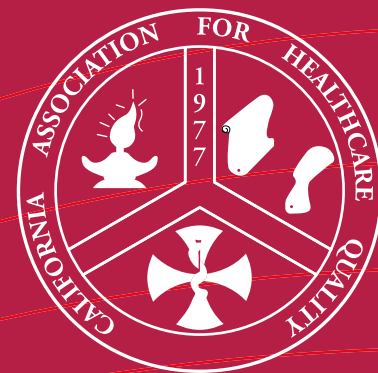


CAHQ JOURNAL



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**Business Case For
Patient Safety**

**Rapid Response Teams
Run, Don't Walk...**

**Spring Conference
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THE BUSINESS CASE FOR PATIENT SAFETY



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Investing in patient safety initiatives makes good business sense. Proactively investing in error-reduction initiatives provides a hospital with a strategic business position to compete in the marketplace. Demonstrating the case for patient safety helps California hospitals to prioritize investments that foster the delivery of safe, efficient, and high quality care. This article presents the dramatic costs of patient safety violations, shows the benefits of patient safety interventions, and highlights the directions where safety leaders are investing in cost-effective, evidence-based patient safety solutions.

I. The Economic Burden of Patient Safety Violations and Medical Errors

Medical errors are prevalent, expensive, and often preventable. Consider this case: “A Denver hospital gave a

newborn infant a tenfold overdose of penicillin in case it had been infected with syphilis from its mother. Nurses balked at giving the baby five injections so administered the medicine in what turned out to be an unusual and improper way—intravenously. The baby

died, and the autopsy showed it did not have syphilis and never needed the treatment in the first place.”^{1, 2}

Medical errors affect a hospital’s bottom line. Accidental deaths and serious injuries compromise patient care, increase economic burden, im-

pair profitability, and weaken organizational performance and staff morale. Hospitals suffer substantial personnel, regulatory, marketing, and legal costs because of medical errors and patient injuries. It is estimated that within U.S. hospitals, medical errors could unnecessarily cost the healthcare system between \$17 to \$29 billion annually causing up to 98,000 deaths per year.^{3,4}

Costs of adverse drug events are a major economic burden to hospitals. Patient injuries resulting from the medication process alone are one of the most common types of medical errors. Nationwide, at least 1.5 million preventable adverse drug events occur in the United States each year causing 106,000 deaths annually.^{2, 5, 6} In the hospital setting, between 380,000 to 450,000 patients experience a preventable adverse drug event adding about \$3.5 billion per year to total hospital costs.² Medication errors occur throughout the entire process, but are most common in the ordering and administration phases. This is especially true among pediatric care in hospitals.

Adverse drug events increase risk of injury and mortality. Adverse drug events (ADEs) double the risk of death.⁷ Serious ADEs are the fourth leading cause of death.⁸

Preventable adverse drugs events increase length of hospital stay. Patients who experience ADEs are hospitalized an average of 8 to 12 days longer than patients who do not suffer these events, and their hospitalization costs \$16,000 to \$24,000 more. The

ADE Prevention Study estimates that the additional length of stay associated with a preventable ADE is 4.6 days, with an increase in total cost of \$8,750 in 2006 dollars.^{2, 9} The annual costs attributable to preventable ADEs for a 700-bed teaching hospital result in an additional \$2.8 million per year.⁹

Hospital admission costs related to a previous ADE increases economic burden. Hospital admissions due to a previous ADE are expensive, mostly severe, and often preventable.¹⁰ A study in one tertiary care hospital found that 1.4 percent of admissions were caused by a previous ADE with estimated costs of \$16,177 per ADE, \$10,375 per preventable ADE, and \$1.2 million per year for preventable ADEs.¹⁰

Emergency room costs related to a previous ADE are considerable. A cost analysis of drug-related illnesses associated with visits to a 560-bed teaching hospital emergency department found an estimated 66 percent of preventable ADEs with \$391,342 in annual Emergency Department (ED) and hospital costs in 1994.¹¹ The previous costs of treatment among those with a preventable ADE were \$308 for those who were not hospitalized and \$2,752 for those who were.¹¹

