NATIONAL QUALITY FORUM

PATIENT SAFETY ADVISORY COMMITTEE

FINAL REPORT

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INTRODUCTION

Over the last decade, the National Quality Forum (NQF) has pursued a varied set of patient safety projects. Given the changes underway in healthcare, this is an opportune time to look closely at the current set of NQF activities and identify potential future initiatives. NQF's Patient Safety Advisory Committee (PSAC) was formed in 2009 and charged with developing specific project plans, providing advice about NQF's patient safety priorities, ensuring input was obtained from relevant stakeholders, reviewing draft products, and recommending specific measures and research priorities. This report of the Committee's work summarizes the current NQF portfolio and suggests the following five areas for further development:

- target NQF patient safety projects to where the most harm in healthcare persistently occurs;
- prioritize measures or practices that help prevent repetition of the most commonly occurring errors;
- develop NQF Calls for Serious Reportable Events, Measures, and Practices to where gaps in patient safety care exist;
- provide guidance on patient safety to different national organizations, as there is no patient safety oversight agency in the United States; and
- Align NQF efforts with other health policy organizations and initiatives.

NQF has developed three core programs in patient safety: *Serious Reportable Events in Healthcare* (SREs), *Safe Practices for Better Healthcare* (SPs), and *Patient Safety Measures* (PSMs). These programs provide guidance for patient safety in the healthcare industry. Their goal collectively is to upgrade the knowledge base of activities that improve patient safety and to continue providing established standards that can help prevent the flawed processes which create patient harm. These programs historically have not had significant overlap or complementarity, but building the improved connections among them is a priority for NQF's patient safety efforts.

While these patient safety programs have the largest degree of national awareness and influence of NQF's safety programs, NQF has also conducted a variety of other smaller scale convening activities and projects that are organized together with the three primary programs

as an evolving NQF Patient Safety portfolio. The next phase of development for this portfolio is to refine the organizational approach toward patient safety for the next three to five years.

PROJECT OVERVIEWS

Serious Reportable Events in Healthcare (SREs)

In 2002, NQF published a report, *Serious Reportable Events in Healthcare*, which identified 27 adverse events that are serious, largely preventable, and of concern to both the public and healthcare providers. The project's objective was to establish consensus among consumers, providers, purchasers, researchers, and other healthcare stakeholders about preventable adverse events that should never occur and to define them in a way that, should they occur, would make it clear what had to be reported. This report was updated in 2006, with one additional event added. The 2006 update also summarized the progress in implementing the list and provided guidance to those engaged in implementing such reporting systems.

There are 28 events classified in six categories: surgical, product or device, patient protection, care management, environment, or criminal. The SREs list includes both injuries caused by care management and errors that occur from failure to follow standard care or institutional practices and policies. This SRE list is currently being updated with revisions and additions to the 2006 listing for publication in 2011.

As part of the updating process, a revised SRE definition is being used. The definition was proposed by the NQF SRE Steering Committee and revised after an open NQF Member and public comment period. The work of the SRE Steering Committee is not yet complete and will be subject to further refinements based upon NQF Member and public comment periods later this year. The proposed SRE definition provides a broader corridor for events along the continuum of preventability.

The proposed definition of an SRE and a definition of terms follow:

> *SREs are defined as preventable, serious, and unambiguous adverse events. Some types of SREs are universally preventable and should never occur. Other types of SREs are largely preventable and, over time, may be reduced to zero as knowledge and safe practices evolve. Both types of SREs should be publicly reported.*

Preventable	describes an event that could have been anticipated and prepared for, but that occurs because of an error or other system failure
Serious	describes an event that can result in death or loss of a body part, disability, or loss of bodily function
Unambiguous	refers to an event that is clearly defined and easily identified

NQF will also expand the concept and use of SREs to environments of care beyond hospital settings. The SRE Steering Committee recently decided that the following environments of care, in addition to hospitals, will be the initial priority areas for expansion of SREs:

- ambulatory and office-based surgery centers;
- nursing homes, specifically skilled nursing facilities; and
- Ambulatory practice settings, specifically physician offices.

