Partnership for Health IT Patient Safety

Partnership Update

December 2017

Partnership for Health IT Patient Safety

Transforming Health IT by Embedding Safety

The Partnership for Health IT Patient Safety held its fourth annual in-person meeting, Transforming Health IT by Embedding Safety, on November 15, 2017. The stellar group of participants included clinical leaders, health information technology (IT) vendors, hospital representatives, professional organizations, government agencies, safety scientists, and researchers. They heard from Kenneth W. Kizer, MD, MPH, Director, UC Davis Health Institute of Population Health Improvement, who spoke about transformation; Janet Marchibroda, Director, Health Innovation Initiative, Bipartisan Policy Center, who spoke about the policy landscape and its impact on change; and David W. Bates, MD, MSc, Co-Director of the Program in Clinical Effectiveness at the Harvard School of Public health and Chair of General Internal Medicine and Primary Care at Brigham and Women's Hospital, who talked about real-world features and functions to embed safety in daily workflows. It was a day of collaboration, interaction, and shared learning.

The attendees responded positively to Dr. Kizer's suggestions, agreeing on the importance of promoting a clear message about safety. Participants have been invited to join a messaging workgroup as a follow-up to Dr. Kizer's call to action. Please respond to hit@ecri.org, using the subject line "Messaging workgroup" if you are interested in participating.

The *Partnership's* safe practice recommendations, part of the workgroup Developing, Implementing, and Integrating a Health IT Safety Program, were introduced along with the draft toolkit. Comments on these materials, available here, are due December 4, 2017. Findings from the Closing the Loop workgroup were introduced, along with the draft safe practices for Closing the Loop on Diagnostic Testing and Medication Changes to Mitigate Delayed, Missed, and Incorrect Diagnoses. Expert panels for each of these workgroups allowed for lively discussion on health IT.

Following breakout sessions, which focused on ideas for safety standards in documentation, patient identification, and clinical decision support, the attendees exchanged ideas for further investigation. The day concluded with discussion of a variety of implementation projects. If

Expert Advisory Panel

David W. Bates, MD, MSc
Kathleen Blake, MD, MPH
Pascale Carayon, PhD
Tejal Gandhi, MD, MPH
Chris Lehmann, MD
Peter J. Pronovost, MD, PhD
Jeanie Scott, MS, CPHIMS
Patricia P. Sengstack, DNP, RN-BC, CPHIMS
Hardeep Singh, MD, MPH
Dean Sittig, PhD
Paul Tang, MD, MS

The *Partnership for Health IT Patient Safety* is sponsored through funding from the Gordon and Betty Moore Foundation.

you are interested in contributing to studies on implementation of the *Partnership's* safe practices, please contact us at hit@ecri.org.

What have you done to implement the *Partnership's* safe practice recommendations?

We would like to hear about your implementations! More specifically, tell us what recommendations you have implemented, what process you used to roll out these recommendations, what barriers you faced, how you overcame them, and what you are doing now. If you are willing to share your story, email us at hit@ecri.org and we can discuss what you are doing to make healthcare safer in your organization. By sharing your stories we can make healthcare safer together.

Partnership Workgroup Update:

THANKS! ***Partnership*** **Workgroup 4, Closing the Loop on Diagnostic Testing and Medication Changes to Mitigate Delayed, Missed, and Incorrect Diagnoses,** held its last meeting on October 17, 2017. A big thank you to the workgroup chair Christopher Lehmann, MD, and all the *Partnership* collaborators who participated in this workgroup. The workgroup is drafting the safe practice recommendations.

Partnership **Messaging Workgroup:** Attendees of the in-person meeting, heard Dr. Kizer discuss messaging and its importance in transformation. The *Partnership* will convene a messaging workgroup to begin in December 2017, meeting 12:00 to 1:00 ET, Wednesdays, on the dates below:

- December 6 and 20, 2017
- January 10 and 24, 2018
- February 7 and 21, 2018

Interested in participating in this important multi-stakeholder workgroup? Please respond to hit@ecri.org by **December 4, 2017**.

SAVE THE DATE: *Partnership* Quarterly Call 2018

Tuesday, January 23, 2018
3:00 - 4:00 PM ET

Data Snapshot: UPDATE - Patient ID, Troublesome Technology or Poor Implementation?

