Improving Inpatient Diabetes Management

Features

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“A baseline assessment of (1) providers’ knowledge of and attitudes regarding inpatient glucose management principles and (2) barriers to care are helpful in shaping policy and developing educational tools.”
—Golden, et al. (p. 197)
In September 2010 Kimberly Hiatt, an ICU nurse for 30 years with a very good reputation, accidentally gave an infant a tenfold overdose of calcium. This error likely contributed to the infant’s death five days later. In the aftermath, Ms. Hiatt was fired and lost her license and her reputation, despite concerns that systems issues had contributed to the error. After struggling to reclaim her reputation and her career, she ultimately committed suicide.1

It is now well established that medical error is a major contributor to patient harm.2 Even with appropriate clinical care, many patients suffer harm while receiving medical care.3 Although the health and financial costs of these adverse events on patients, families, and the overall health care system are enormous, their impact on the providers of medical care has only begun to be understood.

Wu used the term second victim to describe those who suffer emotionally when the care they provide leads to patient harm.4 Scott et al. found that 15% of 1,160 clinicians—physicians (attendings, fellows, residents, third- and fourth-year medical students), professional nurses (nursing managers/supervisors, registered nurses, and licensed practical nurses), and allied health (for example, pharmacists, respiratory therapists, nursing technicians)—reported “experiencing personal problems within the past 12 months, such as anxiety, depression, or concerns about their ability to perform their jobs, as a result of a clinical patient safety event,” of whom 15% seriously contemplated leaving their profession.5 In a follow-up study, the same authors found that an even greater proportion—30%—of 898 clinicians had experienced emotional distress after a major adverse event within the previous year.6 Edrees et al. found that two thirds of 140 clinicians surveyed at a patient safety meeting had experienced emotional problems related to an adverse event.7 The intraoperative death of a patient has been described as a “harrowing experience.”8 When Shanafeldt et al. asked American College of Surgeons members whether they had experienced suicidal ideation within the past year, 501 (6.3%) of the 7,905 surgeons responding reported suicidal thoughts—approximately twice the rate of the general population, and suicidal ideation was strongly associated with medical error.9 In Aasland’s and Forde’s survey, 368 (28%) of 1,294 Norwegian physicians were involved in an adverse clinical event, of whom 17% reported a significant impact on their personal lives.10 Clinicians’ feelings of guilt, responsibility, and failure are common after a patient’s death, even when the death is not due to medical error.8

Despite growing evidence that adverse events, particularly those related to medical errors, can have dire emotional consequences on health care providers, most clinicians do not receive adequate emotional support. On the contrary, only a minority (approximately 44%) of the more than 196,000 respondents to the Agency for Healthcare Research and Quality (AHRQ) Hospital Survey on Patient Safety Culture believed that their organization responds to clinician error in a nonpunitive and supportive way.11 Shanafeldt et al. found that only 26% of the surgeons with suicidal ideation sought help from a mental health professional.12 Khaneja and Milrod reported that nearly 100% of 74 pediatricians expressed a need for additional emotional support after a patient’s death.12 Scott et al. reported that only 35% of the 175 clinicians who experienced significant emotional distress after an adverse patient event received support from the institution5 versus 52% for Edrees et al.7 Finally, a study in the United Kingdom of more than 700 obstetric anesthetists demonstrated that 60% of the 291 involved in a maternal death received no support, 65% of respondents were unaware of support resources, and only 5% received information regarding the availability of support from the institution.13

One of the reasons that health care organizations do not routinely offer emotional support might be that their leaders do not know how to develop and successfully implement a support system. In the absence of a formal support structure to emulate, Scott et al. found that implementing a second victim support process infrastructure required nearly four years.8 It might be even more difficult to make the cultural changes required within
a health care system to adequately support second victims; similar changes aimed at improving the culture of safety generally take years to evolve.14–16 In this article, we describe the development of a set of tools designed to assist health care organizations in developing and implementing a second victim support system.

**Tool Development**

We employed a consensus-based, iterative process, in which recognized experts in patient safety and emotional support were recruited to develop a toolkit for establishing an institutional emotional support process for clinicians. The goal of the toolkit was to share strategies and tactics that have been successfully deployed in health care organizations across the United States.

