Ten Considerations for Easing the Transition to a Web-based Patient Safety Reporting System

Sharon K. Ulep, Sheryl L. Moran

Abstract

Moving to a Web-based system for tracking patient safety events is a goal of many health care organizations. How does an organization know if it is adequately prepared to make this significant process and cultural change? This article details 10 important considerations, along with additional insights and lessons gleaned from the Henry Ford Health System and its successful transition to a paperless, Web-based patient safety reporting system. The key points from the 10 considerations have been further reconfigured as a readiness assessment tool for use by any organization that may be considering a move to a paperless event reporting system.

Introduction

Moving to a Web-based patient safety reporting system is a goal of many health care organizations.[*] The impetus to create better tools for the tracking, management, and analysis of actual and near-miss safety events was pushed to the forefront of the health care agenda by the 1999 Institute of Medicine (IOM) release, *To Err Is Human: Building a Safer Health System*, and its 2001 release, *Crossing the Quality Chasm: A New Health System for the 21st Century*, along with the safety agendas of the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and State-based departments of health.[1–3] The latest IOM report on the same topic, *Patient Safety: Achieving a New Standard of Care*, calls expressly for improved patient safety event reporting systems, pointing out that "effective and efficient patient safety reporting systems within the context of an integrated health information infrastructure are essential to the creation of a new standard of care for evidence-based medicine and the ongoing improvement of clinical practice."[4]

The creation of an easy-to-use, readily accessible, centralized, and non-punitive Web-based reporting mechanism is typically one of the fundamental steps taken by organizations when implementing an overall patient safety strategy. In a 2001 evaluation of its reporting and patient safety analysis strategies, the Henry Ford Health System (HFHS) was found to have been using as many as 20 different formats for the capture of risk and safety information at its various hospitals, outpatient settings, and divisions. Data trend and comparison

---

[*] For the purposes of this article, the term *patient safety event* is synonymous with the terms *incident, adverse event,* and *error.*

reports across the organization were not possible because of these varied reporting formats. HFHS executives considered the creation of a standardized, accessible, and easy-to-use Web application for safety event reporting to be a top priority in their patient safety improvement effort. Measures of success for HFHS would include a substantial increase in the volume of reported patient safety events, the ability to appreciate and act quickly on reported information trends, and the successful and timely creation of HFHS-wide safety measures within the organization's various business entities. Building this foundation, however, proved to be far more difficult than merely purchasing or developing a system. This type of culture change requires not only the selection of the best reporting mechanism; it also demands extensive planning, allocation of significant monetary and human resources, the commitment of the senior leadership, and most important, a thorough and honest assessment of the organization's readiness for such a change. Furthermore, it is important to recognize that reporting (i.e., the capture of incident data) is only one aspect of the needed systems. Equally important are analyzing the evidential data as well as managing the workflow, process, and communications following a patient safety event. This paper uses the term *reporting system* to include of all of these activities.

The 10 considerations to follow were developed after the Web-based patient safety reporting system Risk MonitorPro® (a product developed by rL Solutions, www.rL-Solutions.com) was implemented throughout HFHS in Detroit, Michigan. The HFHS is a multifaceted health care provider with a 4-hospital network (Henry Ford Hospital, a 906-bed tertiary care facility; 2 community-based hospitals; and a 100-bed behavioral hospital). HFHS also has one of the Nation's largest group practices. The Henry Ford Medical Group, with its 800 physicians and researchers in 40 specialties, staffs Henry Ford Hospital and 22 additional Henry Ford medical centers. In addition, HFHS has a substantial community care services division, including 16 regional dialysis locations, 15 ambulatory pharmacies, 8 eye care service centers, multiple hospice locations, and one of southeast Michigan's largest home health care networks. Due to the complexity of the health services provided and the organization's geographic spread, HFHS sought out a third-party vendor with the technical and subject expertise to meet the needs of the system's large and varied user base. Factors such as vendor viability, customer orientation, and the ease with which the software could be adapted to meet future organizational needs weighed heavily in the selection of the Risk MonitorPro system, as did features permitting the software to be customized to HFHS' specifications.