Overall, stakeholders have adopted the SREs because they are well recognized, have a general focus, are intuitively appealing, are understood by the public, and are adaptable. To date, 26 states and the District of Columbia require licensed healthcare facilities to report SREs; states use the full NQF SRE list, others use lists they have developed, and some use a hybrid. Numerous national and international agencies are beginning to adopt this strategy for reporting or are considering implementing the list. For example, under Medicare authority (October 1, 2008), the Centers for Medicare & Medicaid Services (CMS) reduced payment to treat a list of complications CMS deemed preventable with high quality care—many are drawn from NQF's SREs list. There has been similar uptake by other members of the purchaser community.

Safe Practices for Better Healthcare (SPs)

The NQF SPs are a set of voluntary consensus standards that healthcare providers, purchasers, and consumers can use to identify and encourage practices to reduce errors that might create patient harm. These practices are not intended to capture all activities that might reduce adverse events or SREs; rather they focus on practices that:

- have strong evidence that they can reduce harm;

- have significant benefits to patient safety in multiple settings; and
- Contain knowledge useful to consumers, purchasers, providers, and researchers.

The SPs are well recognized in the field; have a focus on improvement of care rather than punishment for poor care; are based upon up-to-date evidence; provide a way to support improvement in areas such as leadership/culture and teamwork for which there are not yet well-developed measures; and are being widely adopted across a spectrum of organizations and environments. The SPs are readily available on an internet-based electronic platform that is continually undergoing refinement for improved interactivity.

The current 34 NQF Safe Practices are grouped into seven functional categories: Creating and Sustaining a Culture of Safety; Informed Consent, Life-Sustaining Treatment, Disclosure, Care of Caregiver; Matching Healthcare Needs with Service Delivery Capability; Facilitating Information Transfer and Clear Communication; Medication Management; Healthcare Associated Infections; and Condition and Site-Specific Practices.

Patient Safety Measures (PSMs)

There are now well over 600 NQF-endorsed measures® across a variety of clinical areas and healthcare settings, which each get reappraised on a triennial basis to ensure that they remain best-in-class. Of these measures, approximately 20 percent relate directly to patient safety and the prevention of harm to patients. While the 34 SPs, 28 SREs, and these PSMs are important tools for tracking and improving patient safety performance in American healthcare, significant gaps persist in the measurement of patient safety.

At the request of the Agency for Healthcare Research and Quality (AHRQ), the RAND Corporation recently reviewed the status of all known patient safety measures using a modified Delphi consensus process. Of the 106 safety measures identified, 81 (76.42 percent) were NQF-endorsed and 48 of these (59.23 percent) were rated as "high" or "moderate" in the scoring strategy for the project. While NQF's measures are indeed well-regarded in the field, NQF seeks to find "best in class" metrics that are strong performance indicators.

The current project, *National Voluntary Consensus Standards for Patient Safety*, has solicited patient safety measures to fill gap areas and address environment-specific issues with the highest potential leverage for improvement. This effort, which will be completed in 2011, helps to foster accountability among providers and brings a systematic approach to identifying and addressing organizational shortcomings.

Other Projects

While the NQF portfolio is centered on the SPs, SREs, and PSMs, there has been a strategic effort to expand beyond these three programs. These projects include:

Patient Safety Framework—Public Reporting of Patient Safety Events

This is a recently completed project that sought to achieve voluntary consensus on a framework for measuring, evaluating, and publicly reporting so-called patient safety events. The intention of this framework is to:

- clarify organizational issues around each of the topic areas—measuring, evaluating, and meaningful public reporting of patient safety events;
- distinguish reporting strategies that may need to differ based on the kind of event(s) reported;
- identify approaches to mitigate issues in public reports that prevent honest, balanced reporting; and
- Design or refine public reports to convey information about the safety of care delivered in ways that resonate with the target audience(s).

