SEC & SSER Patient Safety Measurement System for Healthcare

HPI White Paper Series

Revision 2 – May 2011

The HPI SEC & SSER Patient Safety Measurement System for Healthcare

Published by Healthcare Performance Improvement, LLC

5041 Corporate Woods Drive, Suite 180
Virginia Beach, VA 23462
Phone: (757) 226-7479 www.hpiresults.com

Publication HPI 2009-001

Revision 2 – May 2011
Revision 1 – December 2009
Revision 0 – May 2009

HPI Authors

Cheri Throop, RN, MHSA, RHIT, CPHQ & Carole Stockmeier, MHA, CMQ/OE

HPI Reviewers

Shannon Sayles, RN, MA & Larry Thomas, MD

HPI Approvers

Craig Clapper, PE, CMQ/OE; Kerry Johnson; & Gary Yates, MD

HPI acknowledges the following individuals for reviewing and providing input on the initial writing of this white paper:

Glenn Bingle, MD – Chief Medical Officer, Community Health Network
Sandy Dahl – Chief Clinical Officer, Yakima Valley Memorial Hospital
Marcia Delk, MD – Senior VP for Medical Affairs & Chief Quality Officer, WellStar Health System

TABLE OF CONTENTS

Executive Summary

"As to diseases, make a habit of two things — to help, or at least to do no harm."

*Hippocrates, **Of the Epidemics**, Book 1, Section XI, 400 BC*

While healthcare holds healing without harm as its core value, the industry has lacked a consistent nationally accepted method by which to measure performance against this promise. Several patient safety event taxonomies have emerged, yet these category-based classifications do not provide a means of consistently measuring harm resulting from safety events. Harm as a hospital-induced patient outcome has not been well defined in healthcare. The lack of a standard definition of patient harm leads organizations to use disparate, subjective determination that requires significant interpretation. These inconsistencies and shortcomings have become even more apparent as the healthcare industry focuses more intently on patient safety and as organizations try to measure improvement and identify benchmark performers in this area.[1]

Concern about these issues was voiced at the 2006 Safety Summit, an annual gathering of organizations engaged with Healthcare Performance Improvement (HPI) in safety culture improvement. Advocate Healthcare, Memorial Health University Medical Center, OhioHealth, Sentara Healthcare, and other HPI client organizations expressed the need for a reliable outcome measure for patient safety that can be used to measure performance within a hospital as well as compare performance across hospitals.

In response, HPI developed the **Safety Event Classification (SEC)** and the **Serious Safety Event Rate (SSER)**. The Safety Event Classification provides common definitions and an algorithm for the classification of safety events. The classification is based on the degree of harm that results from a deviation from expected performance or standard of care. The SEC serves as the foundation for the calculation of the Serious Safety Event Rate, a volume-adjusted measure of events resulting in moderate to severe harm, including death. Together, the SEC and SSER provide a consistent methodology for measuring patient harm and improvement in reducing patient harm. Over 100 hospitals across the United States are using the SEC and SSER.

The four sections of this paper provide an overview of the **HPI SEC & SSER Patient Safety Measurement System for Healthcare**. Section 1 provides an overview of current category-based approaches to safety event classification. In Section 2, the SEC is introduced as an outcomes-based classification system, and levels of harm are defined. The implication of known complications specifically is discussed in this section. Section 3 describes the SSER calculation method. Finally, Section 4 provides commentary about the application of the HPI SEC & SSER Patient Safety Measurement System, including the use of SSER as an internal organizational measure and as a cross-industry comparative measure.

[1] Institute of Medicine. Patient Safety: Achieving a New Standard for Care. Washington, DC: National Academy Press, 2003.

Section 1:
Event Classification in Healthcare

National and international patient safety organizations have yet to reach consensus on a universal, standardized patient safety event classification system. Numerous event classification systems have emerged, and some organizations have begun working together to harmonize, or align, existing taxonomies and definitions. The Joint Commission, the National Quality Forum (NQF) and the World Health Organization (WHO) have led efforts to classify events that cause harm to patients.

