Building Quality in Health Care
The Official Journal of Methodist International and the International Hospital Federation
Editors-in-Chief: Thomas Knight, MD and Eric de Roodenbos, PhD

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Editorial

THOMAS KNIGHT, MD

If you have ever visited a spiritual adventure camp, such as Camp Kanakuk in southern Missouri, you may have encountered the “faith pole.” The faith pole is a 30-40 foot free standing telephone pole that has small pegs on the sides for climbing. When you participate in the activity, as a safety measure, you are strapped into a harness that is attached to a pulley system and “belayed” from the ground. You cannot feel the support of the harness as any tension on the rope would throw you off balance. The idea is to climb to the top of the pole, get both feet planted on the small circle at the top and stand up. You then jump to catch a trapeze set about 6 feet away. My daughter, Kimba, encountered the “faith pole” and used it as the subject of her college admissions essay. Here is a portion of that essay:

“...As I stand on top of the telephone pole waiting for reason to kick in, my heart pounds ferociously. I know that I am attached to a harness. When I jump, I will not be hurt. However, reason must have won a full paid vacation to Tahiti because it is certainly not with me. Maybe, I theorize, it is afraid of heights too.

'Come on Kimba, you can do it, just jump,' yell my cabin mates. Easy for them to say, their feet are planted safely on the ground. They continue to encourage me, but I no longer hear them. I am six years old again, playing on my brother's bunk bed with my best friend Ellen. As we leave, I decide I will exit the top bunk like my big brother. This proves to be a big mistake. Greg, my brother, is older and thus much taller than me. I suddenly find myself clinging to the side of the bed begging my poor helpless friend to aid me. Sweat pours down my face as I try desperately to hold on. My stubby little fingers slip and I fall to the floor in tears. The pain soon fades but the fear does not. The memory of the pain jolts me back to the present. My mind is racing. I should be able to see my cabin from here, but I do not look. Blinded by fear, I beg to come down.

"I can’t do this, please let me down. I hate heights. Please!!"

The experienced counselor refuses my frightened plea and tells me that jumping is the only way down. My body shakes like a sapling in a hurricane and the pole joins along. On the verge of tears, I close my eyes and desperately pray, ‘God, give me strength.’

My body stills.
My heart rate slows.
I jump.

We ask hospitalized patients to jump off of hundreds of faith poles every day. Put yourself in these patient scenarios:

**Scenario 1:** A nurse enters a room to administer an IV medication. In only a few seconds, the drug will reach your heart and in under a minute it will be completely disseminated in your body. Is it the right drug in the right dose for the right patient?

**Scenario 2:** You are a patient meeting your anesthesiologist for the first time just an hour before surgery. He introduces himself as a doctor and that’s all the “credentials” that are available for review. He will not only be administering powerful drugs and monitoring you while you are asleep but he is actually going to have to breathe for you. Is he well trained? Is he skilled? Is he awake and alert this morning with a clear head?

**Scenario 3:** You are admitted to a hospital with abdominal pain. A man in greens and a lab coat comes to your room that evening and tells you he’s a surgeon. He is holding an x-ray with a small white shadow. He says, “See that; that’s bad; we have go in tomorrow and take that out.” Is he right? How many times has he done this? Can you put your life in his hands?

Without our patient’s trust and willingness to jump off these faith poles, we are paralyzed. We cannot provide care effectively or efficiently. The past decade has seen a barrage of reports of medical mistakes and errors which have eroded this leap of faith. Quality, safety, transparency, and disclosure are all tools to restore this trust. At The Methodist Hospital System, we have created a set of underlying values that drive all our actions called...
ICARE

I (Integrity) C (Compassion) A (Accountability) R (Respect) E (Excellence)

We are currently in the process of linking safety behaviours to our underlying values:

ICARE for SAFETY
- Support team members.
- Account for your behaviours.
- Focus on the task or person at hand and avoid distractions.
- Eyes wide open by constantly observing the environment for safe practices.
- Talk to one another both vertically and horizontally.
- You are not alone.

Our message to patients must always be, “I see you, I know you are here; I will keep you safe.”
About the partners

The Methodist Hospital

The Methodist Hospital in Houston has a 90-year legacy of medical milestones that attracts patients from around the world. As a founding member of Texas Medical Center, Methodist is a major academic medical center that was home to famed heart surgeon Dr Michael E DeBakey. The Methodist Hospital is recognized by the American Nurses Credentialing Center with Magnet Designation in the areas of nursing administration, education, clinical practice, research and quality. Methodist was ranked by US News & World Report on its prestigious “Best Hospitals Honor Roll” for 2009 and is ranked No. 8 among Fortune Magazine’s 2009 “100 Best Companies to Work For”. Methodist was ranked by UHC. Methodist is also one of the nation’s most wired systems, according to the 2009 Most Wired Survey and Benchmarking Study.

Methodist International

Methodist International is a subsidiary of The Methodist Hospital, whose mission is to build health-care capacity through the transfer of best practices to the global community. As the global arm of one of America’s largest and most successful private hospitals, MI is uniquely positioned to mobilize the enormous value and expertise of this organization in a relevant and highly specific manner to benefit its clients.

Methodist International developed a health-care consulting and management division to give our international partners a single point of contact for all the services that go into creating a vibrant health-care organization, including advisory services, hospital management, education and affiliations.

Methodist International provides an insider’s understanding of the unique challenges of health care – an understanding developed through the real-world experience of one of America’s finest hospitals – The Methodist Hospital.

Primary Global Services:
- Patient care
- Professional education
- Advisory services
- Hospital management

The International Hospital Federation

The International Hospital Federation (IHF), founded in 1947, is an international Non Governmental Organisation, supported by members from over 100 countries. As the worldwide body for hospitals and health-care organisations it develops and maintains a spirit of cooperation and communication among them, with the primary goal of improving patient safety and of promoting health in underserved communities.

The IHF vision is to become a world leader in facilitating the exchange of knowledge and experience in health sector management. Through the dissemination of evidence-based information, IHF will help improve patient care quality around the globe.

IHF collects, collates, publishes and facilitates the exchange of information and ideas on best practices in hospital and health-care management. It assists in the creation of environments that support organizations in the promotion and delivery of health care. It fosters international partnerships that promote interaction among public and private hospitals and health-care organizations, the community and commercial entities.

The IHF vision will be promoted through events, publications, networking and projects in line with the mission and values of the IHF. These activities will prioritize information on the leadership and management of hospitals and health services. The focus will be on both developed and developing nations and the learning that can be achieved through dialogue between countries, organizations and individuals.

The IHF is driven by its founding ethos that it is the right of every human being irrespective of geographical, economic, ethnic or social condition to enjoy the best standard in quantity and quality of health and access to hospital and health-care services. By promoting this value, IHF is supporting the improvement of the health of society.

The provision of health and health care to all people recognizes and accepts current best practices in medical standards and patient care as well as the ethical behaviour and standards of integrity required to govern, lead and manage health care organizations.

The IHF strives to promote and protect the dignity, safety and welfare of patients.

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The French accreditation programme for health-care organizations: Benefits and risks of a mandatory approach

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NATIONAL AUTHORITY FOR HEALTH, FRANCE

Abstract

On the basis of the experience of the French national accreditation programme which is mandated by law, we discuss the advantages and risks of a mandatory versus a more traditional voluntary approach, an issue which is gaining in relevance in view of the increasing number of external evaluation programmes and of the increasing demand for accountability and transparency. Mandatory programmes have clear advantages in terms of equity, national coverage and coherence, and information to stakeholders. If care is taken to actively involve health-care professionals, it can be argued that a mandatory approach, that is more demanding on the accreditation organization in terms of measurement and reproducibility, is ultimately more mature.