In January 2010 one of the authors [L.K.] contacted experts in emotional support for clinicians and proposed forming an advisory panel to develop a toolkit to guide health care facilities in organizing institution-wide support for clinicians. The initial panel held three conference calls in 2010 (March, June, and September). All documents and reference materials were shared through e-mail or a Web-based document-sharing service. Decisions were made by consensus with an iterative approach.

After the initial conference call, the team decided that the toolkit should be modular, specific, and referenced.

**Modular:** The kit should be modular so that multiple actions could occur concurrently in multiple areas within the organization. These modules would define the core elements required to establish an effective clinician support program. For example, risk management concerns could be addressed at the same time as the identification of administrative support and executive champions. This structure would also allow hospitals at different stages of development in patient safety and staff support to individualize their use of the toolkit. Hospitals with minimal patient safety initiatives in place might need to use the entire toolkit, whereas those with a well-established safety culture might use only a few of the modules as a reference guide.

**Specific:** The toolkit should outline specific actions that need to be completed for a second victim support program to succeed rather than simply identify concepts or broad processes that should be implemented.

**Referenced:** The recommended processes regarding care for caregivers should be based on the best available evidence. If specific evidence did not exist to support a specific recommendation, other relevant patient safety processes would be cited. When sources were not found, practices that had been successfully employed by other organizations were cited.

The panel excluded two issues from the toolkit: (1) The potential legal implications of emotional support during the after-
math of an adverse clinical event; state-to-state variability on the laws precluded specific comment; and (2) the best practice for training peer supporters to assume the role of second victim counselors; no data exist on the best way to train peer supporters within the health care setting.

After identifying the three requirements, the panel then determined the modules that the toolkit should include. These modules were drawn from the literature on emotional support, the panelists’ existing programs and experience, and the health care leadership literature on effecting cultural change within health care organizations. An iterative approach, using conference calls and e-mails, was employed to determine the final set of instructional modules. Group consensus was required to finalize each module.

After identifying the modules, the panel delineated specific actions/issues within each module and appropriate resources and citations for each action. The same iterative consensus process was used to identify the actions and citations as had been used for the modules.

### Tool Description

Through conference calls, shared online documents, review of the literature, and the panelists’ expertise and experience, the panel identified 10 modules for successful emotional support programs, as shown in Table 2 (above), encompassing 55 specific actions or issues (range, 1–23 per module) to be considered and 95 references (range, 2–26 per module). The modules range from the assessment of the institutional culture of safety and awareness of the second victim phenomenon, to risk management and policy concerns, to practical operational steps, to feedback and quality improvement efforts for the program. Many of the references were purposely cited within multiple modules; this redundancy would allow an institution to start work in any module and have access to all the references and tools relevant to that module.

In addition, we created an organizational assessment tool to evaluate institutional readiness for development of a clinician support process, as well as areas of potential concern during implementation. The 10 modules, actions, and references were compiled into a single document and published on the website for Medically Induced Trauma Support Services (MITSS) on December 8, 2010.17

To help measure the utility of the downloadable toolkit, we developed a two-part online survey to be sent to persons who referenced the site and downloaded the toolkit. The first part of the survey, which addresses the toolkit’s usability, is sent several months after the toolkit is downloaded. It addresses ease of navigation, how helpful the resources are, what part(s) of the toolkit was most helpful, and how the toolkit might be improved. A second survey is sent approximately six months later to measure the steps that the institution has taken toward a clinician support program and the degree to which the toolkit helped those efforts.

### Toolkit Application to Quality and Safety

The impact of enhanced, reliable emotional and professional support for individual clinicians suffering from the emotional impact of an adverse event could be career saving and even life-saving. Many clinicians consider changing careers after being involved in a serious adverse event.6,8 Others even consider suicide,9 and sadly, some actually end their lives.