The Joint Commission defines a sentinel event as the following:

> "an unexpected occurrence involving death or serious physical or psychological injury, or the risk thereof. Serious injury specifically includes loss of limb or function. The phrase, 'or the risk thereof' includes any process variation for which a recurrence would carry a significant chance of a serious adverse outcome. Such events are called "sentinel" because they signal the need for immediate investigation and response."[2]

In early 2003, the Joint Commission developed a Patient Safety Event Taxonomy (PSET ™).[3] The PSET outlines terminology and classification schema for near misses and adverse events. The goal of the Joint Commission PSET is to facilitate a common approach for collecting and organizing patient safety data. This taxonomy was endorsed by the NQF in 2005 as a framework for aggregating, classifying, and reporting data for national patient safety improvement. However, it has yet to be implemented nationally. With the advent of nationally recognized patient safety organizations (PSO)[4], there continues to be a need for the universal adoption of a standardized safety event taxonomy.

In 2002, the National Quality Forum[5] endorsed a set of 27 serious reportable events in healthcare, or "never events." To qualify for this core list of serious reportable events, an event had to be unambiguous, usually preventable, serious, and one or more of the following: adverse, indicative of a problem in a health care facility's safety systems, or important for public credibility or public accountability.[6] Requiring that an event be usually preventable recognizes that some of these events are not always avoidable, given the complexity of health care. The presence of an event on the list, therefore, is not an a priori judgment either of a systems failure or lack of due care. With new evidence and innovation, this initial list of serious reportable events was expanded in 2006 to include 28 events[7]. In December 2008, the Department of Health and Human Services reported that 26 states had adverse event reporting systems and another state had taken action to develop one[8]. Eleven of the 26 states adopted – unaltered or with modifications – the NQF list of serious reportable events as the foundation for their adverse event reporting system, while 15 states use a state-generated list.

---

[2] The Joint Commission is an independent, not-for-profit organization that accredits and certifies healthcare organizations and programs in the United States. The definition of a sentinel event is found on the Joint Commission website at www.jointcommission.org/sentinelevents. Accessed on 1 March 2009.

[3] A. Chang, P. Schyve, R. Croteau, D. O'Leary, and J. Loeb, "The JCAHO Patient Safety Taxonomy: A Standardized Terminology and Classification Schema for Near Misses and Adverse Events," *International Journal for Quality in Health Care*, 17 April 2005, 17(2):95-105.

[4] Patient Safety Organization (PSO) is a designation established as part of the Patient Safety & Quality Improvement Act of 2005 for qualified organizations to collect, aggregate, and analyze information on medical errors reported by healthcare providers.

[5] The National Quality Forum is a not-for profit public-private partnership working to promote common healthcare measures.

[6] The National Quality Forum, "Serious Reportable Events in Healthcare: A Consensus Report," 2002. Available online at http://www.qualityforum.org/pdf/reports/sre.pdf. Accessed on 1 March 2009.

[7] The National Quality Forum, "The National Quality Forum Updates Endorsement of Serious Reportable Events in Healthcare," Press Release, 16 October 2006. Available online at http://www.qualityforum.org/pdf/news/prSeriousReportableEvents10-15-06.pdf. Accessed on 1 March 2009.

[8] Department of Health & Human Services, "Adverse Events in Hospitals: State Reporting Systems," OIE -06-07-00471, December 2008. Available online at http://www.oig.hhs.gov/oei/reports/oei-06-07-00471.pdf. Accessed on 1 March 2008.