The changing picture of accreditation

In the last two decades, there has been a progressively greater role for external evaluation in protecting the community and promoting quality improvement. Supporting this change in the regulatory landscape is the growing number of programmes in many countries and notably in Europe. The initial accreditation programmes in the USA (1917), Canada (1958) and Australia (1974) were founded by professional or hospital organizations to ensure and demonstrate the quality of care that they delivered. These programmes are voluntary. Many of the newer programmes were created in response to greater expectations of accountability and transparency, notably in response to the growing importance of government expenditure for health care. There is now a greater diversity of programmes and many are government supported. These are often mandatory or participation is strongly encouraged by financial incentives.

Mandatory participation has a number of advantages but raises important issues regarding, for example, the autonomy from the various stakeholders, notably from insurers or health authorities, professional autonomy and ownership, the obligation of accountability raising the issue of confidentiality linked to the publication of results, the links to regulation and resource allocation. The French accreditation programme was mandated by law in 1996 for all health-care organisations in France. It was the first national mandatory programme. There is thus an opportunity to review the issues related to this mandatory approach and to promote a debate regarding the precautions and measures that should be envisaged to limit the risks associated with a mandatory approach.

The French accreditation programme

In 1996, accreditation became mandatory for all health-care organizations with a stated objective of improvement in quality and safety of care. It mandated a cyclical peer review mechanism of evaluation of hospital-wide activities with a publication of the results as well as a governance structure that aimed to promote professional participation and ownership. The responsibility for the programme was given to a new agency, the Agence Nationale pour l’Accréditation et l’Evaluation en Santé (ANAES) whose missions were taken over in 2004 by the Haute Autorité de Santé (HAS). HAS controls all the steps of the process from standard setting to survey and to the final decision making. There is no automatic link of decisions to resource allocation and the HAS has no regulatory authority on the health-care organizations. Self-assessment and continuous involvement of health-care professionals throughout the cycle are major objectives of the process.

There has been a rapid uptake. All 2950 health-care organisations have been surveyed once and over 2000 a second time. The third cycle will begin in January 2010. There are on average 750 surveys per year. Currently about 730 surveyors are active each averaging 3 to 4 surveys per year (Table 1).

Over and above this rapid uptake, what are the main observations and conclusions that can be drawn today nearly 10 years after the first actual implementation of the
programme in late 1999:
- a wide acceptance of this external review process by professionals;
- increasing expectations from all stakeholders as they understand its potential for inducing better practices and the need to render the mobilization efforts and the work committed to self-assessment more useful;
- a rapid ratcheting in the level of requirements, notably on leadership, patient safety and patient involvement issues;
- an implementation of the recommendations resulting from the decision process as attested by targeted surveys and the second round of surveys;
- perceptions studies involving a large number of professionals undertaken by polling organizations under conditions of anonymity and rigorous sampling. The conclusions of a study realized by IPSOS in 2007 are reported in Table 2.

What are the benefits of such an approach?

External evaluation is but one of many strategies that promote quality and safety of care. In a complex health-care system where there are conflicting interests and important strains on resources, it is essential that strategies be integrated into a larger vision involving all actors addressing priorities identified nationally.

Transparency and accountability

For the public and their representatives, these are now absolute requirements. A mandatory programme supported by public resources and led by an organization with a public status must by definition make its results publicly known. Transparency, both within organizations between professionals and between professionals and their patients, is an essential element to promote change within the health-care system in terms of quality and safety. This will also lead to a pressure to focus on measurements and outcomes that will be greater than in a voluntary system. The French programme has integrated the use of performance indicators applicable to all acute health-care organizations.

A legislative approach sends the signal to all stakeholders that external evaluation and recognition is a national priority that justifies a high level of leadership and resources, both human and financial.
actively in the accreditation process or have achieved better results than others.

What are the risks and how can they be mitigated?

Loss of autonomy in standard setting and decision making

External evaluation consists of at least three fundamental steps: the definition of standards, a survey process and decision making. There are many examples where standards are defined by an organization different from the one that surveys. In national programmes that may well be the government or a public body who may or may not have associated the professionals fully in the process. Similarly, care must be taken to avoid all appearances that payers or public health authorities play a role in or influence decisions of the external evaluation process.

In our eyes, it is essential that all of these steps be under the control of the accrediting organization for at least two reasons: on the one hand, for credibility as, while profiting from the input of the different stakeholders, an autonomous body should not be perceived as beholden to anyone of them; on the other hand, for purposes of the programme’s evolution and reactivity resulting from the regular feedback of the various stakeholders on the standards, methods and decision rules and on the interaction between these different steps of the process. The more autonomous and objective the process the more its results will benefit all stakeholders.

Threats to professional autonomy and buy-in

Full professional participation is a prerequisite to a successful accreditation programme. And this is often difficult to achieve. Mandatory programmes are often felt to be top down and perceived as simply another requirement amongst many that health-care organizations must respond to. The objective of these programmes is to promote a climate and tools that will cause significant and sustained improvement in daily practices. This is entirely dependent on professional leadership and involvement.

In France, the government is very careful to keep an arm’s length relationship. The programme is structured in such a way that professional with the help of patient representatives have the leading role in governance and the setting of priorities, in the definition of standards, and in decision-making. Surveyors are peers who must be in active practice.

Minimal rather than optimal standards

A mandatory process tends to push towards minimal standards that are applicable to all and that can be assessed in a reproducible manner. While realizing that an external review process is a window limited in time and in scope that cannot guarantee quality and safety, the public and their representatives in government want to be assured that minimal standards are in place at time of survey and that the organizations have in place mechanisms that offer reasonable certainty that these practices are sustained.

On the other hand, optimal standards promote sustained buy-in from the majority of professionals from organizations and units within organizations that often differ very significantly in levels performance in terms of quality and safety of care. Minimal standards will also tend to shift the pendulum towards control and away from incentives to change.

Organizations that run mandatory programmes must be aware of these risks and be careful to insist on standards that are optimal. This may be achieved by having “stretching” standards while defining for each a minimal level that must be attained.

The consequences of decisions

In view of the public legitimacy of a national mandatory process, decisions will have more weight than in a voluntary procedure. Non-accreditation or conditional accreditation decisions will be more difficult to make. As an example of this, in France, in the first round of accreditation, where it was decided that there would be no “non-accreditation” decision.

A more formal process that does not react quickly to changes in the environment or to feedback

Professionals perceive the programme as excessively formal. The public mandatory nature of the programme may increase this perception and may make it difficult to adjust quickly. Particular attention must be paid to the consultation process of all interested stakeholders with the view to continuous responsiveness and development.

Loss of competitive advantage linked to accreditation status

As every organization in the country goes through the process, it becomes necessary to define levels of performance to distinguish and valorise those who do better.

The publication of the results and the link to regulation can give rise to perverse incentives

There are many examples in the literature of instances where the specification of goals or targets that are linked to financial incentives have led to unintended results that did not benefit and occasionally even were detrimental to the improvement of quality and safety of care by focusing excessively on certain issues or by inducing modifications in behaviour or reporting to better satisfy the target.

