Time for Alert-ology or RE-sensitization?

In their case report in this issue of Pediatrics, Carspecken et al describe a child for whom the diagnosis of furosemide allergic hypersensitivity was delayed due to false-positive allergy alert overrides to other drugs. Although articles demonstrating the incidence and prevalence of alert fatigue are not new, I compliment Carspecken for the transparency as to how fatigue from false-positive electronic medical record (EMR) alerts may have adversely affected patient care. I am sure that most of us can review the case report, as can the authors, and will be able to pick apart many case details and see where improvements in the process of care could have been made. As we critique the events as described in this report, I hope that we do so, however, in the spirit of curiosity and in the context of using this case report to foster a culture of safety.

The authors have demonstrated a real series of events with alerts that all of those who use an EMR can identify with or are probably fearful about encountering in an inpatient setting. There is now enough evidence to show that, in general, the use of EMR alerts as visual cues is not nearly as effective as initially imagined. Borrowing a term used in psychology, a constant barrage of alerts can "desensitize" us. This case report should serve as a wake-up call to demonstrate how outcomes could be affected as a result of being desensitized.

Alerts are designed, for the most part, to guide general decisions similarly to what the early version of care guidelines were meant to accomplish. But, as was the experience with these guidelines, there is often insufficient compliance or applicability to sound bedside clinical judgment. Once someone is desensitized to alerts, however, the significance of these alerts when they are actually true positives can be missed.

This case report highlights the need to formally study alternative approaches to the general use of alerts within the EMR. New methods are needed to deliver the message intended by the use of the current EMR alert process, which, as demonstrated in this report, is bringing forth a new type of error that has a real impact on outcomes.

At the same time, clinicians must always remember that the EMR and alerts are simply tools to assist in clinical documentation and communication; these tools currently should neither replace nor minimize accountability that occurs through daily physical examination and reassessments. We need to possess self-discipline and foster that discipline in those we train and mentor to rely not on previous clinical decisions but to perhaps use alerts as teaching “cues” to remind us to take a fresh look at our patients, or if an alert is not applicable, then to eliminate it so we do not become desensitized to other more prevalent alerts.

AUTHOR: Stephen T. Lawless, MD, MBA
Nemours/Alfred I. duPont Hospital for Children, Wilmington, Delaware

KEY WORDS
alert fatigue, EMR

ABBREVIATION
EMR—electronic medical record

Opinions expressed in these commentaries are those of the author and not necessarily those of the American Academy of Pediatrics or its Committees.

doi:10.1542/peds.2013-0864
Accepted for publication Mar 28, 2013
Address correspondence to Stephen T. Lawless, MD, MBA, Vice President of Quality and Safety, Nemours 1600 Rockland Rd, ARB-100, Wilmington, DE 19803. E-mail: stephen.lawless@nemours.org

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275). Copyright © 2013 by the American Academy of Pediatrics

FINANCIAL DISCLOSURE: The author has indicated he has no financial relationships relevant to this article to disclose.

FUNDING: No external funding.

COMPANION PAPER: A companion to this article can be found on page e1970, and online at www.pediatrics.org/cgi/doi/10.1542/peds.2012-3252.
If the reliance on alerts results in either the purposeful or fatigue-induced deterioration of clinical assessment and decision-making skills, then alternative messaging techniques should be sought and studied. Much research has been done in the field of desensitization, and now is the time to apply those findings to the use of the EMR.

**REFERENCE**

Time for Alert-ology or RE-sensitization?
Stephen T. Lawless

*Pediatrics* 2013;131:e1948; originally published online May 27, 2013;
DOI: 10.1542/peds.2013-0864

<table>
<thead>
<tr>
<th>Updated Information &amp; Services</th>
<th>including high resolution figures, can be found at: <a href="http://content/131/6/e1948.full.html">content/131/6/e1948.full.html</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Citations</td>
<td>This article has been cited by 2 HighWire-hosted articles: <a href="http://content/131/6/e1948.full.html#related-urls">content/131/6/e1948.full.html#related-urls</a></td>
</tr>
<tr>
<td>Subspecialty Collections</td>
<td>This article, along with others on similar topics, appears in the following collection(s): <em>Health Information Technology</em> <a href="http://cgi/collection/health_information_technology_sub">cgi/collection/health_information_technology_sub</a>, <em>Electronic Health Records</em> <a href="http://cgi/collection/electronic_health_records_sub">cgi/collection/electronic_health_records_sub</a></td>
</tr>
<tr>
<td>Permissions &amp; Licensing</td>
<td>Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: <a href="http://site/misc/Permissions.xhtml">site/misc/Permissions.xhtml</a></td>
</tr>
<tr>
<td>Reprints</td>
<td>Information about ordering reprints can be found online: <a href="http://site/misc/reprints.xhtml">site/misc/reprints.xhtml</a></td>
</tr>
</tbody>
</table>
Time for Alert-ology or RE-sensitization?
Stephen T. Lawless
Pediatrics 2013;131;e1948; originally published online May 27, 2013;
DOI: 10.1542/peds.2013-0864

The online version of this article, along with updated information and services, is
located on the World Wide Web at:
/content/131/6/e1948.full.html