There are a number of fundamental considerations involved with any major initiative. Financial resources, for example, must be available not only for the initial computer system hardware and software purchase outlays, but also for ongoing support to sustain the application. Human resources must be identified to lead the project, and senior leadership commitment and sponsorship must be visible and active across all staff groups in the health care organization. This article focuses on those considerations specific to the successful implementation of a Web-based patient safety reporting system.

Ten Considerations

Consideration #1: Is the organization's network and hardware capable of supporting a paperless environment?

Doing away with paper and streamlining documentation is one of the fundamental cost-reduction measures any health care organization (HCO) can make. At HFHS, going paperless did not mean adopting a hybrid process whereby one party fills out a paper form and then forwards it on to another party for entry into the Web-based system. The paperless ideal meant ridding the system of all paper-based incident reports and replacing them with a Web-based event reporting system that would capture all types of events across the health care system in a standardized fashion. In addition to the cost-reduction benefits that ultimately result from such a venture, HFHS sought to improve significantly the timeliness and accuracy with which management was notified that a patient safety event had occurred. In an effort to achieve this paperless vision, an organization must first have the infrastructure necessary to support such a change.

Network connectivity for every machine is a must in order to utilize Web-based programming on an HCO's Intranet (i.e., "Web-based" does not mean using the public Internet; the entire system can reside behind local firewalls). Having a sufficient number of computers available in patient care areas to provide network access for any individual who needs to make an event report is key to a reporting strategy's success. Many HCOs have begun to build sophisticated technology infrastructures during the last decade and may use software systems that are spread across a broad geographic range. Critical resources such as electronic medical record systems, computerized order entry systems, online supply procurement, billing and insurance systems, patient census registries, and pharmacy, lab, and radiology applications all have mounting network connectivity and user accessibility requirements. If a particular HCO has invested in such an infrastructure and has the necessary hardware available to each employee, then the transition to a paperless event reporting system makes sense from a financial perspective and represents a large step forward in the development of a communications strategy that will encourage and monitor a safe patient environment.

When considering a Web-based event-reporting tool, server hardware is an expensive but necessary purchase. Some software vendors may offer the option of storing the HCO's risk event data with an external host. Given the serious and confidential nature of the information captured in a patient safety event reporting database, HFHS determined that internal data storage was the preferred approach. In either case, physical and electronic access to the server should be closely monitored and appropriate virus protection and electronic firewall security software should be installed and updated regularly. Compliance with Health Insurance Portability and Accountability Act (HIPAA) security standards should be considered the minimum requirement.

If the chosen event reporting system has the capability of interfacing with other software applications such as patient registration, then the server speed and memory capacity should be maximized to accommodate the increase in electronic traffic. Event reporting software with HL-7 compatibility or other interface capabilities can decrease significantly the amount of time necessary to enter events into the system, while also increasing the accuracy of reported events. Such interfaces enable the user to select from an appropriate registry the patient or person involved in the patient safety event. All pertinent data then is copied from the registry to the event report automatically, eliminating the need for duplicative data entry. This type of convenience proved very helpful in building user acceptance at HFHS sites.

As with any software purchase, data backup and disaster recovery plans should be discussed, documented, and practiced before any actual patient information is recorded. The need for easy data retrieval and the disclosure of events related to complaints, inspections, and even litigation will necessitate a well-organized long-term storage and archiving scheme. Going paperless can ease storage costs and overhead, but a data recovery action plan needs to be well-conceived and well-described for those rare occasions when a power outage or some other electronic failure should occur.

Consideration #2: Does the organization's current reporting process accurately reflect the number and type of patient safety events that occur in the health care setting?

A review of the literature suggests that HCOs under-report events significantly, especially when the reporting is done on a voluntary basis. Traditional paper-based incident reporting systems capture only a small percentage of certain types of events.[5, 6] Reasons for under-reporting may include different staff interpretations of what constitutes an incident, fear of blame or reprimand, and lack of time necessary to complete a paper-based event report. HCOs fail in many cases to recognize the value of an event reporting system because they use a paper-based system that limits the amount and type of adverse event information that can be gathered and analyzed.