The World Alliance for Patient Safety of the World Health Organization recognized healthcare's current inability to classify, aggregate, and compare patient safety information across organizations internationally. In 2005, the WHO, the international agency that coordinates public health for the United Nations, initiated the International Classification for Patient Safety (IC4PS). IC4PS draws upon the work of the Joint Commission's PSET as well as other national safety event classifications of the United Kingdom, Australia, and the Netherlands. The goal of the WHO is to define, harmonize, and group patient safety concepts through a classification that links closely with other WHO Family of International Classifications.[9]

In 2007, HPI compiled the current nationally recognized and/or endorsed safety event nomenclatures. The HPI Safety Event Taxonomy (Appendix A) reflects an alignment, or harmonization, of various classification systems. The Safety Event Taxonomy periodically is updated to reflect changes as nationally endorsed safety event reporting standards and taxonomies continue to evolve. The harmonization current with the publication of this paper is found in Appendix B.

Section 2:
HPI Safety Event Classification (SEC)

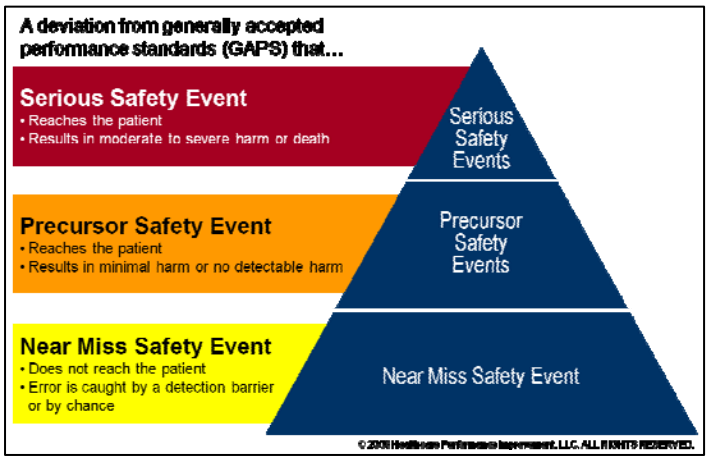
Unfortunate outcomes in healthcare occur. There are known complications of treatments and procedures deemed "worth the risk" when considering the likely outcome if the procedure is not performed. True accidents, such as a slip and fall of a patient appropriately evaluated as low fall risk, sometimes happen. And eventually, the human body fails despite all efforts. The reality is that not all bad outcomes result from defects in care.

Events of harm, however, are outcomes that do result from defects in care. The healthcare industry has an obligation to protect patients from harm – to keep them safe while under our care. To be useful in measuring performance to this obligation, a patient safety measurement system must distinguish *harm* from *bad outcomes* through a reliable, repeatable method.

The Safety Event Classification (SEC), shown in Figure 1, provides this method and is the foundation for patient safety measurement.

Most current event taxonomies are categorical classifications in that events are identified by event type, such as a wrong site procedure, fall with injury, or burn. In contrast, the SEC is an outcome-based classification system that takes event classification three steps further – the event is assessed for defects in care, or *deviations from generally accepted performance standards* (GAPS); a direct *cause-and-effect relationship* between deviations and the outcome is established, and, in the case of organizational or individual causation, the safety event is *classified according to level of patient harm* resulting from the event.

Figure 1. HPI Safety Event Classification (SEC)



[9] The World Health Organization, "The Conceptual Framework for the International Classification for Patient Safety," January 2009. Available online at http://www.who.int/patientsafety/taxonomy/en/. Accessed on 1March 2009.

Assessing for Deviations & Causation

Two of the three defining considerations of the SEC are the presence of a deviation from generally accepted performance standards (GAPS) and the extent to which the deviation caused the event.

Types of Deviations. There are two predominant types of performance deviations: (1) human acts, hereafter call *human errors*, and (2) equipment, device, and technology failures, hereafter called *equipment failures*. Human errors are the most common deviations leading to safety events. Human errors fall into five categories in the HPI Taxonomy of Individual Failure Modes (Appendix C-1) – competency of the individual, consciousness of the task at hand, communication of information, critical thinking in decision making, and compliance with known procedures and standards of care.