Emergency department adverse drug events are preventable and costly. In a study of preventable medication-related emergency department visits, of the 253 patients interviewed, 71 patients (28.1 percent) had a medication-related visit.¹² Of the 71 patients, 50 (70.4 percent) were preventable with an average cost of \$1,444 per

each preventable medication-related visit.¹²

Hospital-acquired infections are substantial and compromise the bottom line. About two million people annually acquire an infection at U.S. hospitals at a total cost of more than \$4.5 billion.^{13, 14, 15} Mortality associated with hospital-acquired bloodstream infections is 23.8 percent to 50 percent and 14.8 percent to 71 percent for pneumonia.¹⁴ The excess length of stay due to these infections is one to four days for urinary tract infections, 7 to 8.2 days for surgical site infections, 7 to 21 days for bloodstream infections, and 6.8 to 30 days for pneumonia.¹⁴ The estimated average cost is \$2,734 for each surgical site infection, \$3,061 to \$40,000 for each bloodstream infection, and \$4,947 for each pneumonia.¹⁴ Hospitals lose from \$583 to \$4,886 for each hospital-acquired infection.¹⁴ MRSA, a type of bacteria (*Staphylococcus aureus*) resistant to many antibiotics, is a major healthcare-acquired infection. In fact, 26.6 percent of patients with MRSA are hospital-onset associated.¹⁶

Medical errors have major financial impact. Hospitals are major targets of personal injury lawsuits. Patient safety initiatives mitigate medical errors preventing financial losses associated with these events. Patient safety violations consume additional resources since hospitals have to pursue litigation defense, paying awards and settlements. The average claim related to liability for an adverse drug related event is estimated to be between \$376,000¹⁷ and \$668,000.¹⁸ A study found that claims

for ADEs were in excess of \$19 million for the 10-year period of the study.¹⁷ In an ADE study of the Veterans Administration (VA) facilities, 37 percent of tort claims resulted in payments that averaged \$138,800.¹⁹ Another study found 40 cases of wrong-site surgery among 1,153 malpractice claims.²⁰

Malpractice litigation affects hospitals, providers, and patients. Malpractice litigation has substantial effects on hospitals and providers including lost practice time, damage to reputation, emotional stress, and insurance losses.¹⁷ Providers may perceive malpractice litigation as a barrier for

reducing errors.^{21, 22} Similarly, patients suffer financial, physical, and emotional consequences because of medical errors and litigation.

Organizational Benefits of Investing in Patient Safety Initiatives

| Areas | Impact of Patient Safety Violations | Impact of Patient Safety Initiatives |
|----------------------------|---|---|
| Financial | <ul style="list-style-type: none"> • Decrease profit margins • Increase direct and indirect costs • Threat to organizational survival | <ul style="list-style-type: none"> • Decrease costs • Prepare for pay-for-performance • Increase capacity and infrastructure |
| Clinical | <ul style="list-style-type: none"> • Compromise quality of care • Reduce organizational performance • Promote variability in service delivery • Increase inappropriate care • Promote costly duplication of services | <ul style="list-style-type: none"> • Improve clinical quality indicators • Increase adherence to care guidelines • Provide better patient care • Increase workflow efficiencies • Enhance process design |
| Technological | <ul style="list-style-type: none"> • Use paper-based patient chart that was developed over 100 years ago • Write illegible and incomplete orders fraught with errors | <ul style="list-style-type: none"> • Decrease medication errors • Support coordinated care management • Optimize access to clinical data • Increase ability for electronic ordering |
| Culture | <ul style="list-style-type: none"> • Promote a “blame” culture • Increase fear of error disclosure | <ul style="list-style-type: none"> • Foster a culture of safety • Maximize error interception |
| Legal | <ul style="list-style-type: none"> • Consume additional resources pursuing litigation defense, paying settlements and awards | <ul style="list-style-type: none"> • Avoid exposure to liability • Increase documentation accuracy • Reduce insurance premiums |
| Legislation | <ul style="list-style-type: none"> • Potential sanctions and litigation | <ul style="list-style-type: none"> • Comply with patient safety standards |
| Human Resources | <ul style="list-style-type: none"> • Increase recruitment costs of scarce human resources • Compromise employee morale • Reduce patient and family satisfaction | <ul style="list-style-type: none"> • Increase provider and patient satisfaction • Increase provider-patient communication • Higher productivity with efficient process • Ease provider recruitment |
| Measurement | <ul style="list-style-type: none"> • Threaten transparency and accountability • Reduce provider and system feedback • Delay patient safety improvement • May compromise HIPAA requirements | <ul style="list-style-type: none"> • Enhance surveillance and monitoring • Prepare for public reporting • Enhance benchmarking and goal settings • Increase patient confidentiality |
| Marketing | <ul style="list-style-type: none"> • Tarnish reputation and brand identity • Decrease public confidence • Decrease new business initiatives | <ul style="list-style-type: none"> • Build good will and reputation • Elevate brand image and differentiation • Increase revenue by bringing new patients |
| Accreditation Stakeholders | <ul style="list-style-type: none"> • Increase regulatory costs • Duplication of efforts and messages • Uncoordinated safety requirements | <ul style="list-style-type: none"> • Maintain accreditation • Simplify HIPAA compliance • Align with other organizations |

2. Patient Safety Interventions Make Good Business Sense

Hospitals that are investing in patient safety decrease costs, improve clinical quality indicators, increase workflow efficiencies, and avoid exposure to malpractice litigation. The following table presents a summary of organizational costs and potential benefits of patient safety practice initiatives over multiple organizational areas.