The move to a Web-based event reporting system increases the number of reported events, while providing opportunities to reconsider the overall philosophy and approach to actual event and near-miss occurrence reporting. At HFHS, for instance, the average number of events reported each month was difficult to calculate across the entire system prior to the adoption of the web-based system. Several business entities such as Hospice, Home Health Care and ambulatory pharmacies had limited or no reporting strategy or analysis capabilities. Reports on fewer than 200 patient safety events system-wide were collected and counted each month. Risk management typically received these paper reports for review 10–14 days following an event. The average monthly number of reported events jumped to more than 650 following the implementation of the Risk MonitorPro electronic reporting system, and reports were available in

the system immediately upon submission. After 1 year of use, HFHS executives saw a 200 percent sustained increase in reported incidents across the Web-based system. This increase was not due to a greater incidence of patient safety events; rather, it was indicative of the new-found ease with which such events could be recorded and reported in a timely manner using the electronic system.

Full-featured Web-based event reporting systems routinely include a type of logic model that customizes the event form to match the type of event being reported. In doing so, the clinical staff is prompted for only the information relevant to the event at hand, resulting in more efficient reporting and more accurate information.

HFHS employed a staged implementation plan for its various hospitals and out-patient business entities. Beginning in August 2002, paper forms were entered into the new software system as a means of familiarizing the risk management staff with the software and for the purpose of creating baseline comparison data. The implementation of the Web-based reporting system began at each of the HFHS facilities in November 2002. The rollout involved training for all employees on the importance of reporting all patient safety events and near-miss occurrences, the types of occurrences to be reported, access to the electronic system and use of the Web-based tool, as well as the management staff's follow-through obligations. As the staff at each of the hospitals and out-patient business entities received the training and gained access to the Web-based tool, a significant increase in the volume of reported events was noted. Figure 1 shows a monthly trended increase in reported events across the various HFHS divisions. Facility A is the main, 906-bed hospital; Facility B represents the community-based hospitals; Facility C represents the medical group's ambulatory service locations and community care services divisions; and Facility D is the HFHS behavioral health component. Event reporting rates at HFHS were approximately 200 percent above the baseline period, at the time this article was written.

In addition to the increased volume of reported events, several new categories of patient safety events that were not captured with the former paper process were introduced to staff. The new event categories included infection control issues, airway management difficulties, and diagnosis or treatment failures, and they took on the same importance as the former categories dealing with falls, medication safety, lab specimen safety, identification problems, and employee health injuries. Considerable attention was paid to the specific event types and to contributing factors related to communication issues, patient care handoffs, sign-outs, and caregiver fatigue. As a result, nearly every hospital and out-patient business entity of Henry Ford Health System has seen a substantial and sustained increase in patient safety event reporting.

Figure 1. Safety event report volumes by month for Henry Ford Health System

*Shaded area denotes staged implementation phase
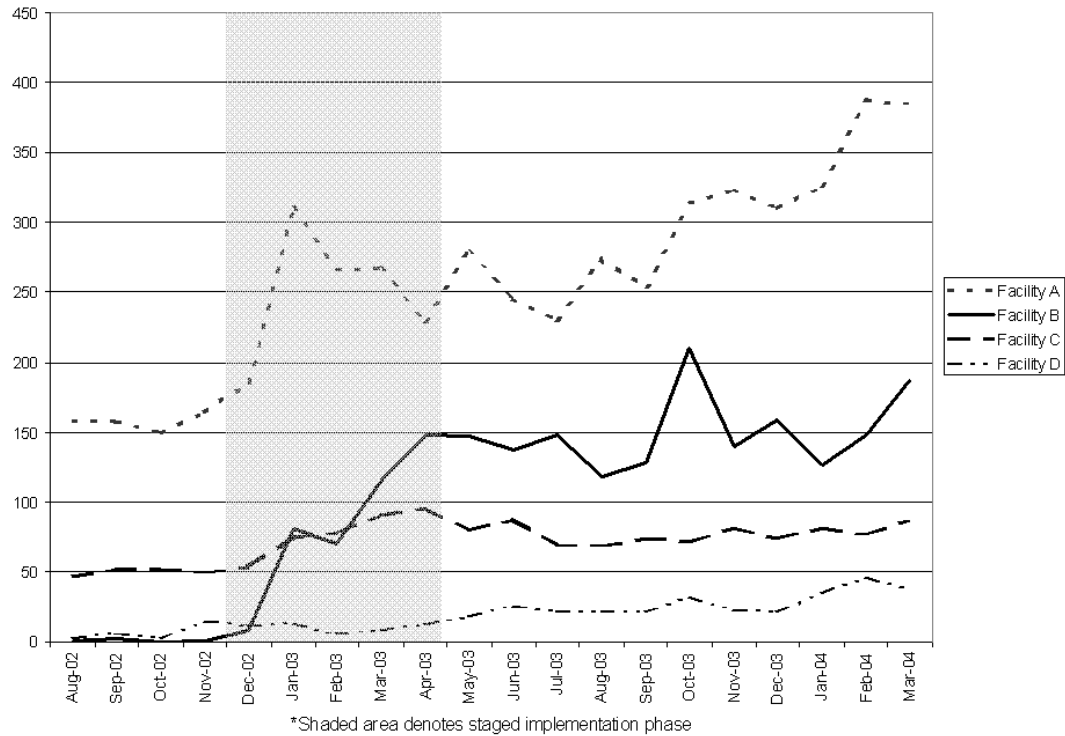
Consideration #3: Does the Web-based event reporting system you are considering give you details that will drive quality improvement?