Human errors are the most proximate, or immediate, causes of safety events. Human performance, however, is heavily influenced by conditions in the organization's systems. System weaknesses fall into five categories in the HPI Taxonomy of System Failure Modes (Appendix C-2) – organizational structure, organizational culture, work processes, policies and protocol, and environment and technology. Root causes of events nearly always are found as deficiencies in organizational systems.

Identifying Deviations. An organization can confirm deviations from GAPS by comparing expected performance with actual performance. Wherever a difference exists between expected and actual performance, a deviation from GAPS exists. Two things should be considered when identifying deviations. First, internal practice expectations do not always reflect best practice performance standards in protecting patients from harm. Consideration of performance standards should include external as well as internal sources of information such as established policies, procedures, and protocols; nationally recognized best practices and standards of care; industry imposed practice mandates and requirements; implied professional practice standards; and objective clinical review by other experts (e.g., peer review). Second, standards rise over as a result of process improvements, advancements in technology, and clinical breakthroughs. What is considered a "generally accepted performance standard" today may in the future be assessed as a deficiency in care.

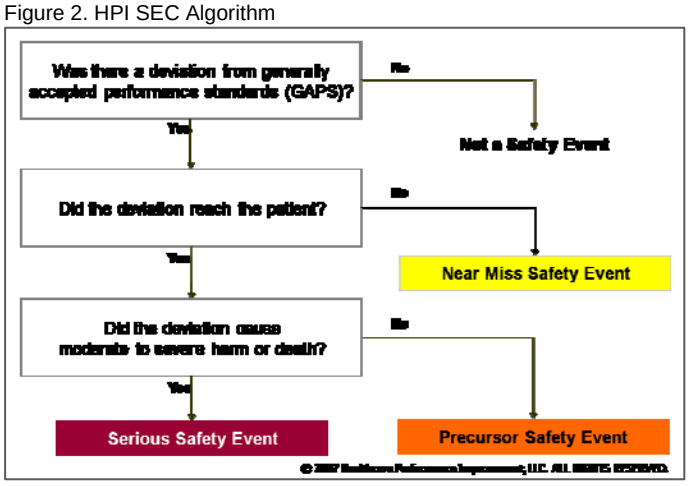
Assessing Causation. A direct cause-and-effect relationship between the deviation and the outcome to the patient is the second consideration in the SEC – did the deviation result in harm to the patient? While deviations from performance standards may coincide with a serious outcome, a direct cause and effect relationship between deviations and outcome may be difficult, and sometimes impossible, to determine. This may be the case when a patient is in critical condition or has other complications or co-morbidities (e.g., "the patient would have died anyway"). In such a case, the organization may be reluctant to declare a safety event or tend to downgrade the safety event classification. The ultimate goal of safety event classification and cause analysis is the identification and correction of root causes to prevent future events of harm. The organization can safeguard against safety event under-classification by considering its obligation *to do everything possible* to provide an uncompromised, safe experience – did the organization *best protect* the patient from harm, regardless of the ability to definitively prove a direct cause-and-effect relationship.

Organizational causation may not be immediately apparent. More evaluation, such as medical staff or nursing peer review, may be necessary to determine whether the organization deviated from performance standards. However, waiting until this determination is made could have an unacceptable impact on the quality of root cause analysis as information may be lost or degrade in the intervening time. Hospitals should move to collect and preserve critical information (e.g., statements from involved individuals, physical evidence) should a root cause analysis be deemed necessary based on the peer review results or other evaluation processes.

Assessing Outcome to the Patient

Once a deviation from generally accepted performance standards is identified, the third level of assessment assesses the level of harm experienced by the patient and determines the safety event classification. A **Serious Safety Event** results in harm that ranges from moderate to severe patient harm or death. A **Precursor Safety Event** results in minimal harm, no detectable harm, or no harm. In a **Near Miss Safety Event**, the initiating error is caught before it reaches the patient by either a detection barrier built into the process or, sometimes, by chance. The algorithm for determining safety event classification is shown in Figure 2.

