had we known about COVID's impact, we might have delayed the launch. But by the time the pandemic hit, we had been planning the transition for 18 months, so that train had left the station, so to speak.

However, with lower patient volumes during the spring, we were able to involve more clinical staff in the transition, which was important to the project's success. We shifted the bulk of our physician-assistant visits to physicians and

involved our PAs and scribes in designing templates within the EHR to streamline patient visits. It is an ongoing process; we're still optimizing our templates based on our physicians' preferences.

### HOW DID YOU KEEP CLINICAL STAFF INVOLVED AND UP-TO-DATE DURING THIS TRANSITION?

Going into this transition, I knew that I wanted to have clinical staff be closely involved. When you have an IT professional who spends most of their time writing code and then has to come out as part of an EHR implementation team and train physicians on clinical workflows, there's a huge gap in communication, understanding, and frame of reference. I didn't want IT professionals determining our clinical workflows in the EHR system without appreciating what real clinical workflows should look like.

It made all the difference in the world to have clinical staff become super-users

# EDUCATION

of our new system—the individuals who can take the lead on the implementation from the clinical side. Our medical director, Dr. Todd Waldmann, became a super-user, as did one of our more experienced PAs, Missy McClenahan. I recommend for others that someone with a clinical background take a leadership role in the entire process, from planning to implementation. If I ever go through another EHR transition, that is definitely something I'll do again.

## WHAT OUTCOMES CAN YOU SHARE?

Our transition is ongoing, because we are still refining our new system and running it in parallel with our legacy system, which was part of our plan. We are still using the billing module in our legacy system, and plan to transition completely to the new system by the end of this calendar year.

But anecdotally, physicians have shared that the new system, in combination with the use of medical scribes by some of our physicians, has created significant efficiencies. Physicians were spending two to three hours at night inputting patient data into our old EHR, and that burden has been dramatically reduced. We have created the capacity for two additional patient visits per provider per day. Additionally, we have the cost savings of not needing to house servers onsite. COVID-19 threw us a curveball, but overall, this has been a positive change, and one that has enhanced communication among physicians and between providers and patients.

## ABOUT IUI

Idaho Urologic Institute provides advanced urologic care for men, women, and children, including diagnostic imaging, minimally invasive surgery, and radiation oncology. Providers care for patients at three locations in Boise, Meridian, and Nampa, and perform surgical procedures at a multispecialty ambulatory surgery center on the Meridian campus. 

## COURSES

We're continually adding courses and other resources to our library—all free to our members. Visit [phyins.com/courses](https://phyins.com/courses) to search for a wide array of titles, including:

### Medical Error Prevention for Healthcare Professionals (1 Credit)

Given the significant impact that medical errors can have on health and safety, all licensed professionals caring for patients must understand how these errors occur and how to prevent them. This course will discuss the factors that increase risk for medical errors, and how root-cause analysis and other evidence-based strategies can aid in preventing them. In addition, five of the most misdiagnosed medical conditions will be reviewed, along with strategies for preventing misdiagnosis.

### Reducing Medical Treatment Errors in Behavioral Health (1 Credit)

In this course, you will learn the scope of medical treatment errors within the overall healthcare system and specifically in behavioral-health

settings. You will explore the types of medical errors, including error-prone situations, and use of root-cause analysis to determine why and how an error has occurred. You will also explore best practices that will help improve client safety and outcomes within your organization. Finally, you will learn your responsibilities regarding the reporting of medical errors.

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## RESOURCES

- [Steps-In-Dealing-With-An-Unanticipated-Event\\_0.pdf](#)
- [WA-OR-ID-WY-Response-To-A-Subpoena-For-Medical-Records-Or-Deposition.pdf](#)
- [Utilizing-Curbside-Consults.pdf](#)
- [Moving to Dismissal of Care.pdf](#)
- [Upset Patient Letter](#)

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## CLOSING THE LOOP

# Considerations for How EHR Systems Can Help

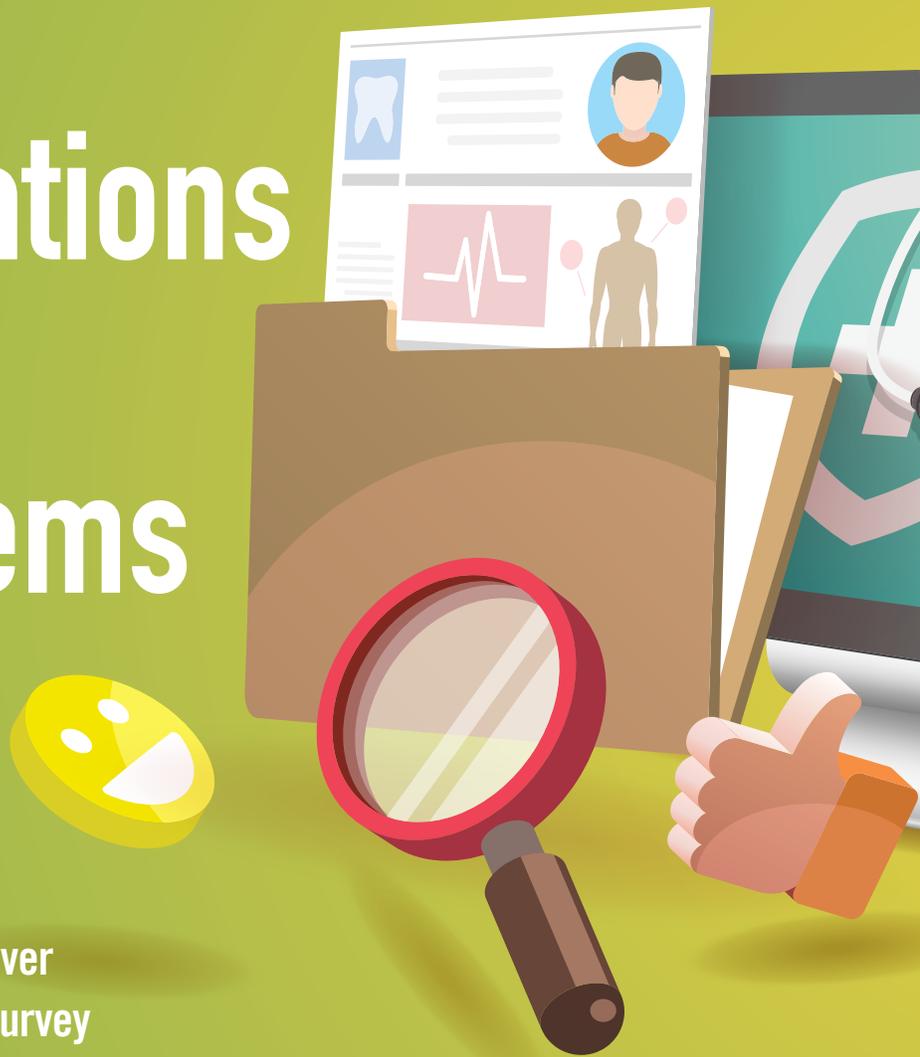
When correctly implemented, electronic health record (EHR) systems can help physicians deliver safe, quality care. In a national survey of physicians conducted by the U.S. Department of Health and Human Services, 75% reported that their EHRs improved patient care, and 88% found that their system generated clinical benefits for the practice.