The benefits of creating safe operation of systems and processes that minimize errors and accidental injury are substantial:

Patient safety initiatives increase efficient workflow redesign and provider time for patient care. Safety culture and workflow redesign initia-

tives streamline clinical processes and decrease administrative time. Healthcare providers and patients often report positive satisfaction levels in highly efficient healthcare systems. Increased workflow efficiencies result in less time for administrative and redundant tasks, and more time for patient care.

Patient safety and quality improvement interventions make good business sense. A pilot project conducted by Virginia Health Quality Center (VHQC)-RAND for the Centers for Medicare & Medicaid Services (CMS) concluded that electronic health records, patient registries, reminder systems, and standing orders save money and improve clinical outcomes.²³ These quality improvement interventions can decrease costs, increase revenues, and lead to increased profitability.

Patient safety initiatives establish infrastructure to facilitate evidence-based care. Research has documented considerable savings from adherence to evidence-based quality and patient safety guidelines. Clinicians are more likely to promote evidence-based care and achieve better clinical outcomes and patient satisfaction. Systems improvement increases a hospital's bottom line, reduces staff turnover, and produces better care.

Safer practices foster better communication, care coordination, and patient outcomes. Safer clinical procedures improve provider-patient communication, reduce fragmentation of care, and produce better clinical health outcomes. Also, higher patient satisfaction is associated with perceptions of safer procedures, physician communication, and team coordination.^{30, 31, 32}

The Business Case for Quality and Patient Safety in Hospitals: A Pilot Study

| Patient Safety and Quality Improvement Pilot Project |
|---|
| <ul style="list-style-type: none"> System Change Strategies are Cost-effective in Hospitals. Standing orders, clinical pathways, fast track protocols, and comprehensive case management systems reduce the average length of stay, improve clinical outcomes, increase patient satisfaction, and produce annual savings that range from \$15,000 to \$187,000.²³ |
| <ul style="list-style-type: none"> Standing Orders and Clinical Pathways. A large, acute-care hospital invested \$3,674 to develop and implement a set of standing orders and clinical pathways for its 400 acute myocardial infarction (AMI) patients each year. This process change has reduced the average length of stay, resulting in a financial benefit of \$53,000 annually.²³ |
| <ul style="list-style-type: none"> Fast Track Protocol. Heavily publicizing a new fast track protocol for patients with chest pain allowed an acute care hospital to admit additional patients while reducing average length of stay (ALOS), increasing patient profits by nearly \$135,000 annually and reducing the hospital's exposure to denials of payment for unnecessary admissions.²³ |
| <ul style="list-style-type: none"> Clinical Pathways. Creating a set of clinical pathways allowed one hospital to ensure that its pneumonia patients receive antibiotics more quickly. This intervention resulted in a sizeable average length of stay reduction and staff efficiencies, saving the facility more than \$30,000 annually.²³ |
| <ul style="list-style-type: none"> Comprehensive Case Management System. One urban medical center developed a comprehensive case management system for pneumonia patients, involving standing orders, physician reminders, and patient education resulting in \$187,000 in annual cost savings as a result of an average length of stay reduction.²³ |

Source: Virginia Health Quality Center. *Quality Makes Good Business Sense. Key Findings From The Making the Case For Business Benefits of HCQIP Projects.* Special Study, 2003.