Traditionally paper-based incident reports were limited to capturing basic information on the nature of the incident, where and when it happened, who was involved, and the immediate actions and follow-up measures taken. The data collection was limited by the size of the font and the available writing space on the form used to document the event. Data choices or options on the incident report were limited, perhaps generic in nature. Details had to be gleaned from narrative entries that could be hard to decipher and even harder to group and trend for reporting. If an organization wanted to fully explore a specific incident type and the myriad contributing factors, actions taken, and other details, it would need to develop a unique incident report for each type of event tracked.

A Web-based system permits different content for each type of event tracked, meaning that all data fields specific to each type of reportable event can reside within one application. In a Web-based system, for example, if an employee reports an airway management event, the subsequent screens, fields, and pick lists are all customized for this type of event. Should the employee choose to report a surgery-related event, the screens are unique to surgery events, while unrelated fields for airway management events and other event types are hidden from view. The data collection tool in a Web-based system can be much more robust than a

paper-based form and can accommodate an endless variety of fields including, but not limited to, specific incident types, contributing factors, safety precautions in place at the time of the event, actions taken immediately following the event, severity ratings, prevention ideas, and others. The selection team at HFHS deemed the Risk MonitorPro system to be especially helpful in its ability to display only those screens relevant to each user's needs. A frontline staff member reporting an event does not have to view unnecessary fields and is not asked to enter unknown information such as root-cause details when initiating an event report. A manager reviewing the report at a later time, however, would see those fields and would be asked to enter additional data pertinent to the event investigation. The fact that all of this data and more can be organized easily, that items from a pick list can be selected by point-and-click, and the need for excessive typing is reduced, means that an HCO using a Web-based event reporting system will have data-rich reports with which it can identify opportunities for change and quality improvement.

One very important aspect of Web-based systems is the flexibility with which the event report can be customized, providing as much or as little detail as the customer requires. Establishing an adequate balance between needed and desired data can be a challenge. At HFHS, for example, fields such as the factors contributing to an event are required data elements. This information was deemed necessary and valuable to the creation of useful process improvements. Data elements such as safety precautions in place at the time of a fall are desirable, but not mandatory. HFHS has a large medical group that generates a substantial volume of out-patient visits. Patients treated in the outpatient setting may occasionally experience a fall, but it is not likely that they are going to a clinic for a fall risk assessment. Thus, the safety precautions field may not apply to every fall event, or the list of precautions may be customized to reflect the patient type affected by the fall. To better illustrate this concept, HFHS chose to include the safety precaution field in the Web-based data entry tool as an optional data field. The ultimate goal should be a Web-based system that has been customized to capture essential data, without creating an undue burden on the reporter.

Consideration #4: Does the organization consider risk management and patient relations to be independent, unrelated operations?

If the HCO's answer to this question is yes, then changes are in order. Recent studies at the Vanderbilt University School of Medicine suggest that unsolicited patient complaints captured and recorded by an organization are associated in a positive manner with the physicians' risk management and malpractice experiences.[7] The authors of the studies further noted that if there is a relation between claims experience and patient dissatisfaction, then the creation of a monitoring system to track complaints and dissatisfaction could serve to alert physicians to their risk of litigation.