Research that shows the right EHR system can reduce risk and save money for healthcare organizations. A study published in *Healthcare Financial Management* reported that a community hospital saw a 60% decrease in near-miss medication events after implementing an EHR system. Another study published in the *Southern Medical Journal* found that using an EHR facilitated improvements to documentation and coding that yielded a cost savings of more than \$100,000. In a seven-year study of Pennsylvania hospitals published in the *American*

*Economic Journal*, EHR system adoption resulted in “a 27% reduction in aggregated patient safety events, a 30% decline in negative medication events, and a 25% decrease in complications regarding tests, treatments, or procedures.”

But EHR systems are most effective at reducing errors and improving safety when they fit seamlessly into an organization's goals, culture, and clinical practices. When they don't, substantial risk-management and reimbursement challenges can arise, according to Bret Connor, senior vice president and chief customer officer with Athenahealth, a provider of cloud-based EHR technology. “The closure of key care gaps has become much more complex than in the past, so it's critical that the EHR tool can keep up,” he says.

The following considerations will help organizations select, integrate, and employ an EHR system that delivers multifaceted value, both as an enhancement to clinical practice and as a valuable error-prevention tool.





## The selection of an EHR system should be a multidisciplinary process involving clinicians and support staff, along with administrators.

### CONSIDERATION 1: STAKEHOLDER SUPPORT

The first challenge for practices is determining which EHR system to select, says Robert Tennant, director of health information technology policy for the national Medical Group Management Association (MGMA). “We’re talking about an enormous change to both the administrative and clinical sides of the organization, and a significant investment for the practice in terms of staff time and financial resources,” he says. “With this in mind, it is critical to make the right software choice.”

The selection of an EHR system should be a multidisciplinary process involving clinicians and support staff, along with

administrators. Allowing the end users of an EHR system to provide input in the selection process helps eliminate unwanted surprises down the road, notes Tennant. He also recommends speaking with colleagues in other organizations who have successfully selected and implemented an EHR system, particularly those with firsthand experience related to systems you’re considering.

“In addition to discussing the products with the vendors and viewing demos, we recommend reaching out to colleagues in similar-sized practices and in the same specialty who have implemented an EHR,” says Tennant. “Talking directly to end users, not just to sales representatives, will give you more unbiased perspectives on the performance of the software in real-world applications, and a better insight into the vendor-contracting process.”

### CONSIDERATION 2: SUSTAINABILITY

A sustainable, safety-enhancing EHR system must fit comfortably within an organization’s budget, both now and for years to come. Costs for EHR implementation and maintenance vary widely, depending on the needs of each healthcare organization. According to research and consulting firm EHR in Practice, a typical EHR implementation costs \$162,000 for a small physician

group and \$5–20 million for a hospital. But implementation costs are only one part of the system’s long-term costs. To accurately compare pricing between prospective EHR systems, organizations must consider maintenance and other fees associated with the system’s total cost of ownership.

“Critical for the practice, as you develop your project budget, is clearly understanding your financial commitment in terms of both the up-front price of the software and the ongoing maintenance fees,” says Tennant. “Also, inquire about any potential add-on expenses, such as the cost for additional training or fees for modifying clinical templates.”

An EHR’s hidden costs are any expenditures not included in its up-front pricing, from licensing and maintenance to consulting and labor. Even less obvious are the costs like decreased revenue or reduced patient volumes during EHR implementation or transition. “Inevitably, however much you expected to pay, you always end up spending more,” says Tennant.

### CONSIDERATION 3: SCALABILITY

The ideal EHR system is both reliable and responsive, serving an organization’s current needs with the

*(Continued on page 22)*



“For a doctor to have the ability to use an EHR to access insurance authorizations, potential medication interactions, and other medical information during a patient visit, in real time, means that physician can offer better, safer guidance to the patient.”

ROBERT TENNANT, MA, DIRECTOR OF HEALTH INFORMATION TECHNOLOGY POLICY, MGMA

*(Considerations, continued from page 21)*

ability to adapt rapidly to growth, regulatory changes, and emergency scenarios. “When a medical practice is making technology decisions, I suggest they choose a platform that is modern, scalable, and easy to use for both providers and staff, and that will deliver great outcomes,” says Connor.

Modern cloud-based EHR systems offer maximum flexibility for growth and organizational change, notes Connor, because adjustments and updates to the organization’s system can be rolled out across an entire health system almost immediately. This allows multi-hospital systems to operate seamlessly and continuously as updates take place. But most healthcare systems still use on-site hosted EHR systems that differ from clinic to clinic or hospital to hospital, making them more difficult to scale, adjust, and maintain.

“Healthcare lags behind other industries in the adoption of modern technology solutions,” Connor notes. “As far as EHR, practice-management, and revenue-cycle solutions go, most healthcare providers are still using on-premise technology or hosted versions of on-premise software. I would estimate that 90% of the industry is still utilizing

these legacy models.” When evaluating prospective EHR vendors, inquire about how the system is updated, scaled, and modified. Do system updates or additions take place on-site, or in the cloud? Additionally, inquire about how data from another practice or organization might be integrated into the system in the event of a merger, acquisition, or consolidation.

#### CONSIDERATION 4: REVENUE MANAGEMENT

Securing medical records for billing and Medicare reimbursement are critical for healthcare organizations, notes Tennant. “Patient medical and billing records are the lifeblood of the practice and must be protected,” he says. “If you’re moving to an EHR, you need to work with your vendor to determine the most appropriate approach to backing up these data. With the two most important words in practice management being ‘what if,’ the practice must establish protection and contingency protocols in the event of the data being compromised due to cyberattack, theft, and natural disasters such as fires or floods. Preferably, your data should be backed up in the cloud and immediately accessible, should it be needed.”

“An EHR solution needs to integrate with an organization’s practice-management system and its revenue-cycle process,” agrees Connor. “It needs to be able to share clinical data with other systems. This connectivity is critical to success, providing a more holistic view of medical-practice performance and contributing to the delivery of high-quality care to patients.” Incorporating staff or administrators from an organization’s billing department into the selection and implementation process can help ensure that a new EHR system fits an organization’s business practices as well as its clinical needs.

#### CONSIDERATION 5: CLINICAL INTERFACE

The most technologically advanced EHR won’t help reduce medical errors if it interrupts a physician’s preferred workflow or contributes to fatigue. By adding to a physician’s burgeoning workload, EHR systems can escalate physician burnout, according to research published in the *Annals of Internal Medicine*. “We know that EHR fatigue is contributing to burnout, so we’re thoughtful in the way we’ve designed our EHR platform,” says Connor. “We want to minimize the

amount of attention people need to provide to their EHR, so we can free them up to provide care for patients.”

That means that selecting the right hardware—including workstations, tablets, laptops, or other devices—is every bit as important as choosing the right software. “Selecting the appropriate clinical interface is often a critical factor in the overall success of the installation,” says Tennant. “Having a computer terminal with a screen that forces the physician to turn their back on the patient can be disruptive to the encounter, and off-putting to the patient and clinician alike. Practices should explore other options—could they use a tablet or a standing workstation? The hardware side of this is just as important as the software, because the physicians and other staff need to be comfortable using the system.”

To avoid burdening providers and staff with cumbersome data-entry duties, prioritize efficiency and brevity for clinical hardware interfaces. In 2020, the American Medical Association reported that 80% of physicians experience fatigue in 22 minutes spent working with EHRs. Incorporating clinicians and staff members into an EHR selection and implementation process helps ensure that the system’s hardware will enhance rather than detract from patient-provider communication.

### CONSIDERATION 6: INTEROPERABILITY

Modern EHR systems are increasingly connected and interoperable, facilitating quick, safe exchanges of real-time patient information. This is transforming real-time point-of-care transactions, notes Tennant. “For a doctor to have the ability to use an EHR to access insurance authorizations, potential medication interactions,

and other medical information during a patient visit, in real time, means that physician can offer better, safer guidance to the patient,” he says.