Savings from Adherence to Evidence-Based Quality and Patient Safety Guidelines

| Condition | Reported Cost Savings |
|-----------------------------|---|
| Heart Failure | <ul style="list-style-type: none"> In patients with a diagnosis of heart failure, exposure to angiotensin converting enzyme (ACE) inhibitor therapy is associated with fewer hospitalizations and lower total costs (mean \$2,397) than no ACE inhibitor therapy.²⁴ |
| Pneumonia | <ul style="list-style-type: none"> Effective pneumonia treatment - early initiation of antibiotic therapy in the emergency department and the use of a case manager responsible for evaluating adherence to practice guidelines - resulted in a cost savings of \$267,410 in a sample of 143 patients.²⁵ |
| Surgical Complications | <ul style="list-style-type: none"> Patients who develop surgical site infections have longer and costlier hospitalizations than patients who do not develop such infections. They are twice as likely to die, 60 percent more likely to spend time in an intensive care unit, and more than five times more likely to be readmitted to the hospital. The median direct costs of hospitalization were \$7,531 for infected patients and \$3,844 for uninfected patients. The excess direct costs attributable to surgical site infections were \$3,089.26 Programs that reduce the incidence of surgical site infections can substantially decrease morbidity and mortality and reduce the economic burden for patients and hospitals.²⁶ |
| Acute Myocardial Infarction | <ul style="list-style-type: none"> As a result of the paper-based reminder system stressing CMS quality performance measures for AMI, including early administration of aspirin and beta blockers, smoking cessation counseling, and administration of ACE inhibitors and aspirin on discharge - one facility was able to decrease the average length of stay for AMI patients by 0.51 days and improve its quality performance measures. Assuming a hospital can save approximately \$450 in incremental costs for each day subtracted from the end of a stay, this change saved the facility \$1,607 per month due to the average length of stay reduction.²³ |
| Reducing Staff Turnover | <ul style="list-style-type: none"> Staff turnover compromises patient safety. In fact, the Joint Commission has concluded that actions taken to increase nurse retention improve the business case for patient safety interventions.²⁷ The Advisory Board estimated an annual \$800,000 savings for a 500-bed hospital that reduced staff turnover rates from 13 percent to 10 percent.²⁸ In addition, the Voluntary Hospital Association (VHA) has estimated that an average hospital spends \$5.52 million per year on turnover costs and that a reduction in turnover of 20 percent to 15 percent would result in an average savings of \$1.38 million per year. Organizations with high turnover rates (≥ 21 percent) had a 36 percent higher cost per discharge when compared to those hospitals with a lower turnover rate (≤ 22 percent). Hospitals with lower turnover rates (4-12 percent) had a 6 percent higher return on assets when compared to hospitals with higher turnover rates (> 22 percent).²⁹ |

Safer hospitals enhance reputation and protect brand name. Hospitals can capitalize on an improved reputation and enhanced community image by showing superior quality performance. Proactively investing in patient safety enhances prestige and protects brand names. Hospitals that emphasize the provision of high-quality,

safety, and efficient healthcare services attract new patients generating better revenues.^{33, 34} They increase reputation, community image, and have satisfied patients.³⁵ Organizations can capitalize on reputation by disseminating superior quality performance.³⁵ Therefore, proactive investing in patient safety could enhance prestige, protect brand names,

improving patient volume and high-quality providers.³⁵

Investing in safety culture improves human capital, which improves provider and patient satisfaction. Safer hospitals improve patient volume, retain high-quality providers, and enhance satisfaction generating increased revenues. Hospitals that in-

vest in safety cultures are more likely to recruit and retain high-quality employees. Because patient safety culture and office-redesign initiatives can streamline clinical processes, reduce medical errors, and decrease administrative time, healthcare providers and patients frequently report positive satisfaction levels with use of such systems.³⁶ Increased patient safety standardization and efficiencies can result in less time for administrative and redundant tasks, more time for patient care, and increase patient satisfaction.

On the other hand, unsafe hospital practices make it more difficult to recruit clinical staff. Unsafe work environments and inefficient clinical processes are unattractive for health-

care workers. Patient safety violations increase recruitment costs, affect employee morale, and reduce provider satisfaction. Medical errors also make it more difficult to attract high-quality staff. Turnover compromises coordination of care, increases stress on existing staff, and negatively affects patient safety and outcomes. Not surprisingly, there is public dissatisfaction with healthcare safety and quality. In a 2004 national survey, half of patients are worried about the safety of their care, and 55 percent said that they are currently dissatisfied with the quality of healthcare.³⁷ Forty percent believe that the quality of healthcare has “gotten worse” in the past five years, whereas only 17 percent think it is better.³⁷

Investing in patient safety technology reduces serious medical errors and produces positive return on investment. “Wired hospitals” have higher productivity, better control of expenses, and more efficient utilization management than non-wired hospitals. Electronic healthcare record systems maximize access to information, increase workflow efficiencies, support fully-integrated patient care, provide population management, simplify HIPAA compliance, and prepare for pay-for-performance initiatives. Health information technology return on investment is positive with increasing gains depending on the level of functionalities. Consider the following statistics:

Clinical Decision Support Systems Increase Healthcare Quality and Patient Safety

| Condition | Reported Benefits |
|-------------------------------------|--|
| Reduce Medication Errors | A clinical decision support system in conjunction with a CPOE produced a 83 percent reduction in serious medication errors at an academic medical center. ^{33, 40} |
| Improve Preventive Care | Computerized reminder systems increase the use of preventive services and are more cost-effective than non-computerized reminders. Two meta-analyses showed that reminder systems improve clinicians’ use of blood pressure assessment, Papanicolaou tests, vaccinations, and colorectal and breast cancer screenings exams. ^{41, 42} |
| Improve Management Care and Quality | Clinical information systems are effective in supporting provider and patient reminders and in assisting with patient education and treatment planning. A review of 98 randomized clinical trials to assess the clinical value of computerized information services found that provider prompts and patient reminders, and computer-assisted patient education and treatment planning were significant interventions to improve clinical outcomes. ⁴³ |
| Reduce Drug Cost | Because physicians have access to evidence-based information through Electronic Health Record systems, they can reduce medication costs. In a study, researchers estimated that 6-month savings from new prescriptions and refills were about \$3,450 per clinician. ⁴⁴ |
| Improved Drug Administration | In a 650-bed community teaching hospital during a 6-month period, a computer alert system fired 1,116 times: 596 were true-positive alerts (53 percent). ⁴⁵ These alerts identified opportunities to prevent injury at a rate of 64 per 1,000 admissions. A computer alert system can effectively prevent injury from adverse drug events. ⁴⁵ |
| Other Benefits | Decision support systems can also reduce length of stay and decrease time needed for ordering appropriate treatment. ^{34, 46} |

- A study estimated a net benefit from using an EHR system for a five-year period at \$86,400 per provider.³⁸ The financial benefit of implementing an EHR system was positive in the long run.
- A study of a 40-physician ambulatory care medical group found an estimated net present value for the EHR system of \$279,670.³⁹ Financial benefits come from savings in drug expenditures (33 percent), improved utilization of radiology tests (17 percent), improvements in charge capture (15 percent), and decreased billing errors (15 percent).³⁸
- Other clinical support technologies in conjunction with a Computerized Physician Order Entry

(CPOE) system produced an 83 percent reduction in serious medication errors with savings of \$5 million to \$10 million annually.^{33, 40}

Investing in patient safety initiatives improves performance measurement and public reporting. Safer hospitals improve performance measures and incident reporting systems. There is a national movement toward incident reporting systems, publicly reported measures, and pay-for-performance initiatives that is accelerating the implementation of patient safety initiatives. The core of this movement is the concept of transparency, accountability, and measurement.⁴⁷ The process of developing, validating, standardizing, reporting, and providing feedback to healthcare providers is creating mo-

mentum among hospitals, purchasers, providers, safety organizations, and the general public.⁴⁷

Hospitals that accelerate incident reporting systems and performance-based measures using the following principles designed by the Institute of Medicine will be successful in patient safety standard reporting requirements:

- Comprehensive measurement
- Evidence-based goals and measures
- Longitudinal measurement
- Supportive of multiple uses and stakeholders
- Measurement intrinsic to care
- Patient and population level measurement
- Shared accountability
- Independent and sustainable learning system

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NAHQ Update

GREETINGS, NAHQ MEMBERS!

The beginning of a new year brings a fresh start for new officers, volunteer opportunities, and continuing steps toward NAHQ's vision of being universally recognized as an essential connection and leading resource for healthcare quality professionals.

NAHQ 2008 Officers

We are pleased to welcome NAHQ's 2008 [Officers](#):

- President: Thomas M. Smith, MA RN CPHQ
- President-Elect: Catherine Munn,

MPH RHIA CPHQ

- Immediate Past President: Heidi Benson, MS RN CPHQ FNAHQ
- Secretary-Treasurer: Sandra Grinder, MSN RN CPHQ
- Professional Development Director: Linda Scribner, BA CPHQ
- Member Services Director: Lenard L. Parisi, MA RN CPHQ FNAHQ
- HQCB Chair: David S. Loose, MSN CNA RN CPHQ
- Executive Director: Stacy Sochacki, MS (ex-officio).

The deadline for nominations for

2008 was January 18, 2008.

Fellowship

The NAHQ [Fellowship Program](#) was developed by the Healthcare Quality Foundation both to recognize NAHQ members who have made outstanding contributions to the field of healthcare quality and to act as a blueprint for an ideal career path in the healthcare quality profession.

