EBOOK SERIES

TURN INCIDENT REPORTS INTO RESULTS
Executive Summary

Information from effective patient safety incident reporting systems has proven to be of great value to hospitals and health systems as they strive to make care safer. Most hospitals today have a program for reporting and monitoring patient safety incidents but there are still many opportunities to make these processes more effective and convenient. There are also several persistent barriers that can limit the use and effectiveness of incident reporting programs. Up to 86 percent of reportable events go unreported, according to one study. Lack of participation undermines hospital leaders’ ability to identify and address risks to patient safety.

A growing body of research is identifying how incident reporting can be improved. One such study identified the five top reasons why incident reporting has not reached its potential:

1. Inadequate Report Processes
2. Lack of Adequate Medical Engagement
3. Insufficient Action
4. Inadequate Funding and Institutional Support
5. Failure to Capture Evolving Health Information Technology Developments

This white paper presents guidance on how to overcome these limitations to produce safety and quality improvements, using additional research, case studies and observations.
Introduction

The landmark To Err is Human report released by the Institute of Medicine (IOM) in 1999 recommended that hospitals institute adverse event reporting, and proved to be a catalyst for such programs. In 2015 a group of researchers led by Imogen Mitchell sought to assess the impact To Err is Human had on incident reporting. Their resulting report, Patient safety incident reporting: a qualitative study of thoughts and perceptions of experts 15 years after ‘To Err is Human’ found incident reporting programs had proliferated. However, patient safety has not improved at the same level of incident reporting adoption. The Mitchell study sought to identify the limitations of incident reporting programs. It identified the five leading limitations that were listed above and concluded:

\[\text{The future of incident reporting lies in targeted incident reporting, effective triaging and robust analysis of the incident reports and meaningful engagement of doctors. Incident reporting must be coupled with visible, sustainable action and linkage of incident reports to the electronic health record. If the healthcare industry wants to learn from its mistakes, miss or near miss events, it will need to take incident reporting as seriously as the health budget.}\]

Studies have documented that hospitals experience problems at every stage of incident reporting: collecting data, producing reports, having reports read by the right people, and getting staff from the bedside to the C suite to take action. Problems could cause professionals to question the value of incident reporting and to resent it as an unwelcome task that takes time away from patients, rather than a tool that supports safety and quality improvement.

Just as there are studies that document the challenges of effective incident management, there are testimonials from hospitals as to how successful programs have produced the data and insight they needed to improve safety and quality. For example, an acute care hospital in Ontario, Canada successfully increased reported incidents, and used what it learned from the additional data to make a variety of processes more safe. The range of improvement opportunities was wide and surprising. Resulting changes included how samples are taken and labeled, how medications are stored in the ER and how infusion pumps are prepared, plus several novel, unexpected changes.\[4\]
The hospital was able to make the changes and improvements because it had enough reports and data points to draw meaningful conclusions. It is relatively easy to make ad hoc changes in responses to a specific incident. Deeper insights into the causes and effects of patient safety incidents is need to make effective changes that will provide sustainable benefits and support continuous improvement. To get to that level, hospitals need to make it easier to report incidents, analyze the results, and communicate them to the people who can make a difference.

The following sections provide guidance to overcoming obstacles the Mitchell report identified to effectively collecting, analyzing and using incident reports in hospital and health system settings.
Perhaps ironically, the most significant challenge hospital leaders cite for incident reporting is the reporting process. Consider the following findings and observations from various studies:

- “Information regarding one-quarter of events was not accessible to the staff responsible for monitoring patient safety within the hospitals and for making policy changes.”\(^5\)
- “There were often insufficient resources to deal with this volume of reports, leaving reports inadequately triaged, clustered, analyzed or acted upon.”\(^6\)
- “In addition to lack of physician reporting, most hospitals surveyed did not have robust processes for analyzing and acting upon aggregated event reports. Failure to receive feedback after reporting an event is a commonly cited barrier to event reporting by both physicians and allied health professionals.”\(^7\)
Outdated reporting tools contribute to these problems because they rely on manual data entry and analysis. In contrast, modern incident reporting and management software can improve report quality and the reporting process. The software can prompt reporters to include all pertinent information, can automatically classify incident reports by type and severity of incident, and automate parts of the notification and follow-up processes. Report generation and distribution can be automated and executed according to user-defined parameters. For example, the system could be set to automatically notify the chief of surgery, chief quality officer and director of risk management every time there is a report of a foreign object left behind during surgery, while incidents of medications being administered five minutes late could be noted in a monthly report distributed to lower-level managers. This flexibility helps reduce report fatigue while still ensuring prompt reporting of high-profile events.