“There is a new approach emerging: leveraging EHRs for real-time point-of-care transactions,” he adds. “This ability to exchange data using EHRs during the patient encounter using Fast Healthcare Interoperability Resources [FHIR] standards is the next big thing for practices. Remember to ask potential vendors during the vetting process: ‘What point-of-care services and FHIR standards does your product support?’ Interoperability has the potential to help physicians deliver safer care while addressing significant pain points facing physicians and organizations today.” 



**Robert Tennant, MA**  
As MGMA’s director of Health Information Technology Policy, Tennant focuses on federal, legislative, and regulatory health information technology

issues, including the Health Insurance Portability and Accountability Act (HIPAA), electronic health records, electronic prescribing and ICD-10. He participates in numerous industry efforts, including serving on the Board of Directors of the Workgroup for Electronic Data Interchange (WEDI) and on the Certification Commission for Health Information Technology’s EHR Expert Panel.



**Bret Connor** serves as senior vice president for Athenahealth, a leading provider of cloud-based EHR technology. He leads Athenahealth’s client organization, which is accountable for

\$1.8 billion in annual revenue across 10,000+ clients. He also oversees client-management implementation and go-live services, coaching and training services, consulting/advisory services, and customer care.

# A Framework for Safety: SBAR

Systematizing communication between members of patient-care teams is a widely recommended strategy for improving quality and safety. Developed by Kaiser Permanente of Colorado, the SBAR (Situation-Background-Assessment-Recommendation) technique provides a simple framework for communication between healthcare providers about a patient. Widely used across medical specialties, the SBAR framework has been shown to contribute to a culture of teamwork, safety, and increased job satisfaction, and research suggests that using the framework also improves patient safety.

**S** = Situation (a concise statement of the problem)

**B** = Background (pertinent and brief information related to the situation)

**A** = Assessment (analysis and considerations of options—what you found/think)

**R** = Recommendation (action requested/recommended—what you want)

SBAR Toolkit, Institute for Healthcare Management



LEADER INSIGHTS

# Navigating to Avoid Care Gaps

Ensuring a smooth journey from diagnosis through treatment and recovery—the healthcare loop—is the goal of healthcare providers and their patients. The reality, however, is often anything but smooth.

### Too often, the healthcare loop

is hazy, fragmented, or overly complex, leaving patients to fall through its cracks. As a result, many patients experience missed or delayed diagnosis, fail to get needed follow-up care, or accidentally misuse medications because instructions were unclear. Care gaps are particularly harmful to patients facing certain problems, those with complicated medical histories, and immigrants and others with language barriers. For providers and organizations, these challenges contain opportunities for transformation. By identifying key pain points and targeting the barriers to care continuity faced by specific patient populations, practitioners can reduce risk, improve outcomes, and increase patient and provider satisfaction. Below are some suggestions from caregivers and researchers on how they have put their principles into practice to improve outcomes, avoid malpractice, and recover revenue.

### SEAMLESS SURGICAL CARE

**Stacie Wages, RN,  
Structural Heart Coordinator, CHI  
Franciscan TAVR Program**

Patients can “fall through the cracks” when they don’t understand the plan for treatment, their next steps, or whom to contact with questions or concerns. In my role as Transcatheter Aortic Valve Replacement (TAVR) coordinator, I’m the first point of contact for the patient, and I remain their primary point of contact throughout the process from referral to follow-up. Through education and setting patients’ expectations early in the process, we’ve reduced patients’ length of stay, our need for ICU admissions, and readmissions to the hospital. We modeled our program on the Vancouver 3M (Multidisciplinary, Multimodality, but Minimalist) Clinical Pathway, in which post-TAVR hospital stays are reduced from an average of six days to next-day discharge while



“I assess patients’ social support and needs to ensure they feel empowered and supported in their healthcare choices, thereby increasing their rates of follow-up and overall success.”

STACIE WAGES, RN, STRUCTURAL  
HEART COORDINATOR, CHI  
FRANCISCAN TAVR PROGRAM

improving, rather than compromising, clinical efficacy and safety. When this model is used, research has shown reductions in 30-day mortality from 3.9 percent to 1.5 percent, reductions in 30-day stroke from 6.4 percent to 1.5 percent, and reductions in 30-day hospital readmissions from 6.5 percent to 5.7 percent.

In addition, I created a screening checklist for new patients. We go through their medical history and discuss their valve clinic consult and the possible needed tests. It is also important to discuss their social support at this early

*(Continued on page 26)*



*(Leader Insights, continued from page 25)*

stage. The screening is made part of the patient's medical record, so that the entire medical team can access it. I communicate as often as needed with patients' referring and primary-care providers to keep them updated with progress and a plan of care.

We have a cohesive heart-valve team that includes coordinators, cardiac surgeons, interventional cardiologists, anesthesiologists, vascular surgeons, nurses, and support staff. We meet weekly to discuss patients' progress and adjust their plan of care as needed. This cohesive team has allowed us to reduce errors and improve efficiencies. Listening to our patients and their needs has helped us become more responsive and patient-centered. For example, by redesigning our process for patient screening and intake, we created a same-day screening and intake process that eliminated the need for multiple visits prior to surgery, which was a burden for the many patients who come from outside of our immediate area.

Many patients don't have optimal support systems in place. I assess patients' social support and needs to ensure they feel empowered and supported in their healthcare choices, thereby increasing their rates of follow-up and overall success.

To do this, I've developed relationships with multiple resources in our community, including social workers and transportation assistance. It's always about that relationship I build

with my patient and how I can support them—I work hard to make sure patients feel empowered.

## **SUPPORTING VULNERABLE PATIENTS**

**Asqual Getaneh, MD, MPH,**

**Chief Medical Officer,**

**International Community**

**Health Services (ICHS), Seattle**

Patients' language abilities affect their healthcare outcomes. In general, we know that when clinicians and patients speak the same language, patients are more likely to do well, and this is shown across different conditions. When a patient is referred to a healthcare organization where interpretation services are not robust, patients' understanding of their doctor's instructions can remain unclear. This increases the likelihood of adverse events, like failing to pursue follow-up care or taking medication incorrectly. Several studies have shown that immigrants experience higher rates of diagnostic errors, mainly due to communication failure

## **Cost Savings**

The Healthcare Financial Management Association offers information and support for cost-saving interpretation services; their research found that one health system saved \$1.5 million annually using remote interpretation technology.



“When a patient is referred to a healthcare organization where interpretation services are not robust, patients’ understanding of their doctor’s instructions can remain unclear. This increases the likelihood of adverse events.”

ASQUAL GETANEH, MD, MPH, CHIEF MEDICAL OFFICER,  
INTERNATIONAL COMMUNITY HEALTH SERVICES, SEATTLE

and a lack of familiarity with the U.S. healthcare system.

At ICHS, 50% of our patient population speaks a language other than English, so continuity of care is a big issue. To address this, we do our best to make sure patients work with the same clinician as much as possible. We deploy staff to make sure patients make their appointments to the radiology center or the sub-specialty clinic. We also make sure the results of those visits make it back to the primary-care clinician who ordered the tests, to close the loop. This is our three-step process: first, our eligibility workers determine that a patient is eligible for service; then we have referral staff who make the appointments; and finally, we have medical-records staff who make sure that the patient’s results are entered into the electronic health record.