A Web-based event reporting system that permits the capture of complaints and other feedback could use such information to track and alert physicians to

potential legal threats, while facilitating improved communication between an organization's patient relations or guest relations group and its risk management department. Though often separate entities, these two groups need to work together to address common issues and examine trended data proactively to identify sources of dissatisfaction and potential patient safety events. The Web-based system, with its real-time reporting capabilities, facilitates easy threat and complaint recording and allows organizations to analyze the resulting data and respond to such situations in a more expeditious manner. Implementing a Web-based system with integrated features that permit patient safety event reporting and complaint tracking would seem to be an ideal solution.

Consideration #5: Is the organization committed to involving staff at all levels in the creation of event reports?

Every account submitted to an event reporting system has merit. Employees should be encouraged to report their concerns, events they have witnessed, and errors they themselves have committed. Employees need to be reassured through policy and action that they will not be punished for making a report. To encourage more reporting and to offer some protection from management-level retaliation, a means of anonymous reporting should be made available to every employee.[6] The best person to report an event is the person who commits the error or witnesses the action. To achieve full and compelling data that will direct patient safety and quality improvement activities, every employee should have a voice and be given a safe culture in which to use it.

One of the goals associated with the process of culture change at HFHS was the elimination of management-filtered event reports. Some managers preferred to present only the most favorable data for their group or area and regarded a high volume of event reports as a negative reflection on their management abilities. This attitude is gradually giving way to one of "if it is not reported, I can't do anything about it." It is critical that organizational leadership, in policy and deed, evaluate management staff members on their responses to patient safety events, rather than the volume of events in a given area. Organizational leadership should provide positive feedback to managers with a high volume of reports and should permit each manager the time necessary to evaluate and respond to each event.

Data quality is another prime consideration when involving staff at all levels in event reporting. A Web-based system with identified, mandatory data elements can help to ensure the right types of information are provided—but not necessarily the correct information. Data quality needs to be promoted continuously through training, the sharing of report results with the staff, and using a critical review for data integrity. Giving managers a shared accountability for the quality of data reported in their areas allows the data to be reviewed closer to the point of entry during manager sign-off and again during risk management review and/or report production. The advantage of a Web-based system is that incomplete data can be reviewed immediately upon submission, errors are detected very quickly, and feedback can be given to staff. A manager or risk

manager would be hard-pressed to provide such feedback in such a timely manner using a paper-based system.

At HFHS, quality assurance techniques are used to detect inconsistent or inaccurately entered data and to alert the risk management department to potential data entry errors. Several data integrity checks were developed early in the software implementation, and these procedures are used on a daily basis to locate event reports with data entry errors. The risk management department oversees this data integrity screening process and ensures that faulty information is corrected by the area manager as necessary.

Consideration #6: Will management staff in more than one department be used to investigate events and outcomes?

Cultural change related to patient safety does not occur in risk management departments. Change that dramatically improves the safety of hospital patients begins with the frontline managers and employees who are willing to take responsibility for investigating each incident, discuss the events that led to the error or accident, and then develop and follow through on an action plan that will attempt to prevent similar errors from occurring in the future. Quality, risk management, and legal department staff members should act as consultants in this process, but they are not the true agents of change in matters of patient safety. The frontline caregivers are the ones who must act and react differently in future situations as a result of an event or series of events.

Consider the process in place at any HCO. When a patient safety event occurs, who evaluates it and generates follow-up commentary for the investigation? If the event was a medication error, would the area nurse manager and a pharmacy manager each review the event? If an event involved multiple disciplines such as respiratory therapy, radiology, and an operating room team, would managers from each of those disciplines be expected to respond and comment on their department's involvement in the case, or are interdisciplinary teams used for only the root-cause stage of sentinel event analysis? A Web-based event reporting system can track multiple follow-up investigations by various personnel in a timely manner. Similar to a medical chart, progress notes or follow-up notes are recorded consecutively in the electronic case file by each person who reviews the event. Date, time, and role identifiers are added automatically to each follow-up note, based on the user's login identification. Subsequent reviewers can evaluate the notes prior to recording their own actions. Required actions, deadlines, and reminders can be scheduled and managed easily, without the need for face-to-face meetings. As a result, any event that transcends departmental boundaries may be managed efficiently by a "virtual" interdisciplinary team.