Figure 2. HPI SEC Algorithm



The SEC Levels of Harm are outlined below in Table 1, and detailed definitions and event examples of each SEC level of harm are provided in Appendix D. A harmonization of the SEC and the National Coordinating Council for Medication Error Reporting and Prevention (NCC MERP) severity index is found in Appendix E. The SEC also has been harmonized with numerous state-specific reporting systems including Pennsylvania, Texas, and Florida. Harmonizations of the SEC with these and other state reporting system requirements are available upon request.

Table 1. HPI SEC Levels of Harm

HPI SEC	Code	Level of Harm
Serious Safety Event (SSE)	**SSE 1**	Death
	SSE 2	Severe Permanent Harm
	SSE 3	Moderate Permanent Harm
	SSE 4	Severe Temporary Harm
	SSE 5	Moderate Temporary Harm
Precursor Safety Event (PSE)	**PSE 1**	Minimal Permanent Harm
	PSE 2	Minimal Temporary Harm
	PSE 3	No Detectable Harm
	PSE 4	No Harm
Near Miss Safety Event (NME)	**NME 1**	Unplanned Catch
	NME 2	Last Strong Barrier Catch
	NME 3	Early Barrier Catch

Near Miss Safety Event Classification

When it comes to Near Miss Safety Events, classification is all about the strength of the detection barrier that caught the error before it reached the patient. The most significant Near Miss Safety Event is the ***Unplanned Catch***. The error passes through all detection barriers designed into the process (or there may be no detection barriers designed into the process at all), and it is caught by chance.

In a ***Last Strong Barrier Catch***, the error passes undetected through nearly *all* defense-in-depth barriers designed into the process and is caught by a last strong barrier. As an example, consider an event sequence set in motion when a physician, acting quickly under time pressure to get to the operating room to begin a surgical case, writes an order for an unsafe dose of Heparin. This is the active, initiating error. The pharmacist who receives the order thinks the dose is high but does not seek clarification and fills the order. The order entry system, designed with system alerts, does not have an established alert for this abnormally high dose. The patient's nurse, a new graduate with 3 months of experience, doesn't recognize the dose as abnormally high. According to hospital policy, the nurse calls upon another nurse to verify this high-risk drug prior to administration. The high dose is recognized by a last strong detection barrier of the independent verification by the second nurse, and a call is placed to the ordering physician to correct the dose.

The last strong detection barrier may reside early in related processes and not at the point of direct patient contact. Consider as an example the blood administration process which requires a type-and-cross-match of patient blood and blood product. Early in the process, a blood sample is drawn from the patient and a patient identification label is affixed to the sample. A break down in a two-person independent verification of the accuracy of specimen identification results in a switch of the labels of two patients requiring the type-and-cross-match process. Each label is affixed to the other patient's blood sample. While the rest of the process is performed accurately – blood type is determined, the blood product is matched to the identified blood type, and patient identification to ensure that the identifiers on the blood product match those of the patient and on the patient armband – it was performed accurately on the wrong blood sample. In this case, the last opportunity to detect the mislabeled specimen occurs early in the process. The error travels throughout the rest of the flawlessly performed process unbeknownst to the care providers processing the specimen or administering the blood.

Now replay the Heparin example. The ordering physician writes an order for an inappropriately high dose of Heparin. Yet this time, the receiving pharmacist who is concerned by the dose calls the ordering physician to clarify the order. A correction is made, and the error does not reach the patient. This type of Near Miss Safety Event is classified as an ***Early Barrier Catch***. While an error occurred, it is detected early within a well-functioning safety net of detection barriers. The Early Barrier Catch is the least significant of the Near Miss Safety Event categories.