It’s a huge challenge for clinics and hospitals in rural communities to have robust interpretation services. If there are people in the community with the

capability to develop interpretation skills, there’s the potential to develop a trained volunteer pool of interpreters. This can encourage members of the community to provide interpretation services, which is so important to patient outcomes. Similarly, if a community has a pool of people who can be trained to provide care-navigation services to help patients navigate the complexity of healthcare, that can help. And developing a core group of people who have the knowledge and ability to help people understand and choose a healthcare plan provides another layer of support to the community in a way that saves time and is cost-effective.

### RESOURCES FOR MEDICAL INTERPRETATION

The International Medical Interpreters Association, EthnoMed, and the National Institutes of Health Medline Plus offer medical interpretation training materials, health information in multiple languages, and telehealth translation information and support.

### REDUCING DIAGNOSTIC ERRORS

**Ben Wandtke, MD, BMS, Chief of Diagnostic Imaging, FF Thompson Hospital, Canandaigua, NY**

In my work as chief of radiology at a community hospital, we had seen about four incidences in a two-year period in which patients in an emergency-department setting were found to have lesions that were not immediately diagnosed as cancer. The next time these same patients came to the ED, two or three years later, they had advanced-stage cancer. When we reviewed these cases, we determined these diagnoses had been delayed. We believed the cases were preventable, and that the diagnoses were delayed unnecessarily.

We decided to see if we could get more early-stage diagnoses. This was the beginning of what we called the Backstop system. It involved a series of three interventions performed one after the other, starting with contacting the patient’s primary-care provider at regular intervals. As an added benefit to

*(Continued on page 33)*



## Key Takeaways

- There are multiple loops to close in healthcare.
- Each loop begins and ends with the patient.
- Electronic workflows must be designed and implemented to align with clinical workflows.
- When designing close-the-loop solutions, it's important not to complicate an already complex workflow.
- Members of the healthcare team should be included in the validation and testing of health IT solutions.
- Technology solutions should be used to ensure that providers have the most accurate and up-to-date information to improve patient outcomes.



*(Safe Practices, continued from page 7)*

delay diagnosis and treatment and lead to diagnostic error. Similarly to the safe practice for communication, tracking calls for the use of standard nomenclature to automate the ordering and matching of results. Organizations should adopt all available methods offered by their EHR vendors to track results and identify breaks in the process such as incomplete orders, results not reviewed, missing acknowledgments by providers on critical results, results not transmitted to the patient, or results not viewed by the patient.

Although the intention is to make tracking an automated process, we can never completely remove the human element. Identifying potential failure points through oversight and close monitoring of interface connectivity, error queues, and audit log review is essential, and automation of the process is improved using bidirectional communication with testing facilities, when available, and through standards such as LOINC, which improve the accuracy of matching diagnostic results in the patient record.

### Link

The final safe-practice recommendations are to link and acknowledge. Linking and acknowledging advocates the development and use of health IT to ensure that all new information is reviewed and acted upon. The recommendation requires enlisting the support of developers and vendors to improve interoperability, including the use of application programming interfaces (APIs) to allow laboratory systems and hospital communication, as well as the use of HL7 and fast healthcare interoperability resources. The recommendation is a call to action for the development of functionality that can link an acknowledgement of results to the action taken; it aligns with the recommendations for improved interoperability outlined in the proposed rule on the 21st Century Cures Act implementation recently issued by the Office of the National Coordinator for Health IT.<sup>3</sup>

The ability of EHRs to exchange and make use of information within and across organizations must include functionality for acknowledgement and response.



According to Sittig and Singh, more than one in every four adults will be impacted by a diagnosis error in their lifetime.

## AN ISSUE OF CONSEQUENCE

Closing the loop on diagnostic error is an issue of consequence in healthcare today. Providers face an increased burden in the present climate as they are challenged more and more to track test results, identify patients at risk, and share the information in a timely manner with patients, public-health departments, registries, and health-information exchanges.

According to Sittig and Singh, more than one in every four adults will be impacted by a diagnosis error in their lifetime.<sup>4</sup> Every year, healthcare costs related to diagnostic error continue to rise.<sup>5</sup> According to a *BMJ* Quality & Safety article which analyzes U.S. malpractice claims for diagnosis errors, the 25-year sum (1986-2010) of diagnosis-related payment was \$38.8 billion (<https://qualitysafety.bmj.com/content/22/8/672>).

By closing the loop to reduce the number of diagnostic errors and ensure that timely treatment and therapies are implemented, we can improve these outcomes for patients everywhere. 



**Patricia Giuffrida** has more than 20 years of healthcare experience. Prior to joining ECRI and the Institute for Safe Medication Practice PSO, Giuffrida served on the ECRI

Partnership for Health IT Patient Safety as a senior analyst and health information technology liaison since 2017. In that role, she has chaired multiple Partnership workgroups, conducted data review and analysis, and interfaced with Partnership members. She has experience as a critical-care nurse, practice administrator, EHR implementation specialist, director, and project manager.



**Robert C. Giannini**, BS, NHA, CHTS—IM/CP, Patient Safety Analyst/Consultant has more than 30 years of experience in the areas of administration, patient safety,

quality and risk management, performance improvement, health information technology, regulatory affairs and accreditation, medication safety, and service-line development. He has held roles as a patient-safety officer and nursing-home administrator.

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- <sup>2</sup> Partnership for Health IT Patient Safety. "Health IT Safe Practices for Closing the Loop." Plymouth Meeting (PA): ECRI Institute; 2018. Also available at: [https://www.ecri.org/Resources/HIT/Closing\\_Loop/Closing\\_the\\_Loop\\_Toolkit.pdf](https://www.ecri.org/Resources/HIT/Closing_Loop/Closing_the_Loop_Toolkit.pdf).
- <sup>3</sup> Ext of proposed rule: 45 CFR Parts 170 and 171, RIN 0955-AA01, 21st Century Cures Act: Interoperability, Information Blocking, and the ONC Health IT Certification Program. Washington (DC): Office of the National Coordinator for Health Information Technology; 2019 Feb 11. Accessed February 15, 2019, at: <https://www.healthit.gov/topic/laws-regulation-and-policy/notice-proposed-rulemaking-improve-interoperability-health>.
- <sup>4</sup> Singh H, Meyer AN, Thomas EJ. "The Frequency of Diagnostic Errors in Outpatient Care: Estimations from Three Large Observational Studies Involving US Adult Populations." *BMJ Qual Saf*. 2014 Sep;23(9):727-31. Also available at: <http://dx.doi.org/10.1136/bmjqs-2013-002627>. PMID: Pubmed:24742777.
- <sup>5</sup> Tehrani AS, Lee H, Mathews S, Shore A, Frick K, Makary M, Pronovost P, Newman-Toker D. "20 Year Summary of US Malpractice Claims for Diagnostic Errors from 1985–2005." From The 33rd Annual Meeting of the Society for Medical Decision Making; 2011 Oct 22-26; Chicago (IL).

