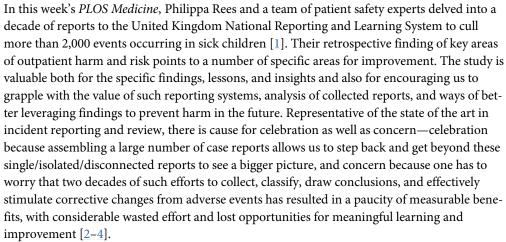


PERSPECTIVE

Sick Children Crying for Help: Fostering Adverse Event Reports

Gordon D. Schiff^{1,2}*

- 1 Center for Patient Safety Research and Practice, Division of General Internal Medicine, Brigham and Women's Hospital, Boston, Massachusetts, United States of America, 2 Harvard Medical School Center for Primary Care, Boston, Massachusetts, United States of America
- * gschiff@partners.org



While not a pediatrician, as a primary care physician and patient safety researcher I have spent considerable time both submitting and reviewing safety reports [5,6]. At one point, I had filed more error and adverse drug reactions reports than all the other physicians at my public hospital in Chicago combined, making me either the institution's most dangerous prescriber or its most diligent reporter [7]. Hoping it is more the latter, it is sobering to consider how infrequently adverse events and errors are being reported. Not only are we missing many adverse events, but those being reported likely are not perfectly representative of all errors that are occurring [8]. Thus, it is neither advisable nor fair to use report rates (or changes in rates) as measures of the epidemiology of quality or improvement efforts. Thus, I would caution readers to be wary of accepting the authors' opening suggestion that we can correlate these reported safety issues with poorer outcome measures or higher mortality rates of the United Kingdom relative to other European countries.

But what about the reports themselves—this wealth of rich case examples of actual problems transmitted straight from the front lines? We certainly have a debt to those who took the time and effort and perhaps even took risks to report these adverse events and owe them (as well as patients who may have been harmed) meaningful follow-up, learning, feedback, sharing, and improvement. In-depth examination both horizontally (to connect the reports with each other to see aggregate data and trends) and vertically (to dig deeper, delving into the rich details of the free-text narrative details that accompany a good report) as the authors have done is needed, yet is more often the exception than the rule. While I am not aware of any



OPEN ACCESS

Citation: Schiff GD (2017) Sick Children Crying for Help: Fostering Adverse Event Reports. PLoS Med 14(1): e1002216. doi:10.1371/journal. pmed.1002216

Published: January 17, 2017

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Funding: The author received no specific funding for this work.

Competing Interests: The author has declared that no competing interests exist.

Provenance: Commissioned; not externally peer reviewed.



studies that have quantified the extent of this failure, this waste, and these wasted opportunities, I suspect it is huge.

A key aspect of meaningfully bringing together these reports is classification of the events. Thinking critically about this step is necessary to avoid compounding empty collecting exercises with pointless taxonomy counting rituals. Analysis should breathe additional life into safety reports, rather than simply "putting them to bed." What does a vision of such breathing life look and feel like, and to what extent does the Rees et al. work give us a glimpse of it?

Two key ingredients in my view are (1) careful, timely review and contemplation of report narratives and (2) envisioning the ways such an event could happen elsewhere with an eye to error-proofing redesign. Basic quality improvement conceptual tools such as a) the "5 Whys" (digging progressively deeper by asking "why" five times to get to the root of underlying contributing causes) [9], b) distinguishing "special cause" from "common cause" (a statistical process control tool begging for more use in health care), c) minimizing "tampering" (well-meaning attempts to make changes that can introduce more variation and quality problems), and d) avoiding "suboptimization" (another improvement pitfall whereby changes are recommended or made that may help a narrowly conceived problem but create a more complex and dysfunctional system overall) need to be applied more regularly and rigorously [10,11].

With this perspective, how does the study by Rees and colleagues help move us forward? One way is by shining a light on two somewhat new or mostly untapped venues for collecting errors and adverse event reports—community pharmacies and telephone triage call centers. These two settings led the pack in reports of issues, which originated from and illustrated a number of vulnerabilities of special relevance to a pediatric population—particularly, special dosing/dispensing considerations (often requiring individualized medication compounding) and delays in recognizing septicemia. Also noteworthy was the finding that diagnostic delays had the highest burden of harm, something we have also argued and seen in malpractice cases [12]. Diagnostic errors are relatively infrequently reported to adverse event reporting systems, so finding substantial numbers here suggests this is the tip of a larger iceberg [13].

In their list of contributing causes, one item jarringly stands out both for its frequency and disharmony with a systems and just culture perspective: "failure to follow protocol" [14]. Were such reports perhaps more akin to incident reports submitted by supervisors to "write up" an employee who may have committed an error as documentation for the employee's personnel record and as a warning? To the extent these reports were grounded in a retributive workplace culture, rather than a more ideal model of frontline staff submitting reports of errors or problems that they had seen, been involved with, or personally committed, based on caring deeply about the need to share these widely to help others avoid such pitfalls, these reports fulfill a less noble and valuable function.

Lest we throw out the babies with the bathwater, we need to listen carefully to these incidents, analyze them, and act on them better (Table 1). Safety experts are debating and rethinking incident reporting on multiple continents [4,15]. Meanwhile, there is much to be learned from these reports, and the paper by Rees and colleagues just scratches the surface. Quality and learning and improvement from incident reporting need to be supported and enhanced at every step, but currently, there is a paucity of resources, responsiveness, and responsibility to do this well [16,17]. For these children and their parents, each institution should use these reports to ask and examine the questions: is this happening here; if so, how often; and how can we work at the front line and at the larger health authority level to make sure such incidents are less likely in the future [16]?



Table 1. Framework for Nurturing Reporting: Opportunities/Imperatives for Incident Reporting Improvement.

Front End: Detecting and Reporting

Buy-in: to motivate engagement, making effort

Noticing: being alert to everyday errors, large and small; process; and outcome

Streamlined automated reporting structures and processes to make it easy to file reports and to capture relevant data/narrative

Avoiding blame and fear

Creating a culture where everyone views sharing problems as fun, fundamental, and integral to work

Review: Investigation and Analysis

Classifying: availability/use of parsimonious, rich, and reliable taxonomies

Delving deeper into narratives; coding themes

Meaningful additional *investigation* of the case/issues, including (where appropriate) reaching out to frontline staff for additional input

Connecting across cases to identify patterns

Hypothesizing and proposing ways to prevent

Statistical; data mining sweeps through reports and narratives

Back End: Learning and Improvement

Differentiating system/systematic (common cause) versus outlier (special cause) types of adverse events

Formulating, consensus process for recommendations, improvements to test

Widespread communication of findings

Integrating awareness of the risk (situational awareness) into daily practice, workflow (visual cues and CDS)

Feeding back findings directly to reporting staff/institutions and hearing back from them regarding further follow-up and response to recommendations

Revisiting issues; monitoring over time

Abbreviations: CDS, clinical decision support

doi:10.1371/journal.pmed.1002216.t001

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