Discussion and conclusion

There are a growing number of external review programmes targeting health-care organizations with the objective of improving the quality and safety of care and of answering demands from the public and public authorities for more accountability. Of these, a growing number are government sponsored. Whereas the accreditation programmes were traditionally professionally led and voluntary, those that are supported by government are either mandatory or rewarded financially for participation.
The example of the French national accreditation programme was used to discuss the issues raised by a mandatory approach. What are the advantages and risks of a mandatory national programme? What should be done to prevent or mitigate those risks?

In this paper, we purposely chose to picture programmes as voluntary or mandatory. It is recognized, however, that many voluntary programmes by the extent of their national coverage face many of the issues that are linked here to a mandatory approach.

Mandatory programmes will have clear advantages in terms of uptake, equity, coverage, transparency. There are risks of loss of autonomy, of less professional buy-in, of favouring control over incentive to change by the use of minimal rather than optimal standards, of perverse effects due to the publication of results that may induce defensive behaviour in health-care organizations. If these risks can be controlled, it can be argued that a mandatory programme is a more mature process.

Charles Bruneau is a physician, trained in Canada, specialising in Internal Medicine and Rheumatology. He is presently scientific advisor to the Direction d'Ambilibrer de la Qualité et de la Sécurité des Soins at the Haute Autorité de Santé. He has been involved in the design and development of the accreditation programme for health-care organizations since 1997. He works specifically on the evolution of the accreditation process, in the development of strategies in relation to patient safety, on the measurement of impact and on the integration of indicators.

He has participated in European and international activities, notably in the Simpatie project and as a national coordinator for the Marquis project. He is one of the two scientific coordinators for the EUNetPaS project on Patient Safety involving the 27 member states of the European Union.

He is a member of the Board of the International Society for Quality in Health Care (ISQua) and of the Council of the International Accreditation Program of ISQua.

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Various fall risk assessment instruments have been described in the literature over the past 25 years; however, it is unknown how many were systematically designed and evaluated psychometrically for reliability and validity. Additionally, it is unknown if these instruments are applicable to all of the hospitalized patient population. Fall prevention has been identified as a public health problem in various countries and across different hospital settings. Currently nursing staffs spend mammoth amount of time providing 1:1 monitoring of at risk patients; this creates a burden to provide an adequate nurse patient ratio. In the United States, the Center of Disease Control and Prevention (CDC) has funded studies to evaluate risk factors for falls and interventions to prevent falls. As part of the 2008 National Patient Safety Goals, The Joint Commission created a national agenda which requires acute care facilities to implement a fall reduction program including an evaluation of the effectiveness of the programme, as well as to reduce the risk of patient harm resulting from falls. This includes identifying risks related to each patient’s medication regimen and taking action to address any identified risks.

The aim of this review is to examine and critique existing fall assessment tools to allow clinicians to make more informed choices regarding which tools have the highest predictability for falls; it is important to note that some published tools do not report sensitivity and specificity. An important component of inpatient fall prevention programmes is to target interventions to high-risk patients. Therefore, it is essential from clinicians to assess and identify patients who are high risk for falls and apply fall prevention interventions to improve their safety.

Search methods
A literature search was conducted using computerized databases Ovid, PsychINFO, JSTOR, MEDLINE, Library of Congress, and EBSCO host.References in recently published studies were reviewed. A manual search was also conducted of nursing and medical journals, and textbooks. The medical subject heading (MeSH) terms fall prevention, fall assessment tool/instrument, prevention, risk factors, falls in hospitals, acute care and falls were used for all databases.

The search yielded more than 80 articles published from 1996 through 2005 that described fall risk assessment tools in the acute care setting. Of the 20 tools that were reviewed, nine tools were chosen if they fit the inclusion criteria for assessment of patient falls in hospitals. Tools which were developed only for assessment of fall prevention in older people dwelling in the community were excluded from this review. Intrinsic and extrinsic characteristics of falls among older community dwellers do not apply to inpatients, whose recovery from acute illness is commonly associated with changes in mobility (Oliver et al., 2004).

Findings
Classification scheme of inpatient falls
A fall is defined as an event in which the patient comes to rest on the floor. This definition includes situations in which patients fall to the floor while walking or trying to get up from a chair or bed, or those situations in which patients are found lying on the floor. Assisted falls are those in which a bystander, such as a nurse, is present near the falling patient and lowers the patient to the floor. Morse developed a conceptual classification definition to identify the types of patient falls. The three categories are:

Accidental falls are those that occur when patients fall unintentionally (trip, slip, or fall because of failure of equipment). In previous work, Morse identified that 1-4% of all falls are accidental. Patients who experience this type of fall cannot be identified on a predictive instrument as being at risk of falling.

Unanticipated physiologic falls occur when the
physical causes of the falls are not reflected in the patients’ risk factors for falls. A fall in this category is triggered by physical conditions that cannot be predicted until the patient falls. For example, the patient may fall due to fainting, seizure, or a pathologic fracture of the hip. This category of fall constitutes 8% of all falls in hospitals.

Anticipated physiologic falls occur in patients whose score on a fall indicator indicates that they are at risk of falling. Frequently these patients have risk factors such as a history of a prior fall, weak gait, use of a walking aid, and impaired mental status. These patients are expected to fall. According to Morse (1997), even if the actual catalyst for the fall is that a patient with an

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**Table 1: Nine inpatient fall risk assessment instruments**

<table>
<thead>
<tr>
<th>Author年代</th>
<th>Tool Study design</th>
<th>Inpatient setting</th>
<th>Sample size</th>
<th>Number of items on tools</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>Study findings</th>
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<tr>
<td>Olsson et al. (2005)</td>
<td>Fall risk index in inpatient stroke rehab</td>
<td>Cross validation &amp; prospective validation in rehabilitation</td>
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<td>8</td>
<td>Not reported</td>
<td>Not reported</td>
<td>Fall risk index could not be considered sufficiently accurate</td>
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</table>
| Anticipated physiologic falls occur in patients whose score on a fall instrument indicates that they are at risk of falling. Currently these patients have risk factors such as a history of a prior fall, weak gait, use of a walking aid, and impaired mental status. These patients are expected to fall. According to Morse (1997), even if the actual catalyst for the fall is that a patient with an

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**Table 2: Fall risk assessment instruments: Contributing risk factors**

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<thead>
<tr>
<th>Risk assessment tool</th>
<th>Age</th>
<th>Sex</th>
<th>Secondary diagnosis</th>
<th>Meds</th>
<th>Agitation</th>
<th>Depression</th>
<th>Sensory impairment</th>
<th>Dizziness</th>
<th>Mental status</th>
<th>Altered elimination</th>
<th>Gait/transfer</th>
<th>History of fall</th>
<th>Get-up &amp; go test</th>
<th>Ambulatory aid</th>
<th>Patient care equipment*</th>
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<td>Stroke rehab</td>
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<td>Morse Fall Scale</td>
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*Sensitivity is the degree to which the patients who are identified as high risk actually fall. Specificity is the degree to which the patients who are not at high risk did not fall.

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**Special Feature: Risk of Falls**

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Impaired gait tripped, because of the known risk of impaired gait, it is expected that the patient will trip. Anticipated physiologic falls constitute approximately 78% of all falls in the hospital population.