## Resources

The Partnership's Health IT Safe Practices for Closing the Loop and additional safe-practices toolkits, whitepapers, and resources can be found at <https://bit.ly/3JyGvql>



# GOVERNMENT RELATIONS

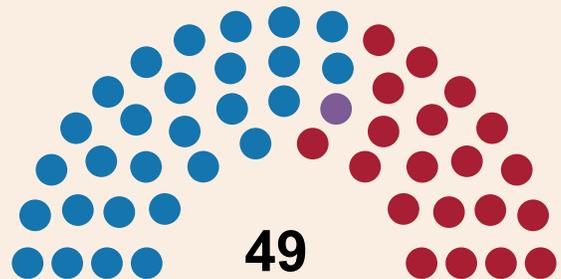
## 2021 Legislative Session Update

Legislative sessions are underway in our various states, and we are actively working to provide advocacy on legislative proposals that impact the medical professional and hospital professional liability environment and healthcare community. We have deep experience working collaboratively on the side of the defense and have had success in chambers with narrow margins and challenging legislative environments. In addition, we continue to engage in government-relations activities that address healthcare providers and facilities around the COVID-19 outbreak at both federal and state levels. We are working with our national and state strategic partners to reduce the threat of liability for facilities, healthcare professionals, and their patients. Below is a brief update.

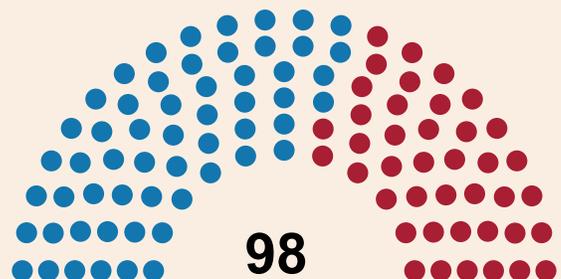
### WASHINGTON

The legislative environment remains the same, with the Democrats in control of both chambers. Although there are some new members, the margins in both chambers remain unchanged, with 28 Democrats to 21 Republicans in the Senate (1 Democrat caucuses with the Republicans) and 57 Democrats to 41 Republicans in the House of Representatives for the biennium 2021–2022 session. The 2021 session ran 105 days, convened January 11, and is scheduled to adjourn April 25.

#### WASHINGTON STATE SENATE



#### WASHINGTON STATE HOUSE OF REPRESENTATIVES





Due to COVID-19, the session will be fully remote and all public hearings and actions will be held online. We anticipate that roughly 2,500–3,000 bills will be introduced for consideration this session. We also anticipate several challenges to the MPL/HPL environment, healthcare facilities, providers, and their patients. Of concern this year is legislation that increases healthcare costs by raising the amount due for pre-judgment interest, legislation addressing data privacy and cybersecurity, legislation that expands liability for healthcare providers, and several legislative proposals that include a private right of action. However, we are well-positioned with our partners to address those challenges. We will continue to seek COVID-19 liability protections and have been working with stakeholders, including the plaintiff trial bar, to introduce legislation that provides COVID-19 standard-of-care language for healthcare providers (SB 5271).

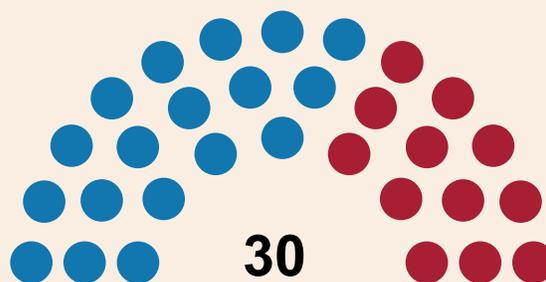
For more information: <https://leg.wa.gov>

## OREGON

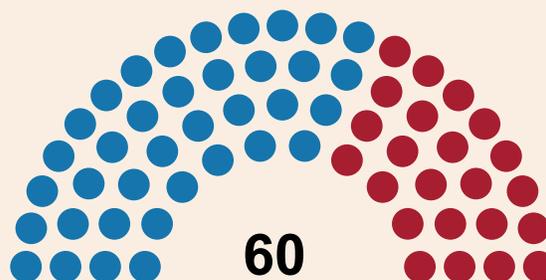
As in Washington, the legislative environment remains relatively the same, with the Democrats in control of both chambers. The Senate remains at 18 Democrats to 12 Republicans, while the House of Representatives gained one Republican seat for 37 Democrats to 23 Republicans for the biennium 2021–2022 session. The 2021 session will run 160 days, and convened January 19. It is scheduled to adjourn around June 27. Due to the impact of COVID-19, the session will be conducted remotely until early March; however, we anticipate that the virtual session will be extended. The Oregon Legislature does not have a bill limit for the 2021 session, so as in Washington, we anticipate that roughly 2,500–3,000 bills will be introduced this session. This is also the year that both Washington and Oregon must negotiate and pass a working budget for their states, which usually results in extended special sessions.

We anticipate several challenges to the MPL/HPL environment, healthcare facilities, providers, and their patients, and are well positioned to address those anticipated challenges. Of concern this year are legislation that adds insurance to the

### OREGON STATE SENATE



### OREGON STATE HOUSE OF REPRESENTATIVES



Unlawful Trade Practices Act and legislation that expands the types of lawsuits that are brought against insurance companies. During the 2020 special session, stakeholders met to negotiate and agree to COVID-19 liability protections. Those COVID-19 liability protections passed the Senate by the majority, but failed to pass the House of Representatives. We will continue to seek passage of COVID-19 liability protections and continue to work with the stakeholders, including the plaintiff trial bar, to introduce legislation that provides limited liability for certain claims for damages arising out of acts of omissions in reasonable compliance with government guidelines (HB 2638).

Legislation has also been filed to repeal the sunset on the Early Discussion and Resolution program for adverse healthcare incidents. We are prepared to address challenges to the \$500,000 wrongful-death non-economic damage cap if necessary, and will be following the legislation expanding the Oregon Tort Claims Act.

For more information: <https://www.oregonlegislature.gov>

*(Continued on page 32)*

(Govt. Affairs, continued from page 31)



## IDAHO

In Idaho, the legislative environment remains the same, with Republicans in control of both chambers. The Senate will have 28 Republicans to seven Democrats. The House of Representatives will have 58 Republicans to 12 Democrats. The 2021 session convened January 11, and was scheduled to adjourn March 31. Due to the impact of COVID-19, the Idaho Legislature will be limiting the number of bills introduced this session. Our draft phantom-damage legislation prepared for the 2021 session will most likely not be introduced until 2022. Idaho is considering SCR101, which would effectively end the current emergency declaration regarding Idaho's response to the COVID-19 pandemic. We are working with our partners in Idaho to remove or extend the sunset in Idaho's current COVID-19 liability protections, along with introducing amendments that strengthen the protections to cover additional claims, not just claims relating to exposure and transmission. The sunset for COVID-19 liability protections is due to expire in summer 2021.

For more information: <https://legislature.idaho.gov>



## CALIFORNIA

In California, we continue to collaborate with our strategic partners to prepare for the 2022 ballot challenge to increase the \$250,000 cap on non-economic damages recoverable in personal injury and wrongful-death actions in California's Medical Injury Compensation Reform Act.

For more information: <https://micra.org>



## FEDERAL

The recent results of the 2020 state and federal elections, particularly the change in control of the 117th Congress in the U.S. Senate, leads to a new environment with challenges and opportunities that could impact the MPL/HPL environment and healthcare community. Republicans briefly held the majority at the beginning of the term, but after January 20, they hold 50 seats, and the Democrats hold 48, with the two Independents who caucus with the Democrats effectively making the Senate a 50-50 split. Vice President Kamala Harris will serve as the tiebreaker in her role as Senate President, giving the Democrats control of the Senate and full control of the 117th Congress.

In the House of Representatives, the Democrats retain their majority with the narrowest margins seen in 60 years. It will be the swing votes that determine the legislative priorities and bills addressed this Congress. We anticipate the priorities of Congress to include the passage of legislation and the implementation of regulations to strengthen the Affordable Care Act, reduce prescription-drug prices, and advance data-privacy legislation. The Collaborative for Accountability and Improvement recently unveiled information for states seeking to establish communication and resolution programs, similar to Oregon's Early Discussion and Resolution program for adverse healthcare incidents.