Considering "Known Complications"

As previously referenced, clinical complications are a known and understood possible result of certain high-risk procedures, treatments, or tests. Yet the decision is made to continue with the procedure, treatment, or test because the potential benefit is thought to be worth the risk associated with the intervention. Known complications should be distinguished from safety events resulting from deviations from generally accepted standards of care. Distinguishing between known complications and safety events, however, can be challenging. HPI defined a Known Complications Test to help determine if an event is a known complication and, if so, whether providers did everything possible to prevent the negative outcome.

Four questions comprise the Known Complications Test and can be applied when a potential complication is identified. The first question considers the decision to proceed with the procedure, treatment, or test:

1. Was the procedure, treatment, or test appropriate or warranted for the patient based on nationally recognized standards of care?

If it is determined that care was not warranted, the decision to provide the procedure, treatment, or test should be considered a deviation from expected procedures or standards of care, and the event should be classified as a safety event for further evaluation. If the procedure, treatment, or test is determined to be appropriate and warranted, the next step is to determine if the event was either a known complication or a safety event using the following three questions:

2. Was the complication a known risk and was the standard of care employed to mitigate risk?
3. Was the complication identified in a timely manner?
4. Was the complication treated according to the standard of care and done in a timely manner?

An affirmative answer to each question suggests the outcome should be classified as a "known complication" in which there was no deviation from generally accepted performance standards and for which there was no organizational causation. If the answer to any of the questions is negative, the event is classified as a safety event. To prevent inappropriately labeling true safety events as known complications, conservative assessment should be applied. The burden of proof should rest in demonstrating that the outcome is not the result of a known complication, rather than demonstrating that the outcome was a known complication. An application example of the Known Complications Test is shown below.

Application Example of the HPI Known Complications Test

Consider a case of an undiscovered small bowel injury in a complex lysis of adhesions for small bowel obstruction. Forty-eight hours post-operative, the patient developed increasing abdominal pain and sepsis. A second operation showed a small perforation of the small bowel wall which was repaired successfully. Specific questions that the hospital may consider when applying the Known Complications Test are suggested below:

Question 1: Was the complication a known risk and were standard of care steps taken to mitigate it?

- *Does unplanned small bowel injury fall within the range of expected outcomes for a lysis of adhesions in a patient with multiple prior abdominal operations based on current literature and clinical experience?*
- *Was small bowel injury identified as a known risk in the informed consent process?*
- *Did the surgeon exhibit sufficient care in avoiding small bowel injury and did he/she take all reasonable steps to ascertain whether injury had occurred at the first procedure?*

Question 2: Was the complication identified in a timely manner?

- *Should the injury have been identified in the original procedure?*
- *Given that the injury was not identified at the original procedure, was the patient promptly and correctly treated once symptoms of the complication were manifest?*

Question 3: Was the complication treated according to standard of care and in a timely manner?

- *Was the failure to identify the injury at the original operation clearly below standard of care?*
- *Was the treatment of the complication, once apparent, promptly implemented and were all aspects of the repair procedure and the care of the patient in the perioperative period within the highest standards of care?*

Are All "Sentinel Events" & "Never Events" SEC Serious Safety Events?

Joint Commission sentinel events and NQF never events are *not necessarily* Serious Safety Events in the SEC. While Joint Commission sentinel events and NQF never events reach the patient, there are two reasons why these events may not qualify as a Serious Safety Event. First, the organization may have provided care that met standard of care and practice expectations. Second, the event may not result in level of harm associated with a SEC Serious Safety Event. A wrong site laminectomy provides an example of the second condition. A patient requires a laminectomy on vertebral levels 3

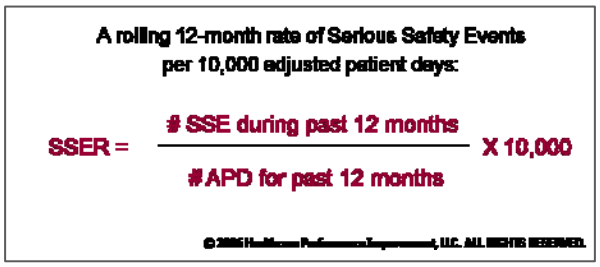
and 4. The plan of care is to perform the procedures in two separate operations. The patient consents for the procedure on vertebral level 3, however, the laminectomy is incorrectly performed on level 4. The event qualifies as a Joint Commission sentinel event and NQF never event, however, as the procedure resulted in no harm to the patient, the event is classified as a Precursor Safety Event in the SEC.