Consideration of an applicant for fellowship includes review of the applicant's credentials, employment background, and education. The NAHQ

our population. Our goal is to improve patient care and outcomes while at the same time support our staff as they provide the most difficult care.

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Patient Safety

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Investing in patient safety initiatives prepares for pay-for-performance and publicly reporting initiatives. Purchasers and leading insurers are putting more attention to patient safety and healthcare quality using quality measures.³⁵ Initiatives that reduce errors by adopting health information technology (HIT) and other strategies can provide hospitals with improved reimbursement rates and prepare for pay-for-performance initiatives. For example, the Leapfrog Group—a consortium of companies and health purchasers—is providing incentives for hospitals to implement HIT to reduce medical errors. Hospitals that develop valid and reliable incident reporting systems, educate healthcare providers in medical errors, and adopt technology and other related strategies to enhance patient safety, are preparing for pay-for-performance initiatives. Also, the PCMS Premier Hospital Quality Incentive Demonstration initiative showed that hospitals participating in this proj-

ect had significantly higher composite quality scores in each indicator of the study (AMI, pneumonia, heart failure), accelerating the adoption of evidence-based practices.⁴⁸

Numerous public and private entities have begun posting publicly accessible and searchable indices of a hospital's performance in quality care:

- [CMS Hospital Quality Measures](#)
- [Premier Hospital Quality Safety](#)
- [US DHHS Hospital Compare](#)
- [California Hospital Compare](#)
- [National Voluntary Hospital Reporting Initiative](#)
- [PacifiCare Quality](#)
- [Health Scope Hospital Ratings](#)
- [California Healthcare Foundation, Patients' Evaluation of Performance in California](#)
- [The LeapFrog Group](#)
- [Health Grades](#)

Investing in patient safety provider education and system improvement are cost effective strategies. Collaborative learning increased patient safety medications. A quality improvement

project designated to reduce ADEs within the Veterans Affairs (VA) system using the Institute for Healthcare Improvement collaborative methods avoided between 589 and 740 serious or potentially life-threatening medication errors at an estimated direct care cost savings between \$3.47 million and \$12.13 million for the six months of the study.¹⁹ At six month follow-up, the team remained intact, continued to collect data, and maintained their gains.¹⁹ A program to reduce injuries to caregivers in handling patients at the Veterans Health Administration (VHA) that involved an ergonomic assessment protocol, patient handling technology, decision algorithms to select equipment, and guidelines for safe patient handling, decreased incidence and severity of injuries, produced satisfaction with the equipment, decreased workers' compensation claims \$200,000 per year, and a payback of 4.30 years.⁴⁹ Also, having a pharmacist participating in patient rounds with the Intensive Care Unit (ICU) team, Brigham and

Women's Hospital reduced the ADE rate in its ICU from 33.0 to 11.6 per 1,000 patient day.^{50, 51}

Investing in patient safety initiatives helps reduce deficient hospital care and persistent healthcare disparities.⁵² A broad body of research has documented deficiencies in patient safety and healthcare quality: only 50 percent of patients receive recommended preventive care;⁵³ persistent healthcare disparities across a range of illnesses and healthcare services has been found;^{54 55} and more than half of patients are worried about the safety of their care and the quality of healthcare they receive.³⁷ Researches have found a major association between a patient's health literacy, healthcare provider communication, and patient safety.⁵⁶⁵⁷ Investing in patient safety initiatives that increase healthcare provider-patient communication, cultural competency, and language access are valuable patient safety strategies that help reduce healthcare disparities and improve patient satisfaction and clinical outcomes. Consider the high costs of not having proper communication and linguistic access:

A 22-year-old, non-English-speaking man was awarded a lifetime settlement of \$71 million because the emergency department failed to detect a stroke. His mother used the Spanish word "intoxicado" but the ED staff understood that he had a drug overdose.⁵⁸ Like in this case, medical errors are prevalent, expensive, and often preventable. It is estimated that within U.S. hospitals, medical errors could unnecessarily cost

the healthcare system between \$17 and \$29 billion annually causing up to 98,000 deaths per year.^{3, 4}

The family of a deceased 36-year-old Low English Proficiency (LEP) woman received \$900,000 in a settlement after her flu-like symptoms turned out to be a fatal case of bacterial meningitis. This hospital ED staff treated and discharged her, using one of the patient's semi-fluent friends as an interpreter. Key symptoms were never interpreted, leading to misdiagnosis and the patient's death.⁵⁸

Investing in safer patient initiatives facilitates accreditation and partnerships with stakeholders. Stakeholders, accreditation agencies, and patient safety organizations are working together to create an environment that fosters safety measures. Aligning with patient safety stakeholders will bring strategic benefits to California hospitals promoting a unified message, common goals, and standard measures. CMS's quality improvement initiatives; Institute of Medicine's reports on patient safety and medical errors; Institute for Healthcare Improvement's Five Million Lives campaign; National Quality Forum's "Never Events"; and the Agency for Healthcare Research and Quality's patient safety and quality initiatives, to name a few, are aligned with the Joint Commission 2008 National Patient Safety Goals.