We are working with our partners to promote legislation that provides reasonable COVID-19 liability protections for healthcare providers and facilities who are leading the efforts to address the pandemic, legislation that strengthens Good Samaritan provisions, and legislation that includes telemedicine liability protections as telemedicine continues to expand. [PR](#)

## GOVERNMENT RELATIONS

Anne E. Bryant, Senior Director of  
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“The biggest risk for diagnostic error is in the transitions of care for patients who are seen in a hospital setting like an emergency department.”

BEN WANDTKE, MD, CHIEF OF DIAGNOSTIC IMAGING, FF THOMPSON HOSPITAL, CANANDAIGUA, NY

*(Leader Insights, continued from page 27)*

this work, about one in six patients we reached out to who did not have a PCP was able to find one and get the follow-up care they wouldn't have had otherwise.

The biggest risk for diagnostic error is in the transitions of care for patients who are seen in a hospital setting like an emergency department. At my hospital, about 45% of the patients were coming back for their recommended follow-up care. When we finished our pilot study in July 2017, we had increased that to 71%, which is a 38% increase in follow-up compliance.

In July 2017, we implemented the Backstop system in the University of Rochester Health System. Our results were almost identical to those from the pilot study: we increased the rate of follow-up compliance percentage from the mid-50s to the mid-70s. We saw about an 85% reduction in the number of patients at risk for delayed diagnosis.

When our radiologists made calls to primary-care providers to talk to them about follow-up for patients, we were concerned the PCPs might feel we were overstepping our bounds—but we

found almost universally the opposite effect. They were surprised and pleased. We weren't disrupting them, we were potentially saving their patient's life and preventing a malpractice event. As part of our program, patients also had the opportunity to speak to a radiologist. As a radiologist, you rarely see the patients you care for, so this was an opportunity for practitioners to step out of the reading room and interact with patients on a more personal level. 



**Stacie Wages, RN**, is a critical-care nurse who guides patients through cardiology care and recovery as the Structural Heart Coordinator for CHI Franciscan's

nationally recognized transcatheter aortic valve replacement (TAVR) program in Bremerton, WA. The program is known for effective care coordination, having successfully reduced rates of hospital readmission and shortened hospital stays for its patients. In 2020, Stacie was honored with the Leadership Kitsap 20 Under 40 Award for outstanding leadership and impact for St. Michael Medical Center and the Kitsap Peninsula community. [stacie.wages@harrisonmedical.org](mailto:stacie.wages@harrisonmedical.org)



**Asqual Getaneh, MD, MPH**, currently serves as chief medical officer of International Community Health Services (ICHS) in Seattle, a role she assumed after holding the position of ICHS

medical director since July 2018. Prior to joining ICHS, Dr. Getaneh served as a medical director of a health center at Unity Health Care, the largest community health system in Washington, D.C. An expert in global health and research to improve health equity among minority populations, Dr. Getaneh was previously an associate clinical professor of medicine at Columbia University College of Physicians and Surgeons. [qualg@ichs.com](mailto:qualg@ichs.com)



**Ben Wandtke, MD**, BMS serves as chief of diagnostic imaging at FF Thompson Hospital in Canandaigua, New York, where he practices as a general radiologist. His funded research

focuses on health-system quality improvement, most notably the development of the Backstop radiology recommendation tracking system, which assures that patients with incidental findings receive appropriate follow-up care, eliminating delays in diagnosis of cancer. Dr. Wandtke is President of the Medical Staff of FF Thompson Hospital and Vice President of the Rochester Roentgen Ray Society. [ben\\_wandtke@urmc.rochester.edu](mailto:ben_wandtke@urmc.rochester.edu)

## IN THE CHAIN OF COMMUNICATION

# Reporting Results of Critical Tests Is Key

## Communication breakdowns are part of life.

Very regularly, well-intentioned people are unclear, misunderstand, or fail to act. Still, communication breakdowns in the reporting of critical medical test results can be catastrophic, so health professionals must continually work to close the loop on systemic issues involving communication, including the timely relaying of critical values, patient handoff from one provider to the next, and follow-through procedures.

There are many contributing factors to diagnostic error, communication breakdown being one of them. To reduce diagnostic error, improve patient safety, and reduce liability risks and possible claims, it's important not to let critical test results slip through the cracks. It's an issue that applies to practices of all sizes.

### WHY PROBLEMATIC?

One might ask, what's so difficult about reporting test results? A doctor orders a test, the test is given, a lab delivers the result, the doctor tells the patient, the patient is treated. But information can potentially dead-end at every point in the chain of communication. The more steps there are, and the more people involved, the more chances for error.

Here's how. A doctor may order a test, but the patient doesn't get it done. The test may get done, but the tracking system misses that it's critical. A doctor other than the original provider may receive the result, but not have the context to interpret the result correctly. The patient might be told the result, but not seek the treatment ordered. Or perhaps there's a conflict in the findings, or they're inconclusive—say, it's not clear if a bone is fractured or not—and the medical issue simply gets dropped by both the doctor and the patient.

Error can also occur when a doctor orders a test—say, a study for abdominal pain—and the person interpreting the test—in this example, a radiologist—sees something that could be critical, but is unrelated to the original acute issue. In some cases, that person may not relay the surprise finding or have the provider look into it further, leading to problems down the line.

Dr. Bill Kriegsman, a MultiCare residency faculty member with a background in family practice, obstetrics, and addiction medicine, offers a scenario drawn from his own experience. “If an ultrasound tech were to discover a low fetal heartrate in a patient of mine, they would call me right away and ask for my instructions, because a low heartrate in a fetus is a clear threat to its life and we would need to react right away,” he says. “The patient would be told to go to a birth



center immediately, and I would meet her there.” But, he points out, things could still go wrong. “The tech could fail to recognize that the heartrate is low, or fail to understand that the low heartrate is critical,” he says. “If a doctor is covering for me and they receive the call, they might not perceive the level of threat the result represents, or perhaps they’re not familiar with the patient’s history and how the result might be relevant. The critical value then might not be communicated clearly to the patient, and she might not understand how urgent the situation is.”

### WHAT'S CRITICAL?

Many diagnostic studies—which could be labs or imaging—with abnormal results have a “critical value,” representing an imminent threat to a patient’s health. The reporting of any result that has critical value is time-sensitive: any delay could turn a problem that was initially treatable into one that’s not.

In both hospital and outpatient settings, policies set by labs and providers define what those critical values are, and the time frame in which they must be communicated. There are national patient-safety goals, set by the Joint Commission, and state health-department expectations. Still, “timeframes for reporting critical values are somewhat dependent on the capability of the individual labs,” says Dr. Kriegsman—and that response discrepancy can leave room for problems to occur.

Inpatient settings have an advantage over outpatient settings in responding to critical test results, because of their ready access to patients. “It’s more complicated with outpatient, because the provider has to decide how to reach the patient, and it can be harder to track people down after-hours,” Dr. Kriegsman says.



“For every critical lab result, there has to be a record of acknowledgment that the result was received, and a consideration of what that result means. Documenting your part in the chain of communication shows that your system is working, and you’re doing what you’re supposed to.”

DR. BILL KRIEGSMAN,  
MULTICARE RESIDENCY  
FACULTY MEMBER

### HOW COMPLICATED?

“Critical values should be clearly defined, based on single tests and single results, but a single value doesn’t necessarily constitute a threat,” explains Dr. Kriegsman. “The challenge comes in when combinations of values are what makes the situation critical”—patterns of the results within blood tests, for example, as opposed to any one value in the blood count.

