

## **Partnership for Health IT Patient Safety**

Partnership Update  
February/March 2015

Please continue to submit your events using the *Partnership's* or your PSO's portal. During February and March, we are interested in your submissions for copy-and-paste events, mitigation strategies, and your processes and procedures addressing copy-and paste activities in your organization.

However, you are not limited to submitting information about copy-and-paste issues. We ask that you continue to submit health IT-related events through the PSO and/or *Partnership* portal.

As always, we welcome your contributions to the *Partnership* Update. Please submit items with the subject line "Partnership Update" to [hit@ecri.org](mailto:hit@ecri.org).

### **Data Snapshot: Overriding Medication Alerts**

Data Snapshot information is de-identified and comes from reports to the *Partnership* and all-cause harm databases.

#### **Background**

Alerts are typically incorporated into the order entry portion of electronic health records to improve patient safety. Drug-drug interactions, drug-allergy issues, drug-dose, drug-lab, drug-pregnancy, and duplicate or incorrect medication dosages are often triggers for an alert or flag. "Alerting" varies from system to system and is not restricted solely to medication issues. Issues involving alerts are multifaceted and socio-technical in nature and frequently target different user populations.

#### **Event Review**

The events reviewed here are medication alerts that were overridden.

The first report we will look at is one in which a patient received duplicate anticoagulants. The anticoagulants heparin



#### **Expert Advisory Panel**

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#### **Collaborating Organizations**

Association for the Advancement of Medical Instrumentation (AAMI) • American Association for Physician Leadership (AAPL, formerly ACPE) • American Health Information Management Association (AHIMA) • American Medical Association (AMA) • Association of Medical Directors of Information Systems (AMDIS) • American Medical Informatics Association (AMIA) • American Organization of Nurse Executives (AONE) • American Society of Anesthesiologists (ASA) • California Hospital PSO • College of Healthcare Information Management Executives (CHIME) • Council of Medical Specialty Societies (CMSS) • Healthcare Information and Management Systems Society (HIMSS) • Institute for Safe Medication Practices (ISMP) • Kentucky Institute for Patient Safety and Quality • MCIC Vermont, LLC • Michigan Hospital Association PSO • Midwest Alliance for

and rivaroxaban were ordered, verified, and administered. Two individuals, at various times, overrode the alert notifying them that there was duplication. Both overrides stated the same justification: "benefits outweighed the risks."

In another anticoagulant example, two individuals, the ordering physician and the pharmacist, overrode an alert indicating that the order was for a higher-than-normal dosage of the anticoagulant dabigatran. The order was intended as a single loading order. This dose (300mg/day with no end date) was inappropriate for a patient with impaired renal function. A second pharmacist identified the issue and questioned the dosage for this patient. The dosage was later changed to an appropriate dose for this patient.

In another event, a nurse overrode the alert "administering too early." In this event, the patient stated she had not received her nightly dose of ropinirole for treatment of restless leg syndrome, indicating that she would be unable to sleep without it. (Ropinirole is administered once a day one to three hours prior to bedtime for the treatment of restless leg syndrome.) Here, the patient received the medication at 1729 and again at 2244.

Another health IT-related risk was seen in a near-miss report. A potential risk for a drug overdose upon discharge from a facility arose because a nonformulary medication did not trigger an alert for drug-drug interactions and duplications. Nonformulary (those medications not on the list of medications typically available at the hospital) medication alerts are not an issue while the patient is in the hospital, because there is usually a formulary substitution. However, when a patient is discharged, the patient may run the risk of resuming the nonformulary medication in conjunction with the medication that they were taking during their hospitalization, resulting in an overdose.

### **Contributing Factors**

There are multiple contributing factors to events involving overriding alerts. One common contributing factor is "alert fatigue." Often there are too many interruptions occurring too frequently with little apparent value and appearing to the provider as an alert, a warning, or informational text. As such, providers may move quickly, disregarding or entering a nonsensical response and bypassing the alerts so as not to disrupt their workflow further.