**Intrinsic and extrinsic risk factors**

Fall risk factors may be categorized as intrinsic or extrinsic. Intrinsic risk factors or patient-related factors include advanced age, chronic illness, muscle weakness, gait disorder, alteration in mental status, and use of medications. Extrinsic risk factors are categorized as environmental hazards or hazardous activities. Within inpatient facilities, commonly reported extrinsic factors are bedrails, low or unstable seating (e.g., low toilets, wheelchair braking impediments), inadequate light, slippery or rough surface, portable commodes, and mobility aids such as walkers. Extrinsic factors are associated with approximately half of all falls. Additionally, the risk of falls is often compounded by behavioural risk factors. The patient is hurried or inattentive, experience difficulty or discomfort during a task, or move beyond limits of stability. The most frequent locations for inpatient falls are in the patient's room or bathroom. In postfall assessment, those patients had a history of problems with ambulation or transfer.

**Gap in nursing science**

Even with the many fall risk assessment tools available for assessing intrinsic and extrinsic factors and behavioural limitations, clinicians typically lack knowledge of existing scales and how to choose a scale appropriate to their patient population. Individual hospitals frequently develop their own fall risk assessment instrument based on a literature review and/or retrospective chart reviews of their own patient falls. These self-devised instruments often lack psychometric standardization such as sensitivity, specificity, and validity.

When making a decision on which fall risk assessment instrument to use, health-care providers must consider those whose derivation, weight, reliability, and validation are based on research. Evidence-based research should be used as criteria for determining which instruments were developed using rigorous research methodology as well as tested and evaluated. Instruments must be validated prospectively, using sensitivity and specificity analysis, in more than one population, and demonstrate validity, reliability, feasibility, and adherence from staff, as well as transparent simple calculation of scores. Sensitivity of an instrument can be defined as the accuracy or the ability of an instrument to identify a phenomenon. An instrument’s sensitivity is presented as a percentage or rate of yielding true positives. For this review, sensitivity refers to the degree in which patients that are identified as high risk falls actually fall. Specificity, also presented as a percentage or rate, can be defined as ability to identify or screen out those cases that are true negatives and do not have the condition or risk factors. For this review, sensitivity refers to the degree in which patients who are not at high risk of falling do not fall.

**Fall risk assessment instruments: inpatient setting**

This review provides the psychometric evaluation of eight fall assessment instruments, which were developed in various inpatient hospital settings in the United States, England, and Sweden. During the literature search, the Morse fall assessment instrument was one of the most referenced and accepted instrument by the nursing community in the past 25 years. However, during the last decade, hospitals have started to develop their own fall assessment instruments. This practice is not recommended unless psychometric instrumentation development research is conducted to ensure the validity and reliability of the instrument. Designs of the studies for this review were retrospective or prospective and taken from their descriptions published in nursing and medical journals. Table 1 summarizes the characteristics of the tools, including study design, setting, and sample size, and number of items in each scale, sensitivity, specificity, and findings.

**Fall risk index in stroke rehabilitation**

A study was conducted to validate the accuracy of this stroke fall risk index. The sample consisted of 158 patients admitted to a specialized geriatric stroke rehabilitation unit at a university hospital in Sweden. The scale was scored for each participant, and the relationship between the score and falls were assessed. The instrument was later remodeled and cross-validated in the sample from which it was developed. The patient factors for the index are sex, Katz Activities of Daily Living Index (ADL) score A-D or E, urinary incontinence, postural stability score, signs of motor impairment, signs of visuospatial hemi-neglect, bilateral brain lesions, and use of diuretics, antidepressants, or sedatives.

The index value of 0 to 4 indicates a minor fall risk; 5 to 7 intermediate risk; and 8 to 11, high risk. The total index score (0-11) was significantly associated with the time of the first fall as evidenced by the hazard ratio, 1.22. The classification of participants into groups with low, medium, and high risk of falling did not correlate with the time of the first fall. A remodeled scale containing three of the separate original variables had a hazard ratio of 1.82. The fall risk index showed some correlation with fall risk among patients in stroke rehabilitation; however, the tool needs to be modified to show greater accuracy.

**Scott & White Falls Risk Screener**

A retrospective case-control sample was drawn from all adults hospitalized on medical-surgical units of a tertiary care facility in central Texas during the first six months of 2001. The study included 354 hospitalized patients: 118 patients who fell and 236 controls. Bivariate, multivariate, and regression analysis resulted in a six variable model, which was later decreased to 4 variables: (a) history of fall, (b) ambulation assistance, (c) disorientation, and (d) bowel control problems. The authors created a fall risk model with 70% sensitivity (high-risk patients who were correctly identified) and 95% specificity (patients not at high risk of falling were correctly identified). The findings...
of the study also revealed that patients who fall in the hospital are significantly older, are more likely to have had previous falls, problems with bowel control, cognitive impairment, and balance problems, and are more likely to need assistance with toileting and an assistive device for locomotion.8

**Hendrick II Fall Risk Model**

The Hendrick II Fall Risk Model used data drawn from a 756-bed acute care hospital in the United States over a 2-year period.9 The sample for the study was 1,135 patients, including 355 fall cases and 780 patients who were randomly enrolled and assessed for more than 600 risk factors (extrinsic and intrinsic). Only variables that could be related to anticipated physiologic falls were included. All patient variables at the time of assessment were derived mostly from standardized, validated instruments (Depression Rating Scale, Mini-Mental State Examination, Katz ADL Index, Tinetti’s Performance-Orientated Assessment, the 60-cm Get-Up and Go Test, Quantitative Test of Average Functional Reach, and Bender Elimination Test, and the Koeing II test was used to screen for depression). The best fitting model included chi square statistics as well as sensitivity and specificity values retrospectively. This tool has a sensitivity of 74.9%, with a specificity of 73.9%.

The eight assessment parameters of this instrument are:
- confusion/disorientation;
- depression;
- altered elimination;
- dizziness/vertigo;
- gender;
- any prescription antiepileptic;
- any prescription benzodiazepine, and
- Get-Up and Go Test, which consists of the assessment and scoring of the patient’s ability to rise in a single movement, pushes up successfully in one attempt or multiple attempts, and unable to rise without assistance.

Statistically, the most important risk factor in the model is confusion/disorientation, with these patients being seven times more likely to fall than a patient who tested negative for this risk factor. Confusion can contribute to a patient being unaware of limitations in his or her abilities or being less likely to call for assistance when trying to ambulate or transfer.7

**Conley Scale**

The Conley Scale was developed after an extensive review of the literature to identify statistically significant predictors of falls. A prospective nine-month study was conducted in a 606-bed tertiary care hospital. A 42-bed medical-surgical unit that had a high fall rate was selected for the study. Fifty-nine of the 1168 patients who had the fall risk assessment scale completed upon admission fell during their hospitalization. The initial scale of 13 risk factors was modified after analysis to include the following variables:
- history of falls in the last three months;
- impaired judgment/lack of safety awareness;
- agitation;
- impaired gait, shuffle, wide base, unsteady walk;
- “Do you ever experience dizziness or vertigo?” and
- “Do you ever wet or soil yourself on your way to the bathroom?”

Scores of 2 or greater or a fall during hospitalization made the patient eligible for placement in the fall prevention programme. The Conley Scale demonstrates acceptable reliability and validity, sensitivity of 71%, and specificity of 70%.8

**STRAF**

A prospective case-control study was conducted in a sample of 1,164 patients hospitalized in several rehabilitation and acute care units in England.9 The initial instrument had 21 clinical characteristics, which included the abbreviated mental test score, modified Barthel index, a transfer and mobility index, and several nursing judgments. After extensive statistical testing the variables were later reduced to the following five:
- history of falling;
- agitation;
- need for frequent toileting;
- transfer and mobility score; and
- visually impaired.