Another gray area would be an abnormal result that’s not critical because it’s not an imminent threat, but could

become catastrophic over the near term—and depend on the overall health of different patients. Case in point: a positive COVID-19 test. “Obviously, this could be more severe for an elderly person with high blood pressure and obesity than it would be for a healthy 20-year-old,” Dr. Kriegsman notes.

Dr. Kriegsman’s advice to providers for navigating the complications: “For every critical lab result, there has to be a record of acknowledgment that the result was received, and a consideration of what that result means. Documenting your part in the chain of communication shows that your system is working, and you’re doing what you’re supposed to.”

Whether a test result is critical or not, he says, “with any lab result that is unexpected or requires action to be taken, documentation is super important.” 



Dr. Bill Kriegsman,  
MultiCare residency  
faculty member

## MORE INFORMATION

To learn more about critical test-results reporting, check out:

- From the Joint Commission: <https://bit.ly/378YvZY>
- An example of policies and procedures around critical result reporting: <https://bit.ly/3jKJtyj>
- An example of a critical-value list: <https://shc.is/3pkDcdP>
- An example of improving critical-result reporting: <https://bit.ly/37bKLxv>

# THE DATA STORY

## Diagnostic Errors Account for Top Liability Claims and Lawsuits



**In the 35 years since the Medical Professional Liability Association has been compiling information from insurers, diagnostic error has consistently been one of the top reasons doctors are sued.**

P. Divya Parikh, Vice President of Research and Education at the MPL Association, oversees the organization's Data Sharing Project (DSP), the nation's largest ongoing independent collaborative database of medical professional liability claims and lawsuits. "Diagnostic error has been the number-one or number-two area of claims activity historically, since we've had this database," she says. "Cost aside, the impact on medicine in general is enormous. A primary reason to see a clinician is to answer a diagnostic question, so reducing diagnostic errors is important. The data helps us understand the claims and where the gaps are, and helps pinpoint where we can work to reduce errors and improve delivery of care."

In a recent review of closed claims from 2016 to 2018, the DSP reported 18,724 closed claims, with 5,305 resulting in indemnity payment, for a total of \$2 billion in total indemnity paid, at an average of \$371,560 per indemnity paid.

The below table shows the chief medical factors by closed claims in diagnostic errors from 2016 to 2018:

Chief Medical Factor	Closed Claims	Paid Claims	Paid/Closed Ratio	Average Indemnity	Average ALAE
Incomplete/Inadequate	3,375	937	28%	\$460,000	\$55,000
Failure to Diagnose	1,153	217	19%	\$580,000	\$50,000
Not Performed when Indicated	559	209	37%	\$460,000	\$68,000
Wrong Process, Wrong Patient, Wrong Body Part	395	96	24%	\$446,000	\$48,000

# About the Medical Professional Liability Association

The Medical Professional Liability Association is the insurance industry trade association representing the range of organizations in medical professional liability (MPL), including domestic and international MPL insurance companies, risk-retention groups, captives, and trusts.

MPL Association membership is open to MPL organizations owned and/or operated by physicians, hospitals, health systems, dentists and oral maxillofacial surgeons, podiatrists, chiropractors, and healthcare providers such as nurse practitioners, nurse midwives, and CRNAs, as well as to insurance carriers with a substantial commitment to the MPL line.

MPL Association members insure nearly 2 million healthcare professionals around the world—doctors, dentists, nurses and nurse practitioners, and other healthcare providers—including more than two-thirds of America’s private practicing physicians. MPL Association members also insure 2,500 hospitals and 9,000 medical facilities globally.

The MPL Association’s mission is to promote, protect, educate, and connect MPL insurers that support the quality delivery of healthcare and the practice of medicine, and its vision is to be the recognized forum and voice of those insurers.

[mplassociation.org](http://mplassociation.org)

The top resulting medical conditions by closed claims in diagnostic error during that two-year period were:

- Cardiac arrest
- Cerebral infarction
- Lung cancer
- Pulmonary embolism
- Other sepsis
- Emotional distress
- Aortic aneurysm and dissection

## TOP SPECIALTY CLAIM TRENDS

The top specialties by closed claims for diagnostic error in 2016–18 were radiology, internal medicine, family medicine, obstetrics and gynecology surgery, internal medicine subspecialties, and emergency medicine. Radiology had the highest percentage of diagnostic-related closed claims at 77%, compared to 17% of closed claims related to procedure. (Compare that to internal medicine, where 47% of closed claims were diagnostic-related and 30% were procedure-related, and to ob/gyn surgery, where 25% of closed claims were diagnostic and 66% were procedure-related.)

RADIOLOGY (2016-2018)	
Closed Claims	1,403
Paid Claims	438
Paid/Closed Ratio	31%
Total Indemnity Paid	\$198 million
Average Indemnity Paid	\$452,240
Total ALAE	\$65 million
Average ALAE	\$46,312

The most prevalent and most expensive outcome for diagnostic claims in radiology was breast cancer. The largest payment reported for a radiology claim was \$3.7 million. This claim was for a diagnostic error in which the patient presented with

atypical headache syndrome and a CT scan was performed. The resulting medical condition was a nontraumatic subarachnoid hemorrhage, leading to a lifelong medical condition.

INTERNAL MEDICINE (2016-2018)	
Closed Claims	1,969
Paid Claims	463
Paid/Closed Ratio	24%
Total Indemnity Paid	\$174 million
Average Indemnity Paid	\$375,545
Total ALAE	\$101 million
Average ALAE	\$51,367

Top-resulting medical conditions named in internal-medicine claims for diagnostic-related issues included cardiac arrest, lung cancer, and cerebral infarction. The largest indemnity payments reported for internal-medicine claims were two at \$2 million each: one for diagnostic error, in the case of a patient presenting with pain in the throat and chest resulting in acute myocardial infarction and death.

OB/GYN SURGERY (2016-2018)	
Closed Claims	1,778
Paid Claims	644
Paid/Closed Ratio	36%
Total Indemnity Paid	\$296 million
Average Indemnity Paid	\$459,469
Total ALAE	\$130 million
Average ALAE	\$73,245

The largest payment reported for an ob/gyn claim was \$4 million. The primary allegation named in this claim was diagnostic error involving a newborn affected by other complications of labor and delivery. The procedure performed by the clinician was fetal monitoring,

(Continued on page 39)

Importantly, error-reduction strategies should begin with people-focused interventions for improving communication between clinicians. Routine “diagnostic huddles” between providers and staff can facilitate the exchange of vital diagnostic information about patients, even in a busy clinical setting.

*(Overcoming Systemic Challenges, continued from page 11)*

fatigue and burnout, and the utilization of newly designed work processes have also increased the risk for medical error during the COVID-19 era.

“Very early on in the COVID journey, there was robust discussion among providers and hospital leadership to understand the potential of missing or delaying a COVID diagnosis,” says Anderson. “COVID-19 can look like many other health conditions; this also increases risk for patients and providers. As testing became available, we saw the importance of being able to quickly put into play many precautions, like isolation and home quarantine, along with the importance of the ability to quickly rule out other conditions.”

“COVID has exposed everything that is not well with the healthcare system, from access to care and capacity issues to the need for telehealth,” says Doten. “The healthcare system did an amazing

job, but because everything was so acutely cobbled together, we’re going to have to figure out how to implement it thoughtfully going forward.”