The framework report will provide guidance on public report design and implementation strategies to increase the value and usefulness of publicly reported information and to stimulate industry action toward improvement in quality of care, patient safety, and patient-centeredness.

Improving Patient Safety through State-Based Reporting in Healthcare Initiative (SBR)

This initiative emanated from an October 2009 meeting, convened by NQF, of state reporting agency managers, which sought to provide guidance and build awareness on their uses of SREs. It has evolved into a national working group (of public sector leaders and states), which NQF

aims to continue convening into 2011 and beyond; it serves as a means for continuous quality improvement on the complex set of issues related to healthcare reporting.

NQF Process to Receive Comments on the Common Formats (Common Formats)

The Common Formats for Patient Safety Data is an AHRQ initiative that provides facilities the means to collect and aggregate data for pattern analysis, learning, and trending of patient safety events. NQF, as part of an ongoing multi-year effort, enables AHRQ to obtain and respond to stakeholder input, and to receive expert guidance on refining the Common Formats.

National Priorities Partnership (NPP)—Patient Safety Priority

Convened by NQF in 2008, the NPP Patient Safety priority is a diversely populated workgroup actively underway with its initial focus on peri-operative care and patient safety. The project will continue through 2010 and is designed to promote: the augmentation of cross-disciplinary team functions in the peri-operative environment, the adoption of safe practices; and appropriate measures that will result in minimizing healthcare-associated infections (HAIs), especially surgical site infections (SSIs), and serious reportable events (SREs).

RECOMMENDATIONS

The PSAC members agree that NQF's current Patient Safety portfolio addresses three key topic areas and has categorized the NQF programs accordingly:

- **What are the important safety issues?**
  Serious Reportable Events, NPP Patient Safety, and Patient Safety Measures
- **How should we measure and report safety issues?**
  Patient Safety Measures, Common Formats, State-Based Reporting Agencies
- **How do we improve patient safety?**
  Safe Practices

With these topics as a focus, the Committee recommends the following themes to guide future development of the portfolio:

- Prioritize Harm and Provide Clear Guidance
  The PSAC believes that the Safe Practices program provides clear-cut, precise metrics that facilitate understanding and awareness in the field to reduce high volume adverse

events. As it is often a challenge to measure goals in patient safety, it is important to target projects based on evidence as to where harm occurs. *NQF would provide significant value to the field by using this research to prioritize endorsement of outcome-based measures where harm exists most.*

- Expand Outreach

  The PSAC has indicated a preference for NQF to collaborate more closely with three organizations that maintain a focus on patient safety issues: AHRQ, The Joint Commission (TJC), and the Centers for Medicare & Medicaid Services (CMS). Following this strategy would represent a national level of potential harmonization for patient safety initiatives between federal payment policies (CMS), standards and accreditation (TJC), research and reporting (AHRQ), and measurement with public reporting (NQF), and help minimize the often siloed development of patient safety metrics.

- Harmonize

  NQF programs should be meaningful and actionable in the field, so as to not create confusion, and be duplicative of past efforts by NQF or other organizations.
  As NQF advances its patient safety agenda and endorses measures, it should consistently liaise with organizations and prioritize its work on utility to the field.

The burden of measurement and public reporting is also a crucial issue. With the impending significant expansion of healthcare access, providers have been faced with steadily increasing levels of internal and external reporting requirements, including CMS's mandate that, by 2011, central-line associated bloodstream infections must be reported to the National Healthcare Safety Network.[1] Despite the clear benefits of reporting, providers must adhere to regulations that are increasing in number and complexity, or face fines or a punitive reaction. [2,3] These adverse events may not become apparent in the hospital setting, but with the rise of Accountable Care Organizations, are ongoing priorities in the effort to reduce harm. *It is in this environment that the PSAC recommends that NQF must continue to provide focused, harmonized efforts to develop patient safety metrics which do not encumber, and instead provide meaningful, actionable items for the field. In turn, as suggested by NQF's National Voluntary Consensus Standards for the*

Reporting of Patient Safety Event Information, the integrity and accuracy of data generated and used in public reporting is paramount.