Case studies in safety event classification using the HPI SEC are found in Appendix F and can be used for individual or team consideration.

Section 3:
HPI Serious Safety Event Rate (SSER)

The SEC serves as the foundation for the calculation of the Serious Safety Event Rate (SSER). The SSER is a volume-adjusted measure of Serious Safety Events, those events occurring from a deviation from generally accepted performance standards and resulting in moderate to severe patient harm or death. The SSER is calculated monthly as the number of Serious Safety Events for the previous 12 months per 10,000 adjusted patient days for the same time period, as shown in Figure 3.

Figure 3. Serious Safety Event Rate calculation



The 12-month rolling rate provides two benefits. First, as Serious Safety Events do not occur frequently, it presents a clearer picture of event rate trend. Second, it rewards sustained improvement, rather than episodic improvement, in preventing Serious Safety Events. To achieve a "zero" SSER, the hospital must provide care that results in 12 consecutive Serious Safety Event-free months. The SSER can be used to determine baseline safety performance and to track effectiveness of efforts to improve reliability in patient safety performance.

Section 4:
Applying the HPI SEC & SSER Patient Safety Measurement System

The SEC and SSER complement the required and/or desired tracking and reporting of Joint Commission-defined sentinel events, NQF serious adverse safety events, and other state-required reportable events and serves to transcend variation in different event taxonomies that exist in healthcare today. Yet to enable a safety measurement system that provides a reliable and valid measure of safety performance over time, two factors are important – comprehensive capture of events and consistent application of the SEC classification criteria.

Comprehensive Capture of Events

Full knowledge of safety events ultimately begins with a culture that encourages reporting adverse outcomes and sharing information about errors and mistakes that are made in providing care and service. While reporting culture is not the focus of this paper, brief comment is offered on three factors that influence the health of reporting culture.

First, leaders, workers, and medical staff members have to know what should be reported. Most individuals report events that result in harm to the patient or have the significant potential to result in harm. It is less clear, however, of the need to report events that did not result in harm or errors or

mistakes that were caught before they reached the patient. The second issue impacting reporting is the fear employees have about error reporting. When organizational response to reporting is perceived as punitive to those involved in the event rather than seeking to understand the process and system factors that influenced the individual's decision making, employees are less inclined to report an event. Finally, the reporting process must be as simple as possible, i.e., employees need to perceive that the burden to report is worth the effort. Building and sustaining a healthy reporting culture is an ongoing process, yet it is important to recognize this as a factor that can influence the accuracy of SSER in reflecting the safety performance of the organization.

Comprehensive capture of safety events requires that the organization proactively seek possible events that might qualify as a safety event. Rather than waiting for events to be "pushed" for consideration, having a clearly defined "pull system" is important. While some hospitals have adopted centralized reporting and data repository for error and events, most hospitals have multiple reporting processes and information systems. At a minimum, the following should be considered as sources of events for assessment as Serious Safety Events:

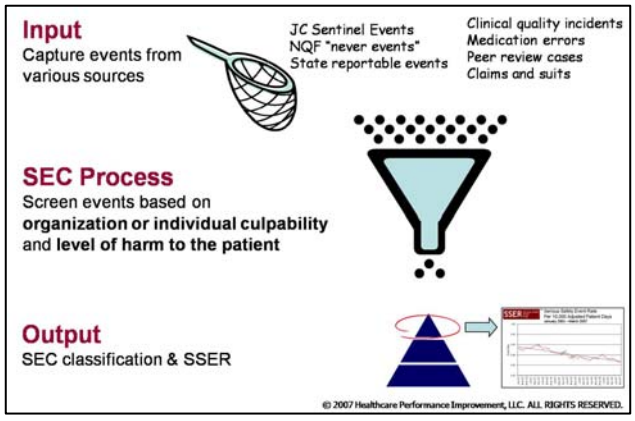
- Events qualifying as Joint Commission-defined sentinel events;
- State-reportable safety events and/or other regionally recognized reportable event;
- Clinical quality indicator incident and surveillance data including, but not limited to, nationally established NQF never events and AHRQ Adult and Pediatric Patient Safety Indicator variances such as falls with injury, stage 3 and 4 pressure ulcers, restraint use with injury, and hospital-acquired infections resuscitation codes;
- Events reported through the medical and nursing peer review process;
- Global triggers or adverse drug events classified by NCC MERP criteria C through I
- Patient concerns or complaints; and
- Claims and suits.

Consistent Application of HPI SEC Criteria

Several factors may contribute to variation in accuracy of event capture and thus lead to an SSER numerator that does not reflect the true number of Serious Safety Events in the organization. The first factor is deficiencies in event reporting, as discussed above under "Comprehensive Capture of Events." Second, the organization may exclude, or omit, certain types of Serious Safety Events (e.g., hospital acquired infections, safety events classified as peer review cases) from the SSER calculation. These may be deliberate exclusions, or the exclusions may not be recognized because the event has been normalized and not perceived as a Serious Safety Event. The third factor is inter-rater variation in classification of safety events with outcomes that fall at the border of moderate to minimal harm.

The effectiveness of any measurement system requires consistent application over time. While it is important to accurately classify events in the SEC, it is more important to *consistently* classify events in the SEC categories to ensure a reliable lagging indicator of organizational patient safety performance. This requires that the safety event determination is made by a group of knowledgeable, objective individuals. To maximize consistency in event classification, many organizations using the SEC have trained a small, defined group in safety event classification and charged this group with the responsibility of determining the final classification of a safety event.

Figure 4. Serious Safety Event detection and screening



HPI Safety Event Detection Assessment Survey for Hospitals℠

The step-wise approach for identifying possible safety events, accurately screening events to determine if they are Serious Safety Events, and calculating the SSER is shown in Figure 4. HPI developed the Safety Event Detection Assessment Survey for Hospitals to aid organizations in assessing the comprehensiveness of safety event detection capabilities and effectiveness of event classification processes. Survey questions are designed to assess the health of the organization's reporting culture; safety event reporting processes; structures for "casting a wide net" to ensure comprehensive identification of potential safety events; and methods of screening potential events to determine classification as a safety event. Survey results assist the organization in identifying strengths and gaps in safety event detection and screening processes that enable action planning to further develop and advance capabilities. Results from the survey administration can be compared to better practice organizations for benchmarking.

Application of SSER as a Safety Metric

Due to variation in event capture across organizations in the healthcare industry, HPI does not recommend comparing the actual, discrete SSER of one organization with the SSER of another organization for the purpose of goal setting or drawing conclusions about which organization is more or less safe. However, comparisons of the direction of SSER trend lines based on marked milestones and comparisons of the percent of SSER reduction following implementation of safety culture improvement efforts provide valuable benchmarking information.

Within organizations and across organizations using the SEC and SSER, HPI sees and expects to continue to see a decrease in the variation of SEC application. This occurs as organizations strengthen event reporting, increase self-awareness of organization contribution to safety events, and refine event classification at the line of moderate harm and minimal harm. At the time of this writing, a pilot group of organizations have engaged in self-assessing their safety event detection and screening capabilities, identifying best practices in these areas, and refining processes to reduce cross organization variability in event detection and screening. As hospitals work collaboratively to reduce variation and improve inter-rater reliability, the SSER has the potential to become a very useful comparative indicator across organizations.