### A SYSTEMIC SOLUTION FOR COVID-19

The Society of Hospital Medicine researchers recommend systemic interventions to reduce the risk of medical error during the COVID-19 pandemic. Importantly, error-reduction strategies should begin with people-focused interventions for improving communication between clinicians. Routine “diagnostic huddles” between providers and staff can facilitate the exchange of vital diagnostic information about patients, even in a busy clinical setting. According to research published in the *Annals of Internal Medicine*, healthcare organizations can help providers and staff cope with COVID-related stress by facilitating peer support and establishing and providing

training to the team, following a clear crisis-communication plan.

### CREATING A “JUST CULTURE”

Any worthwhile effort to reduce medical errors must include an examination of an organization’s culture, says Doten. “We need to create a culture where we can openly talk about errors, and where learning from our mistakes is possible,” he says. “Changing culture is hard. We need everyone to feel safe speaking up and ensure that those kinds of things are encouraged, not punished or viewed in a negative way. In my lifetime of practice, I’ve seen a pretty big swing in that direction, and that’s huge.”

For more information about “Just Culture,” see “A Just Culture: Reducing Errors and Clearing the Way for Improvements” on the Physicians Insurance website ([phyins.com](http://phyins.com)). 



**Trish Anderson, CPHQ, MBA, BSN,** serves as senior director of safety and quality for the Washington State Hospital Association. In this role, she collaborates with

healthcare leaders to achieve high-performing work environments that maximize resources while enhancing patient, provider, and staff satisfaction. Previously, she served as the director of women’s and children’s programs at EvergreenHealth.



**Ian Doten, MD, FACEP, CHSE,** is an emergency-medicine physician and executive medical director at Seattle-based InSytu Advanced Healthcare Simulation. He has more than 15 years of clinical

experience and previously served as the medical director for the Swedish First Hill and Cherry Hill Emergency Departments, and chief of emergency medicine for Swedish Medical Center in Seattle.



**Ben Wandtke, MD, BMS,** serves as the University of Rochester Medical Center’s vice chair of quality and safety, associate professor of diagnostic imaging, and chair of population

health. As the chief of diagnostic imaging at the University of Rochester’s FF Thompson Hospital in Canandaigua, New York, he is responsible for delivering efficient, team-based, patient-focused radiology services and adding value through innovative quality improvement.

## About the Data Sharing Project

The Data Sharing Project (DSP) is the largest ongoing, independent collaborative database of MPL claims and lawsuits, compiling information from MPL Association insurers. Last year marked the 35th anniversary of this collaborative effort.

Member companies voluntarily contribute data to this resource, and in doing so, demonstrate their dedication to and need for this aggregated source of MPL claims data to enhance risk-management programs and track claim costs. MPL Association members have shared more than 350,000 physician and dental-professional claims.

The DSP reports data in a number of ways to its members and stakeholders. Members of the MPL Association have access to snapshots and studies. Participating members of the DSP have the highest level of access to information through DSP Dashboards, which allow for further comparative analyses in which member companies review their own data against the national aggregate in many ways.

MPL Association member companies, academic institutions, nonmembers, and others with MPL interests incorporate information from DSP reports into their own educational materials through data-query requests, citation requests, and collaboration opportunities.

*(Data Story, continued from page 37)*

and the resulting medical condition was intrauterine hypoxia and birth asphyxia, leading to the death of the newborn.

### TELEHEALTH CLAIMS MAY RISE

One area the MPL Association will be looking at closely in the near future is the impact of diagnosis via telehealth.

Telehealth has existed in primary care for a very long time, but virtual visits weren't widely adopted until about five years ago, when Americans' use of digital devices like smartphones reached a critical threshold. It wasn't until the pandemic, though, that telehealth experienced enormous growth, as many providers were forced to start using it—to a degree that may be here to stay. There are obviously limitations to a virtual visit, so there is an inherently greater degree of uncertainty in telehealth diagnosis. That potential for error can be communicated to the patient during the virtual visit. "We're hoping we don't see an increase in diagnostic errors in telehealth, and managing patient expectations about the possibility of misdiagnosis could help mitigate that," Parikh says.

A recent review of claims from 2014 to 2018—the years when telehealth started to take hold in a substantial way—showed that only 2% of claims and lawsuits involved a telehealth service, which ranged from phone calls with doctors to mobile health, remote patient monitoring, and live video conferencing.

During those four years, telemedicine closed claims resulting in an indemnity payment to the claimant totaled \$71.2 million. The average indemnity payment

was \$220,520, and the largest payment was \$3 million.

Medical specialties with the highest number of closed and paid telemedicine claims were primary care, ob/gyn, and dentistry.

The MPL Association plans to continue monitoring telemedicine claims as they may arise in the future.

### PANDEMIC PICTURE UNCLEAR

It can take years for medical professional liability cases to close, so it will be some time before the Data Sharing Project will have the numbers to tell the story about diagnostic errors in any area during the pandemic.

Even in typical years, "medical liability claims data has a very long tail," Parikh explains. But under the circumstances of the pandemic, it could take even longer. The court system itself has been slowed by the pandemic.

"There was a decrease in claims volume overall in 2020," Parikh says. Some of that was due to federal and state immunity statutes and executive orders that protected clinicians who treated COVID-19 patients. Some of it could also be due to the "halo effect" of medical professionals being seen as heroes during the crisis. It could also be due to people delaying non-COVID-related testing and procedures because of the pandemic.

Parikh anticipates upward claims trends related to COVID-19 in long-term care down the road, as well as a return to claims volume norms as we emerge from the crisis. 



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## CELEBRATING VOLUNTEERS!

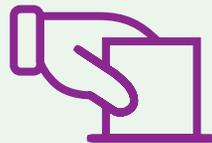
National Volunteer Week is April 18–24



We join in the celebration of those who volunteer their time and talents in the service of others in our communities! One way that healthcare providers offer life-changing and often life-saving service is through volunteer work with Project Access Northwest. An important partner of Physicians Insurance, this organization works in collaboration with regional hospitals, hospital systems, and multi-specialty medical groups to seamlessly coordinate care and other services with no administrative burden to providers. With more than 1700 volunteer providers and medical partners, the nonprofit organization has served more than 58,000 patients since 2006.

Look for more information about how providers partner with Project Access Northwest to donate care to low-income and uninsured patients—and the value this brings to our region.

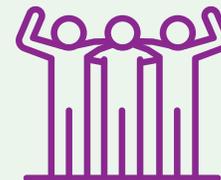
[projectaccessnw.org](http://projectaccessnw.org)



## 2021 PHYSICIANS INSURANCE Annual Meeting and Proxy Vote

The annual meeting of the members of Physicians Insurance A Mutual Company will be held on **Monday, April 26, 2021, at 1 p.m.** Pacific Time. For the health and safety of our members, the meeting will be held via teleconference. Access information is available on the Physicians Insurance website. The purposes of this meeting are to elect directors and act on any other matters coming before the meeting. Additional information on the vote is available on the company's website.

Visit [phyins.com/proxy2021](http://phyins.com/proxy2021) to place your vote by close of business, **Friday, April 23, 2021.**



## WELCOME To Our New Members!

### MEDICAL PROFESSIONAL LIABILITY

**Willamette ENT and Facial Plastic Surgery, LLC**  
Salem, OR

**Heart Central of Washington, PLLC**  
Yakima, WA

### STOP LOSS

**MultiCare Health System**  
Tacoma, WA

**Greater Lakes Mental Healthcare**  
Lakewood, WA