Software tools can improve the quality of incident reports because some solutions provide notification of risk triggers, initiate peer review, and/or can integrate with trigger tools and other systems to support active surveillance. Capabilities like these could help hospitals transform their incident reporting programs from something that primarily informs people of incidents to something that provides insight that can prevent future adverse events. As the U.S. Department of Health and Human Services Office of the Inspector General (OIG) reported:

"Because hospitals rely on incident reporting systems to track and analyze events, improving the usefulness of these systems is critical to hospital efforts to improve patient safety." 8
A consistent theme was the lack of engaging doctors to report, own or lead the incident reporting process. This lack of engagement resulted in reporting bias frequently from the nurses and skewing the data.

“Although there is no shortage of reports being submitted, reports are rarely submitted by doctors, limiting the types of events reported and thereby learnings for the organisation.”

Other researchers have also identified these and other problems with insufficient physician reporting.

- “Nurses most often reported events, typically identified through the regular course of care.” ⁹
- “Low physician reporting is problematic because it hinders the ability to identify and mitigate risks. Physicians view health care through a unique lens, which allows them to identify certain types of hazards and certain contributing factors better than others.” ¹⁰
- “Increasing the reporting of physician incidents will be essential to enhance the effectiveness of hospital reporting systems; therefore, barriers to reporting such incidents must be minimized.” ¹¹
The top five barriers to incident reporting cited by physicians are presented in Figure 1 below.

<table>
<thead>
<tr>
<th>RANK</th>
<th>BARRIER</th>
<th>% OF PHYSICIANS THAT CITED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No feedback on incident follow-up</td>
<td>57.7%</td>
</tr>
<tr>
<td>2</td>
<td>Form too long; lack of time</td>
<td>54.2%</td>
</tr>
<tr>
<td>3</td>
<td>Incident seemed “trivial”</td>
<td>51.2%</td>
</tr>
<tr>
<td>4</td>
<td>Ward was busy, forgot to report</td>
<td>47.3%</td>
</tr>
<tr>
<td>5</td>
<td>Not sure who is responsible to make report</td>
<td>37.9%</td>
</tr>
</tbody>
</table>

Totals exceed 100 percent because physicians could cite multiple barriers.


Incident management software could address several of the leading barriers to physician reporting. Well-designed software is intuitive, easy to use and will provide prompts to guide users through the process. Some incident management software solutions can be accessed on mobile devices. These features help improve physician engagement by making the reporting process much more convenient and accessible than manual processes.
A Chicago-area system can attest to those benefits: after it converted from a manual forms-based process to incident management software, its percentage of incidents reported by physicians more than tripled. Similarly, a New Orleans-based health system credits its incident reporting software solution for helping to drive a 20 percent increase in reported incidents. 12

The Mitchell report commented on the beneficial effect electronic reporting systems can have on incident reporting:

“Many of the participants commented that the digitisation of submitting an adverse event report had significantly eased the process of report submission. Others also commented that the dissemination of relevant adverse event information had been facilitated by the era of electronic technology.”
One of the most effective ways to improve physician engagement is to demonstrate that incident reports lead to follow up and are not just filed and forgotten. “Insufficient Action” was one of the leading limitations to incident reporting programs cited in the Mitchell study and aligns with “No feedback on incident follow-up,” which was the leading barrier cited by physicians in a separate study (Figure 1).

To overcome physician non-participation, hospitals first must ensure that relevant reports reach the right people. As previously noted, the OIG found that information about a quarter of reported events was not available to staff members responsible for patient safety. Report distribution problems can be easily solved, and incident reporting software can serve as the enabling technology. The bigger challenge is whether reports will be acted on. That question probably has more to do with organizational culture than the content of a report or its distribution list.

The Mitchell report discussed how lack of follow up discourages robust reporting:

“Insufficient Action’

Later, it suggested how incident reporting systems could help ensure action is taken on incident reports:

The next generation of reporting systems must be visibly linked to effective action that can be easily monitored and evaluated to provide the evidence that doctors need in order to engage.”
Several organizations that have successfully improved patient safety built feedback mechanisms into their incident reporting programs. For example, one sends notification of any action taken as a result of incident reports to everyone who reported an incident in the preceding month and to all admin-level users. The reports are distributed by blind copy email to protect the confidentiality of reporters. The organization also created a patient safety newsletter for larger distribution. The newsletter presents patient safety statistics, highlights any new processes or other actions taken, provides updates on improvement projects and provides other transparency into incident reporting and quality improvement processes. When another launched an initiative to reduce falls and pressure ulcers, it provided a weekly incident update report to managers to discuss on a conference call. A Missouri-based academic medical center committed to following up within two weeks to everyone who voluntarily submitted an incident report. It also established flow charts for communicating and following up on incident reports by department and role, and distributes several standard and custom reports.¹³

Modern incident management solutions foster the link between reporting and action by providing alerts, reminders and other safeguards to ensure that reports don’t fall into the proverbial “black hole” never to be seen again. Some systems allow reporters to track the status of incident reports they filed and to receive automatic updates about report-related activity. These features support the ideals and recommendations in the Mitchell report and provide the foundation of communication needed to advance patient safety efforts.
Inadequate Funding and Institutional Support

An incident reporting software system itself will not solve institutional funding and support issues. Reducing errors requires a commitment to improving safety and quality processes, a commitment that is deeper than implementing and maintaining an incident reporting system. Without commitment, systems may easily go unused or underutilized.