A risk assessment score (0-5) was derived by scoring one point for each of the five factors. A risk assessment score greater than two was used to identify high risk. These variables showed high sensitivity 92% and 68% specificity in predicting falls when tested in two elderly care units.10

**Fall Risk Assessment Tool (FRAT)**

The FRAT instrument identified 89 patients on a medical-surgical unit who fell over a six-month period by reviewing the incident reports completed during that time.11 A randomized sample was obtained from the medical records of patients who did not fall during the same time period. There were 5.3 falls per 1000 patient days in the six months preceding the use of the FRAT. There were 4.56 falls per 1000 patient days in the six months after the use of the scale. The sensitivity of the tool is 43% and the specificity is 79%.

The variables in the tool are age, mental status and agitation, elimination, history of falling within six months, sensory impairment, activity, and medications. A Chi square test performed on risk status by group was not statistically significant. Total scores for each of the seven risk factors were calculated for each group. In both groups, the factors of agitation and sensory impairment had very low scores, which indicated that they did not contribute to the validity of the fall risk score. It was the judgment of the research team that with a score of 10 or higher, patients were considered at high risk of falling. History of falls was statistically significant. Age, confusion, elimination, and history of falls were significant in
combination. The combination of age, confusion, and elimination was not significant without history of falls. Neither age nor confusion nor elimination was significant between groups.17

Reassessment Is Safe "Kare" (RISK) A 26-item risk assessment tool (RAT) was developed after a literature review and analysis of falls over a three-month period.18 The study was conducted at a 1110-bed Veterans Affairs Medical Center, a medical-surgical, psychiatric, and extended care facility in Texas. A total of 899 RATs were completed; 78 of the 899 assessments were for patients who fell during the study period. A Pearson correlation analysis showed only four variables were statistically related to patient fall. It thus provided a rationale for reducing the tool to the following variables:

- unsteady gait/dizziness/imbalance;
- impaired memory or judgment;
- weakness; and
- history of fall.

Patients who were categorized as high risk based on the variables were at even higher risk of falling if they also used a wheelchair. Statistics regarding the sensitivity and specificity of the instrument was not provided.12

Morse Fall Scale The development research for the Morse Fall Scale was conducted at a 1200-bed urban hospital, which included three clinical units.19 The methodology for establishing the Morse scale was:

- developing a prospective database from 100 patients who fell and 100 randomly selected patients who had not fallen;
- identifying the significant variables that differentiated the patients who fell from those in the other group;
- obtaining scale weights for each item;
- using the weights for the statistically significant variables to calculate item values and to determine the score that classifies patients at risk of falling;
- computer testing the scale on a simulated patient population;
- estimating the reliability; and
- establishing validity by randomly splitting the data set and repeating steps b through d on one half of the data, using discriminate analysis.13

Sensitivity of the scale was 78% and a positive predictive value of 10.3%; conversely, specificity was 83% with a negative predictive value of 9.8% regardless of length of hospitalization.

The six variables in this model are:

- history of falling;
- secondary diagnosis;
- ambulatory aid such as bed rest/nurse assistant, crutches/cane/walker/furniture;
- intravenous therapy/heparin lock;
- gait assessment; and
- orientation/mental status. A prospective study in three clinical arenas demonstrated that the scale is sensitive to different patient conditions regardless of length of hospitalization.

Discussion
Among all the risk assessment tools reviewed, the following intrinsic, or patient-related, risk factors emerged: history of falls, secondary diagnosis, use of ambulatory aid, use of patient care equipment, gait, mobility, altered elimination, transfer, alteration in mental status, gender, age, medications, depression, dizziness or vertigo, agitation, and sensory impairment. History of falls, cognitive impairment/psychological status, altered elimination, and impaired gait emerged as the top four variables on the reviewed fall risk assessment tools (Table 2). Other case-control and cohort studies have shown that the most common risk factors for inpatient falls are impaired mental status, special toileting needs, impaired mobility, history of falling, psychotropic medication, and advanced age.20

After this extensive distillation of the literature, the recommended tool is STRATIFY since it has the highest sensitivity of 55% and specificity of 68%.22 Several of the tools are long and complex, and a tool such as the Morse scale does not reflect risk factors identified in the current high-acuity inpatient population. For example, older adult inpatients have intravenous access, a secondary diagnosis, and immobility requiring the use of gait assistance. When screened with this tool, too many patients become inclusive.

Conclusions
In 2030 it is estimated that the older adult population will rise dramatically as the Baby Boom generation (those born between 1946 and 1964) ages. The impact of this growth will create a major burden for the health-care industry; therefore, it will be imperative that the industry advance in providing cost-effective, high-quality care to this aging aggregate who are at the highest risk of falling. With this predicted growth in the older population, the clinical phenomenon of falls can no longer remain an elusive quandary for the health care team. The results of this study can be used to guide nursing staff in selecting a fall risk assessment tool for use in the inpatient setting with high sensitivity and specificity.

History of falls, cognitive impairment/psychological status, altered elimination, and impaired gait emerged as the top four variables on the reviewed fall risk assessment tools.

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Father Reading


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Honduras Medical Center (HMC) nursing fair

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Abstract

The Methodist International (MI) and Honduras Medical Center (HMC) joined forces to collaborate for the primary goal of improving quality of patient care through the provision of education and training in Honduras. The strategy selected was the implementation of nursing education via a competency nursing fair and funded by Moody Memorial Methodist Church.

After thorough review, it was agreed that HMC lacked competency assessment of their nursing staff. In partnership with HMC, MI elected to target the competency of nursing staff through a competency skills fair. Competencies can differ between institutions, and their development and implementation requires a team effort between educator, manager, preceptor and staff nurse. An initial needs assessment was conducted in April 2007 identifying the primary skills needed for nursing at HMC. The results of that assessment suggested that there were three primary categories on which to focus. Those main categories fell under the umbrella of emergency responsiveness (CPR/Code Blue), infection control (hand washing, central line dressing change, Foley insertion, NG tube insertion) and patient safety (medication administration).

Methods

MI in conjunction with HMC worked on implementing a nursing competency fair for four days. In addition, an open invitation was extended to nursing staff from the surrounding community hospitals. Arcand and Neumann reported in 2006 that quality care is measured in part by nursing competence. The training covered a comprehensive inventory of nursing skills that are critical in improving the quality of patient care. The day long event had morning presentations covering selected topics such as Code Blue, patient safety, infection control, communication and hand-offs. The nursing instructors, who were a combination of MI and HMC nurses, also demonstrated the appropriate steps for each competency. The afternoon session provided nurses with an opportunity to return demonstrate the identified skills which were set up in a different room at various stations for check-offs. The skills covered in this fair included central line dressing change, Foley catheter insertion, hand washing, intravenous (IV) insertion and no recapping of needles, nasogastric tube insertion, medication administration and cardiopulmonary resuscitation (CPR).

Results/outcomes

MI conducted two subsequent competency fairs to nursing staff from the Tegucigalpa and Las Limas areas in July and October of 2007. There were 123 trainees who attended the July training from six public and three private...
hospitals, and a nursing school. The October training was attended by 194 nursing staff that came from 11 public and six private hospitals.

Data collection improved as test results showed best questions to use and best processes. The original skills wish list that was given to us for educational purposes was created by the nursing directors and came from direct observation of their staff and assessment. Prior to the fair, the need for those skills was verified with a baseline skills assessment conducted by the nursing directors of each unit to all of their licensed staff nurses. The graph below highlights the results of assessment before the skills fair was conducted for licensed nursing staff as well as an assessment of their skills 3–6 months after attending the competency fair. The graph illustrates specific areas most improved per each skill.