<table>
<thead>
<tr>
<th>Module</th>
<th>No. of Actions</th>
<th>Example</th>
<th>No. of References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Culture of Safety</td>
<td>1</td>
<td>Organization’s patient safety environment level of maturity</td>
<td>6</td>
</tr>
<tr>
<td>Organization Awareness</td>
<td>2</td>
<td>Just-in-time support for clinicians</td>
<td>7</td>
</tr>
<tr>
<td>Multi-Disciplinary Advisory Committee</td>
<td>6</td>
<td>Assess existing internal support resources (both formal and informal)</td>
<td>11</td>
</tr>
<tr>
<td>Leadership Buy-in</td>
<td>4</td>
<td>Soliciting administration approval and endorsement</td>
<td>12</td>
</tr>
<tr>
<td>Risk Management Considerations</td>
<td>5</td>
<td>Commitment to rapid disclosure</td>
<td>9</td>
</tr>
<tr>
<td>Policies, Procedures, and Practices</td>
<td>6</td>
<td>Formal and predictable crisis communication plan following a clinical event</td>
<td>8</td>
</tr>
<tr>
<td>Operational</td>
<td>23</td>
<td>Operational details for triggering clinician support</td>
<td>26</td>
</tr>
<tr>
<td>Staff Training</td>
<td>1</td>
<td>Potential educational topics/training requisites</td>
<td>2</td>
</tr>
<tr>
<td>Communication Plan</td>
<td>4</td>
<td>Educational efforts and marketing campaigns to internally advertise the availability of clinician support</td>
<td>10</td>
</tr>
<tr>
<td>Learning and Improvement Opportunities</td>
<td>3</td>
<td>Outcomes data suggestions Feedback from users of the support services</td>
<td>4</td>
</tr>
</tbody>
</table>

### Table 2. Toolkit Modules
Providing support for staff members who may be suffering as second victims is critical for the individual clinician's psychosocial and physical recovery after an adverse event. This is a moral imperative to care for the second victim and may also be an important part of a performance improvement strategy. Stress and burnout have been associated with increased rates of adverse events. Failure to care for second victims could lead to a vicious cycle of adverse events, burnout, poor care, and more adverse events. Enhanced support after an adverse event may interrupt this cycle and may help more clinicians continue in their jobs, thus reducing turnover. Clinicians should not have to suffer alone or need to seek their own support in an ad hoc manner in the chaotic aftermath of an unanticipated clinical event. Health care organizations should take responsibility for providing clinicians with both formal and informal support systems, entailing plans and procedures, that are in place before the occurrence of an actual event.

**Tool Application Settings**

The clinician support toolkit could be used in any health care setting. Major adverse events are more likely to occur in acute care facilities, and large organizations are more likely to have internal resources available to create a formal support process. However, the death of a well-known patient could have devastating consequences to the office staff of an individual physician, and the principles outlined in the toolkit could be used in any health care setting for any individual involved in care of the patient.

**How-To**

The toolkit, which is available for free, can be downloaded or used online. At its most basic, it is a checklist of specific issues that should be addressed during the development of an emotional support program for health care clinicians. The toolkit is not meant to be proscriptive or even to describe the best practice regarding how these issues are addressed (or even whether each needs to be addressed at every institution). Rather, the methods used should be based on the health care organization's specific culture and resources; the authors do believe that it is useful to consider every item on the list.

References, which are cited for each issue within the modules, describe examples that have been used in other successful programs. The authors of those resources have allowed them to be referenced within the toolkit so that others may adopt or adapt them. The examples might not fit every institution. For example, one of the authors [S.D.S.] has provided a checklist to monitor the status of the numerous action items necessary to deploy a support process that includes many of the lessons learned from his or her experience. However, she works in an advanced patient safety culture community with regard to open disclosure of events and emotional support. Organizations working at an earlier stage of development may need more specific help. Also, because most of the resources come from organizations that have dealt with many or all of the issues outlined in the toolkit, there is some redundancy among the types of resources offered. The end user is able to select the tool most fitting for his or her respective health care organization.

**Results and Lessons Learned**

The toolkit was introduced during the 2010 Institute for Healthcare Improvement Annual Forum in Orlando, Florida. Within weeks, several leading patient safety organizations had posted links to the toolkit within their own websites (Table 3, page 239). In January 2011, MITSS offered the ability to download the toolkit in exchange for a promise of feedback on its utility. Visitors to the toolkit have come from 38 countries and have been directed to MITSS from more than two dozen websites. In the first 12 months after publication, 6,261 people visited the toolkit website, and 725 requested a download. Of the 36 persons completing the follow-up questionnaire, 75% found the toolkit extremely or very helpful, 88.9% found it easy to navigate, and 96.2% liked the format. Importantly, 62.5% used the toolkit to make positive changes in their institution. Comments from the survey were generally positive, with positive statements outnumbering negative by two to one. One suggestion, given the large volume of content, was to provide more guidance on the content (table of contents, how to use).