The following findings and statistics illustrate why ongoing commitment and support are needed to make incident reporting effective:

“...All sampled hospitals had incident reporting systems to capture events...” however “Hospital staff did not report 86 percent of events to incident reporting systems.”

“Despite most staff knowing that an incident reporting system existed, almost a quarter of staff did not know how to access an incident form or what to do with it once completed, and over 40 percent of consultants and registrars had never completed a report.”
Making sustainable improvements to patient safety requires both top-down and bottom-up commitment. Incident management systems may not have any special advantages for winning support from hospital executives, who are constantly faced with many worthy programs and technologies that are vying for their attention and funding. However, incident management systems can facilitate the support needed to make improvement programs effective by making it easy for nurses, physicians and other caregivers to report events and track results.

The “Lack of Adequate Medical Engagement” section of this paper described how software can make incident management reporting easier. One multi-specialty medical group in eastern Massachusetts provides a case in point. Its total amount of incidents reported and reports by physicians both increased after implementing incident reporting software. Still, incident reporting software is best viewed as a component of an incident reporting program and not as the driver of the program itself. As the Agency for Healthcare Research and Quality (AHRQ) Patient Safety Primer notes:

“...A successful event reporting system should be easy to use.... While event reporting utilization can be a marker of a positive safety culture within an organization, organizations should resist the temptation to encourage event reporting without a concrete plan for following up on reported events.”
While traditional event reporting systems have been paper based, technological enhancements have allowed the development of Web-based systems and systems that can receive information from electronic medical records. The report goes on to call incident reporting automation “inevitable.” Technology adoption was cited as a barrier even though it is acknowledged that many hospitals already have some type of incident reporting system in place. Incident management technology is evolving fast, and one of the barriers to improving the effectiveness of incident management programs is getting the most out of the technology. As the AHRQ Patient Safety Primer noted:

“While traditional event reporting systems have been paper based, technological enhancements have allowed the development of Web-based systems and systems that can receive information from electronic medical records.”
Modern incident management systems have more capabilities than previous-generation systems. Previous sections of this paper have provided examples of how modern incident reporting systems have convenient user interfaces that stimulate more submissions from doctors and other caregivers, save time by automating portions of the report generation and distribution process, and even enhancing accountability through features for tracking follow-up activity.

The next evolution of incident reporting software added the ability to integrate with electronic health record (EHR) systems and support for mobile devices. EHR integration is valuable because it can combine risk trigger surveillance technology built into the incident reporting system with real-time data input to the EHR to provide proactive alerts about potential risks. Such capabilities help incident reporting to evolve from systems that primarily document and report errors to solutions that play an active role in preventing errors from occurring in the first place. As the AHRQ states:

“Event reports must be combined with active surveillance methods, such as direct observation, trigger tools, or chart audit, to best identify and prioritize patient safety threats.”

Mobile support gives physicians and other users more flexibility as to when and where they can prepare and review reports. Improving accessibility of incident reporting also improves effectiveness, because it facilitates more reports being completed and submitted, and enables physicians to provide real-time input when they receive alerts.
Conclusion

Incident reporting programs at hospitals are commonly undermined by cultural, communications and technological barriers. Because incident reporting is an important early step for safety improvement, any shortcomings in the incident reporting and management process would hamper the overall effectiveness of quality and patient safety improvement efforts.

Modern incident reporting systems mitigate many of the leading barriers to effective incident management. They have been shown to help facilitate physicians to file more reports, make it easier to create, distribute and follow up on summary reports and recommendations, and help hospitals transform incident management from a reactive, reporting function to one that proactively contributes to improved patient safety.

About RL Solutions

RL Solutions designs innovative healthcare software for patient feedback, incident reporting & risk management, infection surveillance, peer review, root cause analysis and claims management. At RL Solutions, nurturing long-lasting relationships with our clients is what we do best. RL Solutions has over 1,600 clients, including healthcare networks, hospitals, long-term care facilities and more. RL Solutions is a global company with offices in Canada, the United States, Australia and the UK.

For more information, visit www.rlsolutions.com or follow @rlsolutions on Twitter.

RL Solutions' Incident Reporting & Management has earned the exclusive endorsement of the American Hospital Association.
Citations


3 Ibid.

4 The complete RL Solutions case study is available at: http://rlsolutions.com/RLSolutions/media/pdf/caseStudies/CreditValleyCaseStudyWeb.pdf


9 Ibid.