The PSAC also recommends continuing the ongoing support activities for the Patient Safety portfolio, such as: refinement of patient safety web content to continually inform stakeholders as NQF's work evolves (i.e., development of electronic documents such as issue briefs, FAQs, newsletters, learning modules, etc.); proactive activities with external relations (i.e., submission of abstracts, external presentations, peer review manuscripts, advisory board activity, etc.); interactions for public and media related inquiries; and continuing to connect with the World Health Organization (WHO) programs such as the WHO *Reporting for Learning* initiative.

Other potential future NQF patient safety initiatives mentioned by the PSAC include:

- Ongoing *engagement with the broader patient safety community;*
- development of a *Consumer Patient Safety Index* (CPSI);
- As a matter of principle and practice, *patients and families will be active participants with providers* on all related committees in the discussion of future portfolio development;
- ongoing *education of providers and patients* regarding the NQF Patient Safety portfolio;
- development of *patient safety toolkits* for communities; and
- Promoting opportunity for *patient safety research.*

CONCLUSION

Increasing responsibility comes with increasing maturity and successes; NQF is no exception to this aphorism. The organization shoulders the responsibility to facilitate improved quality of care and to promulgate patient safety with harmonization efforts and strategic collaborations for the public's benefit. Amidst the rapidly evolving field of Patient Safety, NQF's portfolio offers a unique opportunity to leverage the organization's strengths to benefit patients, their families, and their communities. NQF must focus on developing metrics to meet those needs, and efficiently bring about change and reduce harm.

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Appendix A – NQF-Endorsed® Patient Safety Measures (As of November 20, 2009)

(1) **Safety (S)**: Measures that can be categorized as patient safety measures
  (1a) **Safe Practices (SP)**: Measures that correspond to one of the 34 Safe Practices for Better Healthcare
  (2a) **Serious Reportable Events (SRE)**: Measures that correspond to one of the 28 Serious Reportable Events
(3) **Quality/Safety (Q/S)**: Quality measures that may also be relevant to patient safety or have notable safety implications

Subsequently, additional categories were added for **mortality** and **readmission** measures. These measures are denoted in the tables below by an asterisk (*). Mortality and readmission measures are not safety measures *per se*, but they measure outcomes that may be indicative of patient safety issues.

Full List of Safety Measures:

General Patient Safety

531	Patient Safety for Selected Indicators	Number of potentially preventable adverse events	S	
531	Patient Safety for Selected Indicators	A composite measure of potentially preventable adverse events for selected indicators	S	
532	Pediatric Patient Safety for Selected Indicators	Number of potentially preventable adverse events	S	

Medication Management

19	Documentation of medication list in the outpatient record	Percentage of patients having a medication list in the medical record.	S	SP
20	Documentation of allergies and adverse reactions in the outpatient record	Percentage of patients having documentation of allergies and adverse reactions in the medical record.	S	SP
22	Drugs to be avoided in the elderly: a. Patients who receive at least one drug to be avoided, b. Patients who receive at least two different drugs to be avoided.	Percentage of patients ages 65 years and older who received at least one drug to be avoided in the elderly in the measurement year. Percentage of patients 65 years of age and older who received at least two different drugs to be avoided in the elderly in the measurement year.	S	SP