One of the pitfalls of a paper-based event reporting system is the delay involved in sharing information between various disciplines. The time needed to transfer event information from one department to another can inhibit to a significant degree the timely and accurate review of a particular case. An electronic event management system can accommodate all parties who need to be aware of an event with an e-mail or other automatic mechanism immediately after

the event is recorded. Each party then can review the event, record their own findings, and view commentary from others working the case. Collaborative event response efforts help to improve awareness of process flow and reveal departmental procedure gaps so that resolution plans can be more quickly identified and implemented.

Consideration #7: Is the organization ready for transparency?

Transparency is a term commonly used in patient safety culture discussions. In essence, there are two kinds of transparency to consider: internal transparency, in which the details of a particular incident are shared across departments and disciplines within an organization, and external transparency, which denotes the sharing of such information with the public, State regulatory bodies, and accreditation organizations.

Internal transparency is inevitable, and can be uncomfortable for some staff members, as an HCO makes the move to a paperless event reporting system. Internal transparency should be part of any planned move to a Web-based event reporting system. Moving case information to an accessible electronic format and setting expectations that involve multiple managers reviewing each event and offering their personal commentary serves to create an environment of transparency that may not have existed previously in the organization. Managers who are accustomed to collecting and maintaining their own quality and safety data may find themselves sharing the collection and analysis duties with multiple colleagues. This internal transparency can encourage multidisciplinary discussions related to event resolutions and process improvement activities.

External transparency is becoming more common as HCOs report sentinel events to JCAHO, the Centers for Medicare and Medicaid Services (CMS), and other regulatory agencies. In addition, customers have been able to force transparency through litigation, media attention, and other forums. Most States allow HCOs some protection from the disclosure of events to outside parties, but that line is becoming thinner all the time. As pointed out in the 1999 IOM report, *To Err Is Human*, and the IOM's 2001 followup report, *Crossing the Quality Chasm*, transparency is part of the process of creating a truly safe patient environment.[1, 2]

Consideration #8: Can the organization provide the necessary patient safety and risk management education for various levels of staff during a new software product implementation?

A truly effective change in a patient safety culture requires more than a financial investment in a new software product. Education involving theoretical concepts and their practical application must accompany any software rollout and policy changes, if the effort is to be effective and sustainable.

When was the last time the organization provided basic education in patient safety concepts and practices to its employees? During the rollout at HFHS, it was noted that many health care workers had different understandings of what constituted an event; moreover, many did not know what a near miss or latent error was or the importance of reporting such an occurrence. Ever-increasing budget pressures often lead to staffing cuts, causing overburdened employees to develop unsafe workaround practices. Safety education should be made a part of the rollout plans for a Web-based event reporting system.

In addition to basic education for all employees, the HCO contemplating electronic event reporting also should consider appropriate risk management education for management-level staff who will be reviewing and investigating reported incidents. The process and procedures for conducting an appropriate risk event investigation should be well defined and documented. Interview techniques are critical for capturing significant clues in a case. Identifying potential data sources for background information can be very helpful to managers. Appropriate guidelines from the organization's medical legal staff on event occurrences and their charting in the medical record also should be included.

Speaking with patients on errors and satisfaction concerns can be difficult and potentially explosive if not handled properly. CMS, JCAHO, and many State governments are setting standards for response to patient concerns and the disclosure of errors to patients and/or their families. Comprehensive policies and guidelines regarding error disclosures should be developed by each HCO to guide its staff members in terms of who, how, and when to speak with families on these issues. Education for staff members on creating written responses to patient concerns should be incorporated into management training curricula. Standardized letters and response materials have made this task easier and more consistent at HFHS. Communication with patients and their families often is facilitated by automated reminders to managers, alerts when a case does not reflect required actions, and the use of carefully worded templates that can be customized by managers and populated with event-specific details.

Consideration #9: Has the organization considered the policy and procedure revisions necessary to accommodate the reporting system change?