Pre-test and post-test examinations were conducted immediately before and after the competency fair to measure skills and knowledge gained, as well as assess effectiveness of the training. The results of the exams have shown remarkable improvement in the knowledge and skills of the participants in all areas tested.

The above graphs display results of the pre-test and post-test examinations administered immediately before and after the competency fairs in July and October 2007. The first graph shows modest changes attributable to the training. Some changes were made both in the content as well as the pre-test and post-test exam in order to improve training effectiveness. The second graph clearly demonstrates that the trainees have significantly improved in their knowledge and skills, which is critical to improving the quality of patient care in Honduras. The feedback received from the first evaluation was instrumental for improving the training in all areas. A great majority of the trainees rated the programme as excellent in all areas and wanted the programme to continue. Nurses commented on how valuable the information they received, not only for the care given at HMC but also the care given at other hospitals at which they are employed.

The post-test examination was again administered to the nursing staff of HMC post six months after the initial conference training in July. The results suggest that retention of the education learned during the competency nursing fair was 65% for the auxiliary staff and 74% for the licensed nursing staff. Post examination questions determined that 65% of the nursing staff worked in the public hospital in addition to the private hospital and of that group 95% stated these skills improved their work in the public sector.

Discussion and Conclusions
The fair helped raise the awareness of the Honduran community to the fact that nurses make a significant impact on the safety and welfare of patients both in the private and public sector. Honduran nurse colleagues embraced the occasion to learn and requested more opportunities for continuing education. The doctors responded positively as well. The nursing colleagues from the United States gained an appreciation of cultural differences in planning and implementing the skills fairs.

Post examination questions determined that 65% of the nursing staff worked in the public hospital in addition to the private hospital and of that group 97% stated these skills improved their work in the public sector.

References
Since the Institute of Medicine’s landmark reports, To Err Is Human (2000) and Crossing the Quality Chasm (2001), revealed widespread incidence of medical errors in US hospitals, there has been a great deal of effort to measure and improve the quality of hospital care. Much progress has been made in developing quality indicators and risk-adjustment mechanisms to compare quality across institutions, and in examining practices and cultures in high-performing hospitals. Little is known, however, about the dynamics of hospital performance: the degree to which hospitals are improving (or deteriorating) over time, and how they achieve and sustain that improvement. This study examines such trends and change strategies. It combines quantitative analysis of quality and efficiency trends, using three hospital databases, with case study analysis of four hospitals that experienced significant improvement in a composite quality indicator based on risk-adjusted mortality, complication, and morbidity rates.

The quantitative analysis, led by Eugene Kroch and Michael Duan of CareScience, Inc., and described in the companion report, Hospital Performance Improvement: Trends in Quality and Efficiency, presents results of a quantitative examination of the degree to which hospitals are improving (or deteriorating) in quality and efficiency over time. Trends in Quality and Efficiency, found significant improvements in mortality rates, likely indicating that hospitals have been getting better at keeping people alive through error reduction, improved technologies, adherence to evidence-based protocols, and other strategies. The improved mortality scores may also be attributed in part to more conscientious coding of medical errors.
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<th>Organization/setting</th>
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<tr>
<td>Beth Israel Medical Center; New York, NY</td>
<td>Series of publicized cases re: tragic medical errors and poor judgment</td>
<td>Creation of board-level commission; additional staff and responsibilities for Quality Improvement (QI) dept., VP position overseeing QI; replacement of two physician chairs; new division chief of quality position established in dept. of medicine; QI “champion”; Critical Care Coordination Committee established; focus on new JCAHO Core Measures; patient care redesign; more training for aids; multidisciplinary leadership teams; best practices group established</td>
<td>Clinical guidelines and “care maps” for heart failure, acute myocardial infarction (AMI), and pneumonia (JCAHO Core Measures), stroke protocols; new policies re: bringing equipment into operating rooms; new complaint system with anonymous hotline; zero tolerance for bad behavior; departmental quality plans with specific goals; sharing of best practices among health system hospitals; continuous quality improvement (CQI) training of staff</td>
<td>Reduced deep vein thrombosis (DVT); reduced infections and complications; reduced patient mortality rates; improvement in JCAHO Core Measures; reduced readmissions, lengths of stay; overall QI/Ob/Gyn programme</td>
</tr>
<tr>
<td>Legacy Good Samaritan Hospital; Portland, Ore.</td>
<td>Recognition of increases in lengths of stay and readmissions for some conditions; new awareness of hospitalist model; multidisciplinary care strategies</td>
<td>Establishment of hospitalist and intensivist services; multidisciplinary patient care; revamping of Critical Care Committee to address development of new care protocols; using Good Samaritan as a testing site before implementing strategies across the Legacy Health System; standardized process for implementing new protocols; design, implement, evaluate, broad roll-out</td>
<td>Preprinted orders for heart failure, AMI, and pneumonia; automated pharmacy orders; empowerment of bedside nurses; new protocols for hypoglycemia, infection, etc. based on JCAHO Core Measures; implementation of new technologies for medication dispensing, paperless hospital</td>
<td>Dramatic decrease in pneumonia and blood stream infections; subsequent cost savings; decreased lengths of stay and/or mortality for some populations; cost per hospitalization decreased under hospitalist service</td>
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<td>Rankin Medical Center; Brandon, Miss.</td>
<td>New CEO with strong commitment to QI; acquisition by for-profit health system; GM report on medical errors</td>
<td>Additional staff for QI department, with expertise in evidence-based medicine; sharing of best practices with other hospitals in health system, and in region/state through state QIO; open door policy by CEO (facilitates activity of Quality Steering Council); performance improvement teams; acquisition of new imaging and diagnostic equipment; physical plant improvements</td>
<td>Development of clinical pathways; improved educational materials for patients; reader-friendly guide for reducing risk of falls; education to clinical staff on safety measures, error reduction, infection prevention; testing of alternatives to patient restraints; software for e-mail medication orders</td>
<td>Reduction in medication errors re: transcription of orders; reduction in falls; reduction in use of patient restraints</td>
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<td>St Mary’s Health Care System, Athens, Ga.</td>
<td>New CEO with strong commitment to QI and health information technology; loss of staff and market share due to outdated practices</td>
<td>Establishment of Patient Safety Committee and Quality Council; empowerment of bedside nurses; expansion of hospitalist service; implementation new protocols based on JCAHO Core Measures; “One call” programme by nurses for support; creation of a JCAHO-certified stroke programme and center; certified neurosurgery center, and new family care center; DRC (diagnosis-related group) assurance program to improve coding; automated pharmacy dispensing</td>
<td>Continuous QI improvement (CQI) training of staff</td>
<td>20% increase in admissions between 2004 and 2005; significant increases in patient satisfaction ratings; scored 99.6% on Georgia Hospital Association quality and accountability index</td>
</tr>
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What it takes to be a “top improver” in quality: Case study analysis summary

Based on interviews with key informants at four hospitals that were among the top improvers (displaying significant, steady improvement in the composite quality measure from 2002–2004), we found a common temporal and ultimately cyclical sequence of factors resulting in change (Figure 1):

- **A trigger** serving as a “wake-up call” that prompts the hospital to begin or renew an emphasis on quality improvement, marking the beginning of cultural shift and leading to...
- **Organizational and structural changes** such as establishment of quality-related councils and committees, empowerment of nurses and other staff, and investments in new technology and infrastructure that facilitate...
- **A new problem-solving process**, involving a standardized, systematic, multidisciplinary team approach to identify and study a problem area, conduct root cause analysis, develop action plans, and hold team leaders accountable, resulting in establishment of...
- **New protocols and practices**, including evidence-based policies and procedures, clinical pathways and guidelines, error-reducing software, and patient flow management techniques, leading to...
- **Improved outcomes** in process and health-related measures (e.g., patient flow errors, complications, mortality), satisfaction and work environment, and “bottom line” indicators such as reduced length of stay and increased market share. Experiencing such positive results then serves as motivation to hospital staff to expand their efforts, thus turning the above sequence into a self-sustaining cycle. That is, the improved outcomes led to further impetus to change, accelerated change, and a spreading of the “change culture” to other parts of the institution. This entire sequence reflects the establishment, growth, and reinforcement of a culture of quality.