Investing in patient safety initiatives moves a hospital toward achieving the Joint Commission's 2008 National Patient Safety Goals. Proactive investing in patient safety initia-

tives provides a hospital with a strategic position to more rapidly achieve the Joint Commission's 2008 National Safety Goals, which are to:

- Improve the accuracy of patient identification.
- Improve the effectiveness of communication among caregivers.
- Improve the safety of using medications.
- Reduce the risk of healthcare-associated infections.
- Accurately and completely reconcile medications across the continuum of care.
- Reduce the risk of patient harm resulting from falls.
- Reduce the risk of influenza and pneumococcal disease in institutionalized older adults.
- Reduce the risk of surgical fires
- Encourage patients' active involvement in their own care as a patient safety strategy.
- Hospital acquired pressure ulcers (decubitus ulcers).

Hospitals that invest in error-reduction initiatives now are better prepared for patient safety legislation requirements. Legislation is a contributing force to adopt patient safety initiatives in hospitals. About one-third of the states have established mandatory reporting of errors following recommendations from the Institute of Medicine's To Err is Human and in part because of fear of litigation.⁶⁰ California legislation mandating a plan to substantially reduce hospital medication errors has generated an unprecedented amount of patient safety activity.⁶¹

Selected Organizations Accelerating the Patient Safety Movement

| Organizations | Description |
|--|---|
| Joint Commission | Requires organizations to establish quality and patient safety standards and monitor performance. |
| CMS Services | Implements quality and safety improvement initiatives in hospitals and other clinical healthcare settings. |
| Institute of Medicine | Calls for mandatory reporting of medical errors in the U.S. |
| OSHA Occupational Safety and Health Administration | Requires reporting of all occupational injuries and illnesses. |
| National Patient Safety Foundation | Acts as a resource for improving the safety of patients by bringing together diverse stakeholders, and holding annual congresses on patient safety. |
| Agency for Healthcare Research and Quality | Promotes research in the areas of patient safety and quality improvement. |
| The Commonwealth Fund | Releases a report presenting 10 case studies of healthcare organizations that have designed and implemented patient safety initiatives. |
| Institute for Healthcare Improvement | Accelerates change in healthcare quality and patient safety initiatives. |
| Leapfrog Group | Promotes safety measures: CPOE adoption, evidence-based hospital referral, ICU staffing by physicians trained in critical care medicine. |
| United States Pharmacopeia | Standards-setting organization for all prescription and over-the-counter medicines, dietary supplements, and other healthcare products manufactured and sold in the United States. |
| National Quality Forum | “Never Events” are errors that should never, ever happen such as medication errors and wrong-site surgery. Never events are clearly identifiable, largely preventable, and serious adverse events for patients and healthcare organizations. ⁵⁹ NQF identified 27 adverse events in six major categories: Surgical events, product or device events, patient protection events, care management events, environmental events, and criminal events. |

Examples of state error reduction legislation are:

- The approval of legislation **SB 1875** in 2002 that required hospitals, as a condition of licensure, to create medication error reduction plans.^{62, 63}
- The **Patient Safety and Quality Improvement Act of 2005**, which mandates the creation of Patient Safety Organizations (PSOs) to collect, aggregate, and analyze

confidential information reported by healthcare providers.

- California Legislation Requires Quality Assurance Programs in Pharmacies, the California passed Senate Bill 1339 in 2000, which requires pharmacies to establish quality assurance programs to reduce the frequency of medication errors and requires the Board of Pharmacy to adopt a regulation specifying the requirements

of a pharmacy quality assurance program. A goal of the legislation was to move the quality improvement process away from blaming individuals and move towards improving systems to minimize future occurrences of medication errors.

- **SB 797**, that establishes a prescription-monitoring program in the Department of Health and Senior Services.