In other instances, providers may not understand how to clearly identify special orders, such as a "once only" dosage that may be followed by a different maintenance dosage or

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even a discontinuation of the drug. This intention for a “once only” dose may cause the provider to disregard an associated alert (high dosage), since their intent may have been to administer a starting or loading dose (an acceptable high dosage), which will later be reduced.

Overridden alerts can extend beyond medication orders, as above, and can carry over to administration when busy providers rely on external factors such as patient recall of administered medications.

### **Health IT–Related Risk Factors**

An important technology consideration is the type (e.g., soft stop, hard stop) and appearance (e.g., screen color, icon) of the alert. Alerts in different organizations or facilities may appear altered or require dissimilar actions even if the alert is for the same combination of interactions (e.g., drug-drug, drug-allergy).

Some alerts trigger “hard stops” (the provider cannot enter any other information until this alert is addressed). Other alerts may appear as pop-ups that must be closed but do not impede data entry. Still others may only appear when hovering over the text.

### **Lessons Learned**

Alerts do prevent patient safety events when they are properly functioning and turned on. Alerts that fire frequently for every type of interaction with little apparent value to users are often disregarded. Identifying and standardizing the appearance, frequency, and types of alerts across systems for high-risk situations may prove beneficial in preventing patient safety issues. Additionally, checking a system by using tools like the [SAFER Guides](#) may help identify the effective use of alerts.

Please send your comments and suggestions to [hit@ecri.org](mailto:hit@ecri.org). Remember, if you are submitting events, please use your secure communication portal.

## **Upcoming Partnership Events:**

**Proceedings:** The proceedings from Partnering for Success, including video interviews, are available from [the Partnership website](#) or from the [Partnership landing page](#).

**Quarterly Meeting:** Materials and the recording from the January 20, 2015, quarterly meeting are posted on the *Partnership* password protected landing page. If you don't already have access please write to us at [hit@ecri.org](mailto:hit@ecri.org).

**HIMSS:** Meet us at HIMSS in April 2015:  
*Wednesday, April 15<sup>th</sup>*  
*1:30 - 4:30 PM*  
*McCormick Place, Room S106*

**Copy and Paste Workgroup:** First meeting March 2<sup>nd</sup>. Please continue to submit events through the *Partnership* portal.

## **Copy-and-Paste Safety Workgroup to Convene**

The *Partnership's* first workgroup is set and will meet monthly beginning on March 2. This group will identify specific goals and tools to ensure that copy-and-paste is used in a manner

that mitigates safety issues. While you may not have signed on to attend the meetings, we still need your participation!

We ask that all of the *Partnership's* participants contribute at least one copy-and-paste event by entering the information into the web-based reporting system accessed through the *Partnership* portal. If you need access, contact us at [hit@ecri.org](mailto:hit@ecri.org).

Additionally, please share your processes or practices for mitigating safety issues that arise when copy-and-paste is used. Your participation will make this workgroup a success.

## **HIMSS Announces 2014 Award Recipients**

ECRI Institute is proud to announce that Erin M. Sparnon, MEng, ECRI Institute's Health Devices Group engineering manager and contributor to the *Partnership for Health IT Patient Safety*, will be honored as the recipient of the 2014 ACCE-HIMSS Excellence in Clinical Engineering and Information Technology Synergies Award at HIMSS 2015.

The award recognizes leadership in implementing and promoting alliances between the clinical engineering and information technology professions. HIMSS will acknowledge the 2014 award recipients for their contributions to HIMSS's mission of transforming healthcare through the effective use of health IT in April at the 2015 HIMSS Annual Conference & Exhibition. See the list of all award and scholarship recipients at: [HIMSS 2015 Award and Scholarship Recipients](#).

### **Need Help Logging In?**

Have a question that we can answer? Please contact Lorraine Possanza at 610-825-6000 ext. 5634 or at [lpossanza@ecri.org](mailto:lpossanza@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](mailto:hit@ecri.org)!

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