Most HCOs have policies and procedures related to event reporting. When implementing a Web-based event reporting system, however, it is critical that the policies and procedures be revised to ensure the standards of practice are current and reflected in those processes related to electronic event reporting.

During system training, the most common types of questions involve the HCO's policy and procedure (i.e., when should a report be made, who does the reporting, what is expected in terms of action and follow-up, etc.) rather than the hands-on use of the system and completion of the Web form.

Key policy considerations that should accompany the reporting system change include the following:

- Instruction on the general use of the software and Web forms

- Descriptions of the overall process for managing patient safety events (including near misses) within the organization

- Identification of required event report data fields within the HCO

- Clear, concise definitions for events to be tracked in the system and the specific field options to ensure selection consistency

- Identification of user groups, the roles of each, and their specific access rights (i.e., who uses the system, what is expected of them, and what information they are entitled to see)

- Standards for file stewardship (i.e., timely review and follow-up, resolution, and sign-off criteria, based on event severity or other measures)

- Processes for documenting matters that escalate beyond the event management process

- Relationships between the event management process and other processes such as claims management, patient relations, peer review, employee health, etc.

Most important, the organization's policies and procedures should reflect a culture and work environment in which employees feel "safe" reporting all types of events, regardless of their severity. Only when the policy guidelines fully reflect the HCO's unwavering commitment to patient safety and quality of care is the organization prepared to implement a Web-based event reporting system.

Consideration #10: Is the HCO ready to use event data to guide the organization in providing a safer, more satisfying patient experience?

A Web-based event reporting system amasses large quantities of data that a paper-based system simply cannot collect. As a result, the information available from the Web-based system for reporting, trending, and analysis extends beyond the basic reporting of patient safety event volumes. Comparative reports rely on data query capabilities and benefit from electronic analysis to help organizations detect early trends and drive change.

An HCO needs the capabilities to accept and analyze the real-time reports produced from a Web-based system. Resources need to be dedicated to the performance of quality checks on the data entry and to the production of timely aggregate trend reports, in order to expedite the change process. If the commitment to using the system to its fullest capacity does not start with the leadership and extend down to the frontline caregivers, then efforts to improve the quality and quantity of event reports will wane in a very short time.

Furthermore, a culture that demands perfect information before making a change will miss important opportunities to take action while trying to perfect the

information or reports. Web-based reporting provides almost instantaneous data, permitting fast analysis and identification of priorities for action. Web-based event reporting systems also support rapid-cycle improvement, fostering immediate gains in patient safety and customer satisfaction.

Conclusion

Many HCOs are considering a change from their current paper-based event reporting system to a more versatile Web-based tool, as part of a comprehensive strategy to improve the safety of their patients. To better assist readers in evaluating their organizations for the type of changes described in this article, the 10 considerations have been incorporated into a Readiness Assessment Tool (Figure 2).

Assess the HCO's readiness. Even if the organization scores low in some areas, it may be time to start planning for this transition. Start to investigate the solutions on the market that can ease the transition to a Web-based event reporting system. Begin to build an organizational infrastructure that is sufficiently flexible to evolve and mature over time as internal and external reporting needs develop. Prepare for the initial and the long-term impacts of patient safety culture on the organization. Do not wait until circumstances force this change; be proactive and watch as the organization's patient safety efforts flourish.

Figure 2. Web-based patient safety reporting system readiness assessment

Web-based Patient Safety Reporting System Readiness Assessment

<u>Instructions</u>: Circle the number that best reflects the degree of readiness for each statement.

Not Ready	Unsure	Ready	Very Ready
1	2	3	4

Consideration #1—Network and Hardware

	NR	U	R	VR
1. Adequate number of PCs on units.	1	2	3	4
2. PCs on units connect to network.	1	2	3	4
3. Availability of a dedicated server/data storage solution.	1	2	3	4
4. Data security measures in place.	1	2	3	4
5. Data back-up procedures in place.	1	2	3	4
6. Disaster recovery procedures in place.	1	2	3	4