“Trigger” situations or events

All four hospitals cited negative or positive trigger events that motivated a new emphasis on quality, including:

- a series of medical errors with tragic results, which were reported in the media;
- arrival of a new CEO with a strong interest in patient service and quality;
- noticeable increases in length of stay and readmissions for certain conditions;
- significant loss in market share for certain services that led to dissatisfaction among staff and patients;
- new evidence and awareness of the potential for hospitalists and intensivists to promote multidisciplinary care, based on a growing body of literature indicating their ability to coordinate care, leading to improved outcomes; and
- the Institute of Medicine report, *To Err Is Human*, that provided clear evidence of widespread medical errors in hospitals nationwide.

A few hospitals mentioned that changes to payment (e.g., pay-for-performance incentives, reimbursement adjustments) as well as assistance from quality improvement organizations (QIOs) served as incentives to improve quality in the period after study (2002–2004). Such factors could potentially act as triggers for hospitals in the future.

Organizational and structural changes

After the trigger events, the hospitals made organizational changes that both reflected and nurtured a “culture of quality.” They also created structures and processes to monitor performance, identify deficiencies, and devise, test, and implement solutions. The organizational changes included:

- creating or reenergizing councils, committees, or commissions responsible for monitoring and ensuring success of quality improvement efforts;
- elevating the role of the quality improvement and performance departments and providing them with sufficient resources (including increasing budgets for quality activities beyond one-time capital expenditures);
- institution policies that encouraged staff to express concerns, identify deficiencies, and challenge the status quo such as nurse empowerment programmes (along with granting nurses greater autonomy), anonymous reporting systems, CEO “open door” policies, and staff-wide open discussions on topics of concern;
- creating multidisciplinary teams to provide patient care and/or address deficiencies made up of staff who can best devise, test, and implement solutions and are held accountable for success;
- establishing or expanding hospitalist and intensivist programs to improve care coordination and access to physician services for inpatients;
- nurturing physician and nurse champions to take the lead in developing protocols to address deficiencies and to encourage and educate their peers on new practices and procedures;
- using public performance reports as opportunities to identify deficiencies and improve care, health outcomes, and patient satisfaction (the Joint Commission on Accreditation of Healthcare Organizations’ Core Measures were uniformly deemed extremely valuable);
- reporting to Boards of Directors and parent health systems that closely monitor and set quality-related goals; and
- acquiring executives who communicate a culture of quality through personal example, supportive policies, and investment of resources (e.g., state-of-the-art diagnostic equipment, health information technology, and quality improvement staff).

Protocol and practice changes

As structural and organizational changes established...
standardized, systematic processes for problem-solving, hospitals were able to test and implement major practice changes. Examples include:

- clinical guidelines, protocols, or “care maps” for specific conditions or procedures;
- department-specific quality plans, with short- and long-term goals;
- improved educational and training materials for clinical staff on error reduction, hand-washing, and infection prevention;
- strategies for reducing need for patient restraints;
- educational materials for patients regarding fall prevention; and
- information technology that reduced medication errors and improved data collection.

**Improved outcomes**

The practice changes appear to have resulted in improved outcomes for patients and the institutions themselves. In addition to major improvements in the combination quality measure (based on mortality, morbidity, and complication rates), interviewees cited the following examples of improvements:

- process/operations: faster receipt of test results, faster patient flow, easier and more efficient data sharing and recording, fewer medication errors;
- health-related: reductions in mortality, blood infections, pneumonia, complications, readmissions, patient falls, and use of or need for restraints;
- work environment and reputation: increases in patient satisfaction and staff satisfaction/morale, improved status in community, greater ability to attract quality staff and physicians; and
- bottom line: decreased costs per hospitalization and length of stay for certain conditions and increased admissions and/or market share.

These positive outcomes motivated staff and hospital leaders to strengthen their efforts and in this way reinforced the quality improvement process.

**Challenges and lessons learned**

Change does not happen easily as these hospitals learned. Further, the amount of time after changes were made before meaningful results were seen varied considerably within each of the hospitals, depending on the nature of the change and the rate of acceptance and adoption by staff. The hospitals studied struggled with:

- resistance to change in culture and specific protocols from physicians and nurses;
- limited resources available to make or maintain quality-related investments; and
- complacency with past improvements.

Lessons from the four hospitals’ experiences that could assist other hospitals trying to establish a culture of quality include the following:

- set short-term, attainable goals and celebrate successes (and the individuals involved) in reaching them;
- keep the staff involved in problem identification and problem-solving, valuing everyone’s experiences and encouraging as well as expecting all to participate;
- nurture dedicated leaders and champions who encourage and “bring along” their peers;
- be patient but unrelenting, recognizing that change takes time and continuing to keep quality improvement “on the front burner”;
- balance quality and financial goals, considering investments in quality improvement from a short- and long-term perspective.

**How can public policy help?**

Representatives of the four hospitals suggested the following potential roles for public policy in facilitating quality improvement efforts:

- standardize reporting requirements;
- ensure accuracy and clarity of public reporting;
- educate consumers in interpreting information and using it appropriately;
- support pay-for-performance (P4P) programmes that use “carrots” (rewards) rather than “sticks” (penalties);
- offer incentives such as tax credits to providers who participate in P4P programmes; and
- continue to document and publicize quality issues.

**Acknowledgements**

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Ashish Jha is an assistant professor of health policy at the Harvard School of Public Health, assistant professor of medicine at Harvard Medical School, and staff physician at Boston VA Healthcare System and Brigham and Women’s Hospital. Dr. Jha received his MD from Harvard Medical School in 1997 and trained in Internal Medicine at the University of California, San Francisco, where he also served as chief resident. He completed his General Medicine fellowship training at Brigham and Women’s Hospital and received his MPH training in Clinical Effectiveness from Harvard School of Public Health. Dr. Jha’s main professional interests are in quality of care, disparities in care, and the impact of information technology in these areas. He has worked in areas evaluating IT solutions for reducing medication errors and improving quality and the role of public reporting on quality of care and impact on providers. His two most recent projects focused on national and regional trends in racial disparities to better understand the effectiveness of national and local policies to eliminate gaps in care and an evaluation of the new hospital quality reporting initiative known as the Hospital Quality Alliance. His ongoing work includes a study of hospital organizations that care for a disproportionate number of minorities, as well as IT adoption among Massachusetts physicians who care for large minority populations.