In developing the clinician support toolkit, the panel relied on expert opinions to identify proposed elements to be included. We did not use a formal consensus process such as a modified Delphi technique. As explained earlier, the process was driven by the available literature and the experts' own experience, and there is no literature that describes the requisite elements of an emotional support program, the best ways to implement such a program, or even the best approaches for provision of individual support to medical personnel after an adverse event or medical error. We believe that the requirement for unanimous agreement for inclusion offsets to some extent the lack of a formal consensus process.

It is too early for us to know how well the toolkit works. The elements have face validity, and several of them have been shown to work in other patient safety arenas. On the basis of the initial results from the follow-up survey, it appears to be well received, but it remains to be seen if the set of activities represented in the
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Table 3. Initial Organizations Posting Links to Toolkit*

<table>
<thead>
<tr>
<th>Organization</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medically Induced Trauma Support Services</td>
<td><a href="http://www.mitsstools.org/tool-kit-for-staff-support-for-healthcare-organizations.html">http://www.mitsstools.org/tool-kit-for-staff-support-for-healthcare-organizations.html</a></td>
</tr>
<tr>
<td>Massachusetts Medical Society</td>
<td><a href="http://www.massmed.org/AM/Template.cfm?Section=Vital_Signs_This_Week_Archive&amp;CONTENTID=38983&amp;TEMPLATE=/CM/ContentDisplay.cfm#22">http://www.massmed.org/AM/Template.cfm?Section=Vital_Signs_This_Week_Archive&amp;CONTENTID=38983&amp;TEMPLATE=/CM/ContentDisplay.cfm#22</a></td>
</tr>
<tr>
<td>MHA (Massachusetts Hospital Association)</td>
<td><a href="http://mhalink.informz.net/mhalink/archives/archive_1123561.html">http://mhalink.informz.net/mhalink/archives/archive_1123561.html</a></td>
</tr>
<tr>
<td>Institute for Healthcare Improvement</td>
<td><a href="http://www.ihi.org/IHI/Topics/LeadingSystemImprovement/Leadership/Tools/LeadershipResponseSentinelEventEffectiveCrisisMgmt.htm">http://www.ihi.org/IHI/Topics/LeadingSystemImprovement/Leadership/Tools/LeadershipResponseSentinelEventEffectiveCrisisMgmt.htm</a></td>
</tr>
<tr>
<td>CRICO/RFM (Risk Management Foundation)</td>
<td><a href="http://www.rmstrategies.com/Products-and-Services/Risk-Education-Training-and-Products/Films-and-DVDs">http://www.rmstrategies.com/Products-and-Services/Risk-Education-Training-and-Products/Films-and-DVDs</a></td>
</tr>
</tbody>
</table>

* Links are still active.

The toolkit will lead to a sustainable and effective process for emotional support across a broad section of health care environments. Our purpose was not to test this tool, but to create it, and refine and enhance it on the basis of feedback from those who use it. Future studies are necessary to evaluate the toolkit's effectiveness.

Summary and Next Steps

We have developed a toolkit to help health care organizations implement support programs for clinicians suffering from the emotional impact of errors and adverse events. The toolkit is based on the best available evidence related to the second victim experience, was vetted by a panel of patient safety experts, and was designed to be useful to organizations in any stage of their patient safety evolution.

The toolkit consists of 10 modules, each with a series of specific action steps, references, and exemplars. The modules are designed to allow institutions to work simultaneously on multiple aspects of the implementation process, to customize the process to the individual institution's culture, and to bypass components that are already established. We plan to update the content and structure of the toolkit on the basis of feedback from the end users' survey responses and the literature. This toolkit also presents several areas for future research. Does the toolkit help organizations to implement a successful second victim support program? Are all of the elements needed, or are other critical components missing? Does the implementation of a peer-to-peer support process help to improve coping? And finally, and most importantly, does the provision of effective emotional support lead to better-functioning clinicians, with fewer who leave health care, and does it ultimately lead to reductions in adverse events? Some of this research may be simply subjective (“What parts of the toolkits were most helpful”), but one could also create several versions of the toolkit and measure that ability of each to help create an effective support program.

Contact Us

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As the President and Executive Director for MITSS, Linda Kenney provides emotional support to clinicians, patients and family members after adverse medical events. This support is largely provided free of charge. She also has provided paid consultation to hospitals about the second victim phenomenon and support team implementation strategies.

Susan D. Scott has provided paid consultation to hospitals about the second victim phenomenon and support team implementation strategies.

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The Joint Commission Journal on Quality and Patient Safety

References


