Earlier this year, JAMA re-published an article, “Why Physicians Err in Diagnosis.” In it, the causes of diagnostic error were described, such as insufficient knowledge, various types of cognitive bias, and patient factors. The author writes, “Sad to confess, mistakes from incomplete examination form the largest class.” In fact, these words had originally been published in the March 27, 1915 issue. A century later, diagnostic error is still with us.

Defined as missed, delayed, or incorrect diagnosis, diagnostic error occurs as often as 10% to 15% of the time. It can be identified by autopsy studies, medical record reviews, physician and patient surveys, claims data, and peer-reviewed research studies. Like a perfect storm, diagnostic error is often the result of multiple factors that come together at the same time:

- Physician cognitive bias
- Patient factors
- Healthcare system breakdowns
- Communication failures.

The PIAA Data Sharing Project tells us diagnostic error is a leading cause of claims for many specialties, making it a key issue in risk management and patient safety. Responding to this issue, Inside Medical Liability magazine ran a cover story on the subject in its First Quarter 2014 issue, authored by Mark Graber, MD, founder of the Society to Improve Diagnosis in Medicine (SIDM).

There have been many new developments in the quest to improve diagnosis, and a number of PIAA member companies and their staffs have contributed to this progress.

**Diagnostic error in the public eye**

In 2014, the Robert Wood Johnson Foundation published a brief from the Urban Institute, “Placing Diagnostic Errors on the Policy Agenda.” The Agency for Healthcare Research and Quality (AHRQ), for the first time in its history, issued two Funding Opportunity Announcements specifically calling for grant applications to study diagnostic errors in the ambulatory setting. Also, the Institute of Medicine (IOM) launched a committee to study diagnostic error, and their final report was released this year.

Because of the importance of this issue for the healthcare and MPL communities, I recently spoke with some of the thought leaders in diagnostic error about developments over the past year.

The first expert I spoke with was Paul Epner, MEd, MBA, executive vice president of the Society to Improve Diagnosis in Medicine (SIDM) and past president of the Clinical Laboratory Management Association.

Q: How can PIAA member companies and the thought leaders in diagnostic error collaborate?

Epner: That process has begun. PIAA member companies are becoming much more involved in our organization, our conference, and in research and education efforts to improve diagnosis. Last year, representatives of a dozen medical professional liability (MPL) insurance companies attended our Diagnostic Error in Medicine conference and sat down in a room together to share efforts. Divya Parikh, vice president of research & risk management at PIAA, and Dana Siegal, RN, CPHRM, director of patient safety services for CRICO Strategies, led a session at that conference, presenting information about diagnostic error from the perspective of their respective claims databases. This served to build significant interest in how SIDM and the MPL community can collaborate on data analysis, research, and education.

Since then, numerous MPL companies have joined SIDM, and individual staff members of PIAA companies have become members of the SIDM board and committees. The editor of PIAA’s Inside Medical Liability magazine follows our ListServ discussion online. MMIC, LAMMICO, and others have developed and presented important educational programs for their insureds on diagnostic error.

Our 2015 DEM Conference featured a session devoted to risk management and the perspective of MPL companies on that topic, with speakers from COPIC, MMIC, ProAssurance, and also from the American Society for Hospital Risk Management.
The PIAA Data Sharing Project tells us diagnostic error is a leading cause of claims for many specialties...

Q: How can other partners come forward to further these efforts?

Epner: SIDM has been raising funds and organizing a coalition of 20 medical specialty societies and quality improvement organizations that are coming together to find solutions and involve their respective memberships in a national campaign to improve diagnosis.

Coalition members have pledged to take collective and individual action to address the problem. SIDM and the coalition will be looking for opportunities to maximize the impact of the IOM Report while also ensuring an appropriate understanding of this complex topic.

Q: Where can practicing physicians go to learn more about improving diagnosis?

Epner: SIDM members contribute to a large and active LinkedIn professional group on diagnostic error, and there are numerous other free resources.

The SIDM website, www.improvediagnosis.org, is a source of patient and provider tool kits, reference lists, and diagnosis topics in the news. Anyone can sign up to receive the Improve Diagnosis e-newsletter or join the ListServ online discussion group on diagnostic error. And a newly forming Practice Improvement Committee will certainly be bringing other ideas to the forefront.

The National Patient Safety Forum Foundation has three on-demand webinars on diagnostic error on their website. See: https://npsf.site-ym.com/?page=diagnosticerrors.

Finally, insured physicians can search the website of their own PIAA company for CME activities, webinars, and other resources on diagnostic error.

Next, I spoke with David Newman-Toker, MD, PhD, Associate Professor of Neurology at John Hopkins, a Board Member of SIDM, and a prominent researcher in the field of diagnostic error. I asked him about the new requests for grant proposals on diagnostic error from AHRQ.

This lays the foundation for driving down the rate of error. One example in the emergency department (ED) setting is using administrative data to track unplanned readmissions of patients with stroke. A study of more than 180,000 stroke admissions found that the presenting symptom most commonly missed was dizziness, a symptom disproportionately affecting women, minorities, and young patients.

By mining administrative data, we can also track diagnostic performance for other acute problems where early, unplanned readmissions are a marker of missed diagnosis. Novel, device-based techniques for preventing these common stroke misdiagnoses are currently being studied in a Phase II clinical trial.

Another example, in the ambulatory setting, was provided by a review of several studies using data mining of the electronic health record (EHR) [Singh H et al., BMJ Safety Qual, 2014]. One of the studies was designed to detect lab findings possibly indicative of colorectal cancer that were not followed up, or “unattended results.” Cases not followed up can result in missed diagnosis and lost chance for survival, which many will recognize as a frequent cause of claims.

This research method proved successful in detecting those unattended results. That represents a great advance and a great opportunity—to have an effective method for early detection of colorectal cancer. This method can be communicated to other institutions and used to reduce mortality.

AHRQ has invited more applications for research grants in the ambulatory setting, which will hopefully lead to more great results. I should also let your readers know about a new journal for following these research findings. It’s called Diagnosis, and it is free online to anyone.

Q: You described how the EHR can help with research. How else can information technology help or hinder diagnosis?

Newman-Toker: As I mentioned, the EHR has immense potential to help in research and surveillance to improve diagnosis. But it also has the potential to make diagnosis more difficult, when the data display is counterintuitive, navigation is difficult, or the software is improperly configured. Other dangers include limited interoperability across systems, upgrade glitches, corruption of data, and crashes.

The major problem that has gone largely unaddressed so far is that there is a difference between an electronic data repository (most cur-
“By mining administrative data, we can also track diagnostic performance for other acute problems ...”