Dale Bratzler, DO, MPH, currently serves as the Medical Director of the Hospital Interventions Quality Improvement Organization Support Centre and the Hospital Quality of Care Measures Special Study located at the Oklahoma Foundation for Medical Quality. In these roles, he provides clinical and technical support for local and national quality improvement initiatives including the Medicare National Pneumonia Project and the National Surgical Care Improvement Project. He is a Past President of the American Health Quality Association and was recently appointed by the Secretary of Health and Human Services to the National Advisory Council for the Agency for Healthcare Research and Quality. Dr Bratzler has published and presented locally and nationally on many occasions on topics related to healthcare quality, particularly related to improving care for pneumonia, increasing vaccination rates, and reducing surgical complications. Dr Bratzler received his Doctor of Osteopathic Medicine degree at the University of Health Sciences College of Osteopathic Medicine in Kansas City, Missouri, and his Master of Public Health degree from the University of Oklahoma Health Sciences Center College of Public Health. He is board certified in internal medicine. Dr Bratzler is an adjunct associate professor of health administration and policy at the University of Oklahoma College of Public Health.

References


3. Unlike the companion report that focuses on both quality and efficiency trends, the case study hospitals featured in this report were selected based on improvement in quality measures, although we excluded hospitals that displayed declining efficiency over the period examined.

4. The National Association of Independent Physicians defines hospitalists as “physicians whose primary professional focus is the general medical care of hospitalized patients.” Their activities include patient care, teaching and research, and leadership related to hospital care. An intensivist is a hospitalist who specializes in the care of critically ill patients, usually in an intensive care unit.
Imagine - believe - achieve: Patient safety on the front-line

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Abstract

Our innovative involvement of the Patient Safety Champions established a grassroots approach to patient safety, best practices, quality and communication. The goal to enhance the culture of patient safety and family centred care through staff engagement inspires all to imagine a world without medical errors; believe in changes and achieve goals through collaboration.

Baptist Health South Florida (BHSF) has a long-standing history of a commitment to quality, patient safety and the community they serve. In 2003, Baptist Health embarked on its patient safety and quality journey ahead of changing national standards, guided by our Assistant Vice President for Risk Management and Organizational Learning patient safety consultant. We charted a course to inculcate a philosophy of patient safety, inspiring and educating all employees, physicians and our patients to imagine a world without medical errors; believes in changes and the process of a better future for our patients, their families and our providers; and achieve our goals through collaboration and concern for the well-being of others.

With six hospitals (1472 beds), 14 outpatient centres, nearly 2000 private practicing physicians and close to 12 000 employees, Baptist Health is the largest faith-based, not-for-profit health-care organization in South Florida. In 2007, the hospitals had 67 569 inpatient admissions, 10 144 births and 181 325 emergency room visits. During the same year, BHSF had 75 392 urgent care, 138 250 outpatient diagnostic and 30 420 home health visits. This demonstrates Baptist Health's tremendous responsibility to our community, patients, employees and medical staff.

Description of the programme

The innovative involvement of our frontline staff is the foundation of our patient safety champion programme. Since 2004, more than 1000 employees representing all areas of the organization have been trained as “Patient Safety Champions”. The Champions provide the underpinning for all the efforts directed at improving safety and quality of care. They have volunteered for this front-line role, sharing information, best practices and knowledge with co-workers at meetings; keeping patient safety opportunities in the forefront; encouraging colleagues to be aware of and speak up for patient safety; conducting unit-specific patient safety rounds; using storytelling; with rewards and recognition for employees who do the right thing.

This programme has expanded adding new dimensions to establishing best practices, involving patients and families in their safe care. Champions initiate unit specific problem solving through our TRIM (Lean) process and support a family centred approach by demonstrating dignity and respect for their patients and colleagues.

More than 250 managers and senior executives participated in leadership Patient Safety Champion training to support their front-line Champions. Every new leader receives patient safety training and new employee orientation includes a session with mini-champion training for new nurses. Baptist Health’s President/CEO includes patient safety training at executive and Board retreats.

Patient and family involvement in planning and implementation of the programme

Because of Baptist Health’s size in the community, we hold a unique position of responsibility not only to our patients, their families and the community, but also our workforce. While the initial programme was developed by our internal patient safety education consultant, and targeted internally towards the development of the Patient Safety Champions, input was immediately received from
the champions themselves on ways to improve our culture and training programmes throughout BHSF.

We currently have engaged patient and family advisers providing critical input on key committees, including the patient/family advisory council in our children’s hospital, on our Quality and Patient Safety Steering Council, entity patient safety committees and on our Board on Quality and Patient Safety. We plan to cultivate and spread this practice of actively engaging our patients and their families in quality and improvement activities at all levels of the system.

Methods and activities

Champions initially undergo eight hours of training and attend quarterly meetings and annual patient safety and risk management seminars. They have an opportunity to talk to leadership about “what is keeping me up at night about patient safety.” They are recognized for their important role and rewarded during Patient Safety Awareness Week. (This year key chains with charms that say “imagine,” “believe,” and “achieve” were distributed.)

TRIM training was initiated in spring 2008 with training for over 200 of our patient safety champions. TRIM follows the principles of Toyota LEAN methodologies including value stream mapping and A3 reports. The response has been overwhelming with departmental request for additional training and numerous success stories generated to date.

We have also included the patient safety champion content in our Versant RN residency curriculum establishing the importance of our philosophy to support our new graduates. This addition to the curriculum has now been added by Versant to their programme.

Outcomes

Measuring our success the champions have been nationally showcased by the National Patient Safety Foundation in its newsletter and a webinar with more than 200 participants from 65 organizations. The concept has been presented at the annual American Society of Healthcare Risk Management, annual Healthcare Education Association and Versant Residency conferences.

- A baseline patient safety climate survey in February 2005 was repeated in January 2008. Improvements were in nearly every area, including questions related to staff feeling supported and threatened by reporting mistakes. For the statement regarding hospital management providing a climate that promotes patient safety, “strongly agree” went from 27.5% to 47%; those who “strongly agree” that hospital management shows that patient safety is a top priority increased from 41.3% to 55.3%.
- Customized questions on employee surveys since 2004 show improvements in “strongly agree” statements about comfort level reporting safety issues (73% to 78%), and actions taken to fix problems (67% to 73%)
- Mean scores went up considerably in all inpatient, outpatient and ambulatory surgery areas to a custom question added in 2003 to Press Ganeys patient satisfaction surveys that checks whether patients feel adequate precautions were “taken by the staff to protect your safety, such as hand washing, checking identification bands, etc.”
- All of our hospitals measured in the top 10% for the most recent national performance rates (April 2006–March 2007) found on www.hospitalcompare.hhs.gov.
- Our falls prevention programme, launched in 2001, continues to see a 50% decline in patient falls in all categories.
- Physician satisfaction in benchmark surveys has gone up at all Baptist Health hospitals from 2003–2007, with scores now in the 90th percentile.
- We’ve seen a 50% decrease in four years in the number of mandatory reportable incidents to the state of Florida, as well as in medical malpractice claims.

Lessons learned and future implications

Our patient/family members on our patient safety committees, steering council and boards have shared their perspectives with our champions and some have attended our patient safety champion training. We are in the process of developing an orientation – including healthcare abbreviations for our community advisors – a key issue identified by our members.

Our children’s hospital already has an active family advisory board. Building on that success, in October we will kick off a system Pediatric Steering Council to establish harmonization for pediatric patients across Baptist Health. In addition, we have set the stage to implement a Condition Help/Code H pilot at our children’s hospital in early 2009.

Next steps will include adult condition help, increasing patient/family involvement in committees and establishing an Adult Steering Council. Our journey continues to evolve and remains a continued story.

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