- **SB 1301**, that requires DHS to conduct onsite investigations of adverse events and complaints involving general acute care, acute psychiatric, or special hospitals within specified timelines, and requires the department to conduct

periodic unannounced inspections not less than once per year of health facilities that have reported adverse events.

Patient Safety Organizational Needs Assessment

Lumetra has developed a patient safety needs assessment that helps healthcare organizations identify organizational needs regarding patient safety issues.

| Patient safety POTENTIAL ORGANIZATIONAL GAPS – Which areas represent possible areas for improvement in your organization? | Check all that Apply (√) |
|---|---------------------------|
| Leadership—Involve senior leaders, CEO, and Board on patient safety issues | |
| Systems—Create patient safety systems, policies, procedures, and processes | |
| Requirements—Fulfill patient safety directives and regulatory requirements | |
| Culture—Establish a culture that makes patient safety a top priority | |
| Education—Conduct house-wide staff training on patient safety principles | |
| Communication—Increase communication between individuals and teams | |
| Quality Improvement—Develop and implement patient safety interventions | |
| Technology—Integrate health information systems and data management | |
| Medication—Implement effective systems to reduce medication errors | |
| Patients—Involve patients, families, and caregivers in patient safety | |
| Coordination—Maintain patient safety that spans the continuum of care | |
| Evaluation—Monitor effectiveness of the overall patient safety program | |
| Other: | |
| Patient safety IMPROVEMENT AREAS – Which areas would be most helpful to improve patient safety in your organization? | Check all that Apply (√) |
| Leadership engagement with patient safety initiatives | |
| Process design, implementation, and human factors improvement | |
| Evaluation of current compliance with National Patient Safety Goals | |
| Organizational culture change assessment and improvement | |
| Education and training in patient safety culture, improvement, and results | |
| Situation communications, teamwork training, and Team STEPPS | |
| Identification of patient safety risks and design of improvement interventions | |
| Evaluation of opportunities to integrate information systems and use data well | |
| Medication reconciliation strategies, and prevention of adverse drug events | |
| Patient and family education techniques and programs | |
| Coordination at time of transfer between care settings or providers | |
| Program assessment and evaluation methodology | |
| Other: | |

Please review it with your leadership team to discuss patient safety priorities and action areas.

Conclusion

Evidence and expert-based patient safety solutions

Currently, California hospitals are searching for cost-effective patient safety strategies. Many are implemented evidence- and expert-based patient safety solutions in the areas of:

Linking incident reporting with provider education and quality improvement. Incident reporting and continuous performance measurement have been successfully used in conjunction with collaborative learning and practitioner feedback to educate providers and organizations in patient safety culture and improvement.

Systems improvement and process redesign patient safety solutions. System-wide patient safety initiatives such as organizational design, process improvement, reminder systems, clinical pathways, and standing orders streamline processes, save money, and improve clinical outcomes.

Creating a patient safety culture. Hospitals are creating a culture in which healthcare providers feel responsible for the safety of every patient, every time. Hospitals are changing from a culture of blame to a culture of safety so that providers can report errors freely. Systems are changed, and staff are accountable for behavior choices.

Patient safety technology. Health

information technology - including computerized physician order entry, decision support systems, electronic health records, and bar code medication administration - improve the quality, safety, and efficiency of hospital care.

Provider's cross-cultural communication and patient activation.

Hospitals are investing in patient safety initiatives that focus on the development of provider's cultural competency including effective provider-provider and provider-patient cross-cultural communication to reduce medical errors. Such patient safety strategies are directed to create effective communications systems among providers, improve the accuracy of patient identification, increase language access, and promote patients' active involvement in their own care.

A growing national movement is raising the bar for patient safety. Patient safety organizations, accreditation agencies, and stakeholders are making a national call to work together to create an environment that fosters increased safety. Investing in patient safety solutions and aligning with stakeholders will bring strategic benefits to California hospitals promoting a unified message, common goals, and standardized measures.

The benefits of investing in patient safety initiatives are considerable.

The benefits of creating safer operating systems and processes that minimize the likelihood of errors and accidental injury are substantial: protect the bottom line, provide better patient care, improve patient satisfaction, increase

employee productivity, prepare for pay-for performance and public reporting, build goodwill and reputation, avoid exposure to litigation, maintain accreditation, and comply with legislation requirements.



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For author biographies see page 48.

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Biographies inadvertently omitted from November 2007 issue

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California Association of Healthcare Quality 2007 Author/Article Index

CAHQ expresses gratitude for those whom have contributed articles, press releases, reflections, book, conference and movie reviews over the past year.

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2007 First Quarter Journal



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