Consideration #2—True Reflection of Number/Type of Events

	NR	U	R	VR
1. Common understanding of event definitions.	1	2	3	4
2. Non-punitive culture of reporting.	1	2	3	4
3. Awareness of near misses and importance of reporting.	1	2	3	4
4. Culture promoting "the higher the number of reports, the better."	1	2	3	4
5. Desire to change/expand types of events reported.	1	2	3	4

Consideration #3—Details to Drive Quality Improvement

	NR	U	R	VR
1. Desire for more or better information about events.	1	2	3	4
2. Need for different report formats that give better direction for change.	1	2	3	4
3. Knowledge of appropriate quality/risk measures and trends.	1	2	3	4

Consideration #4—Integration of Risk Management and Patient Relations

	NR	U	R	VR
1. Need for shared information and improved collaboration between these areas.	1	2	3	4
2. Need for early identification of risk situations via unsolicited feedback.	1	2	3	4
3. Need for appropriate documentation and storage of feedback event responses.	1	2	3	4

Figure 2. Web-based patient safety reporting system readiness assessment, **cont.**

Consideration #5——Open Event Reporting

	NR	U	R	VR
1. Staff encouraged to report their own concerns.	1	2	3	4
2. Staff encouraged to report events they have witnessed.	1	2	3	4
3. Staff encouraged to report events they were involved in.	1	2	3	4
4. Physicians encouraged to report events.	1	2	3	4
5. Anonymous reporting option available to staff.	1	2	3	4
6. Safe culture in which to report—fearless.	1	2	3	4

Consideration #6—Management Involvement

	NR	U	R	VR
1. Departments own the reporting process.	1	2	3	4
2. Managers own the follow-up process.	1	2	3	4
3. Availability of RM staff as consultants to managers.	1	2	3	4
4. Availability of QI staff as consultants to managers.	1	2	3	4
5. Availability of legal staff as consultants to managers.	1	2	3	4
6. Clear expectations for manager involvement in follow-up.	1	2	3	4

Consideration #7—Transparency

	NR	U	R	VR
1. Culture promotes sharing event details and follow-up outside department or unit.	1	2	3	4
2. Managers from multiple disciplines collaborate on event follow-up.	1	2	3	4
3. Policy and procedure regarding disclosure to patient/family in place.	1	2	3	4

Considerations #8 & #9—Education, Policies, and Procedures

	NR	U	R	VR
1. Educational resources available.	1	2	3	4
2. Educational plan developed.	1	2	3	4
3. Policies and procedures dated, ready for revisions.	1	2	3	4

Consideration #10—Availability of Event Data

	NR	U	R	VR
1. Resources available to promptly analyze real-time data.	1	2	3	4
2. Comfort with partial, imperfect data to start QI process.	1	2	3	4
3. Support for rapid-cycle improvement.	1	2	3	4

Acknowledgments

Author affiliations

Office of Clinical Quality and Safety, Henry Ford Health System, Detroit, MI (SU). rL Solutions (SM).

Address correspondence to: Sharon K. Ulep, B.S., C.Ph.T., Six Sigma Black Belt, St. John Health, 15980 Dunblaine Avenue, Beverly Hills, MI 48025; phone: 586-753-1248; e-mail: sharon.ulep@stjohn.org.

References

1. Kohn LT, Corrigan JM, Donaldson MS, editors. To err is human: building a safer health system. A report from the Committee on Quality of Health Care in America, Institute of Medicine. Washington, DC: National Academy Press; 2000.

2. Committee on Quality of Health Care in America, Institute of Medicine. Crossing the quality chasm: a new health system for the 21st century. Washington, DC: National Academy Press; 2001.

3. Joint Commission on Accreditation of Healthcare Organizations. 2004 National Patient Safety Goals. Washington, DC: Joint Commission on Accreditation of Healthcare Organizations.

4. Committee on Quality of Health Care in America, Institute of Medicine. Patient safety: achieving a new standard of care. Washington, DC: National Academy Press; 2004.

5. Kivlahan C, Sangster W, Nelson K, et al. Developing a comprehensive electronic adverse event reporting system in an academic health center. Jt Comm J Qual Improv. 2002;28:583–94.

6. Sucov A, Shapiro MJ, Jay G, et al. Anonymous error reporting as an adjunct to traditional incident reporting: improves error detection. Acad Emerg Med. 2001;8:498–9.