Background

In February 2017, the *Partnership for Health IT Patient Safety* published Health IT Safe Practices: Toolkit for the Safe Use of Health IT for Patient Identification. Since that time, much attention has been given to the topic of patient identification. Today, new technologies are available to improve patient identification: fingerprints, iris scans, palm vein scanning, photos, and barcoding. The most commonly used technology is barcoding. One of the most common uses of this technology is bar code medication administration (BCMA). BCMA is designed to prevent medication errors in healthcare settings and improve the quality and safety of medication administration. The benefits of BCMA are many. However, as with any new technology there are also potential pitfalls. It is imperative to give careful attention to human factors, clinical workflows, system functionality, and software architecture during the implementation process. Collaboration among all stakeholders, including endorsement and support of leadership, is key.

Events Reviewed

Partnership recommendations address the issues of using new technologies to improve identification and leveraging ways to better use existing technologies for safe patient identification. However, it is important to recognize that poorly implemented technology poses potential safety problems.

- In one event, the BCMA system was unable to be fully utilized. The armband containing the barcode irritated premature infants' skin. The armbands were removed and unavailable for scanning. Accurate identification of the infants was not being performed.
- In another event, an unresponsive patient in need of emergent treatment for hypoglycemia (low blood sugar) had no armband. None of the staff could recall the emergent code to bypass the armband scan to permit the dispensing of the needed medication. As an alternative, an armband that was intended for another patient was scanned so that the needed medication could be dispensed. However, that resulted in the medication being recorded for the wrong patient.
- In a third example, a patient was given 30 mg of Toradol intravenous push (IVP) instead of the 15 mg of Toradol IVP that was prescribed. The patient was in intense pain. In attempting to remedy the patient's discomfort, the nurse had bypassed the armband scanning. In addition, she was looking at another patient's screen in the electronic health record (EHR), which resulted in the patient being given twice the dose that was prescribed.

Contributing Factors

Although new patient identification technologies are available, barcoding is one of the oldest and most widely used. The overarching safety issue in the above events is not with the technology itself but with its implementation. The events are examples in which the situation required some variation of procedure. Problems can occur when the work prescribed does not match the actual workflow. The events were caused by mismatches between the workflow and health IT and faulty product design, which resulted in workarounds. Other contributing factors include workload and/or inadequate training during implementation. Often contributing factors such as these are not discovered until after the technology is implemented.

Lessons Learned

The key to using these and other technologies is to follow a thorough implementation plan. Having the right matching tool does not guarantee the correct patient has been identified. As with any technology, when considering implementation, a number of safe practices apply: use cross-functional teams in planning, evaluate the present workflow before implementing new ones, ensure that the new technology fits the workflow instead of the workflow fitting the system, and provide ongoing monitoring and evaluation, feedback, and resolution, soliciting user input. Consider using simulation testing on the product and workflow before purchasing the software, and work with the vendor to build and test modifications that suit the clinician workflow.

In the first example, if simulation testing had occurred using a variety of patients of differing shapes and sizes, including premature infants, the irritation to the premature infant's skin might have been uncovered. The issue could have been addressed during the design and retooling phase.
Follow an implementation process that includes the following steps:

- Select sites
- Identify stakeholders and champions
- Evaluate current clinical practices
- Identify workflow sites impacted
- Design and retool based on safe clinical practices
- Train stakeholders
- Deploy
- Monitor and evaluate

- Seek feedback and modify

In the case of these reported events, having a good implementation process in place could have made the difference between patient harm and proper patient identification and treatment. Failure to properly prepare for "go-live" of any new technology can have detrimental effects.

Collaborating Organizations

Need to Submit an Event?

Partnership participants can submit events through your membership portal.

If you need assistance, please contact us at hit@ecri.org.

Get in Touch with the Partnership

Do you have questions about any of these articles? Get in touch with us today by e-mailing hit@ecri.org. If you wish to submit information for this publication, please submit items for the Update using the subject line "Partnership Update" to hit@ecri.org.

The *Partnership for Health IT Patient Safety* is sponsored through funding from the Gordon and Betty Moore Foundation.

GORDON AND BETTY MOORE FOUNDATION

This email was sent by:
ECRI Institute
5200 Butler Pike
Plymouth Meeting, PA 19462-1298
USA
Telephone: +1 (610) 825-6000