419	Universal Documentation and Verification of Current Medications in the Medical Record	Percentage of patients aged 18 years and older with a list of current medications with dosages (includes prescription, over-the-counter, herbals, vitamin/mineral/dietary [nutritional] supplements) and verified with the patient or authorized representative documented by the provider.	S	SP
486	Adoption of Medication e-Prescribing	Documents whether provider has adopted a qualified e-Prescribing system and the extent of use in the ambulatory setting.	S	SP
487	EHR with EDI prescribing used in encounters where a prescribing event occurred.	Of all patient encounters within the past month that used an electronic health record (EHR) with electronic data interchange (EDI) where a prescribing event occurred, how many used EDI for the prescribing event.	S	SP
504	Pediatric Weight Documented in Kilograms	Percent of emergency department patients < 18 years of age with a current weight in kilograms documented in the ED record	S	
554	Medication Reconciliation Post-Discharge (MRP)	Percentage of discharges from January 1 to December 1 of the measurement year for patients 65 years of age and older for whom medications were reconciled on or within 30 days of discharge.	S	SP
555	Monthly INR Monitoring for Beneficiaries on Warfarin	Average percentage of monthly intervals in which Part D beneficiaries with claims for warfarin do not receive an INR test during the measurement period	S	
556	INR for Beneficiaries Taking Warfarin and Interacting Anti-Infective Medications	Percentage of episodes with an INR test performed 3 to 7 days after a newly-started interacting anti-infective medication for Part D beneficiaries receiving warfarin	S	

Falls

35	Fall risk management in older adults: (a) Discussing fall risk; (b) Managing fall risk	Percentage of patients aged 75 and older who reported that their doctor or other health provider talked with them about falling or problems with balance or walking Percentage of patients aged 75 and older who reported that their doctor or other health provider had done anything to help prevent falls or treat problems with balance or walking	S	SP, SRE
101	Falls: Screening for Fall Risk	Percentage of patients aged 65 years and older who were screened for fall risk (2 or more falls in the past year or any fall with injury in the past year) at least once within 12 months	S	SP, SRE
141	Falls prevalence	Percentage of patients during a certain # of days who fell	S	SP, SRE
202	Falls with injury	Percentage of patients during a certain # of days who fell and acquired and injury	S	SP, SRE
266	Patient Fall	Percentage of ASC admissions experiencing a fall in the ASC.	S	SP, SRE

537	Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	Percent of home health episodes in which the patient was 65 or older and was assessed for risk of falls (using a standardized and validated multi-factor Fall Risk Assessment) at start or resumption of home health care	S	SP

Pressure Ulcers

181	Increase in number of pressure ulcers	Percentage of patients who had an increase in the number of pressure ulcers	S	SP, SRE
187	Recently hospitalized residents with pressure ulcers (risk adjusted)	Recently hospitalized residents with pressure ulcers	S	SP, SRE
198	High-risk residents with pressure ulcers	Percentag of residents with a valid target assessment and one of the following inclusion criteria: 1.Impaired in mobility or transfer on the target assessment 2. Comatose on the target assessment 3. Suffer malnutrition on the target assessment who have pressure ulcers	S	SP, SRE
199	Average-risk residents with pressure ulcers	Percentage of residents with a valid target assessment and not qualifying as high risk with pressure ulcers	S	SP, SRE
201	Pressure ulcer prevalence	Percentage of patients with stage II or greater hospital-acquired pressure ulcers	S	SP, SRE
337	Decubitus Ulcer (PDI 2)	Percent of surgical and medical discharges under 18 years with ICD-9-CM code for decubitus ulcer in secondary diagnosis field.	S	SP, SRE
538	Pressure Ulcer Prevention Included in Plan of Care	Percent of patients with assessed risk for Pressure Ulcers whose physician-ordered plan of care includes intervention(s) to prevent them	S	SP
539	Pressure Ulcer Prevention Plans Implemented	Percent of patients with assessed risk for Pressure Ulcers for whom interventions for pressure ulcer prevention were implemented during their episode of care	S	SP
540	Pressure Ulcer Risk Assessment Conducted	Percent of patients who were assessed for risk of Pressure Ulcers at start/resumption of home health care	S	SP
553	Care for Older Adults – Medication Review (COA)	Percentage of adults 65 years and older who had a medication review	S	SP

Mental Health

104	Major Depressive Disorder: Suicide Risk Assessment	Percentage of patients who had a suicide risk assessment completed at each visit	S	SRE
111	Bipolar Disorder: Appraisal for risk of suicide	Percentage of patients with bipolar disorder with evidence of an initial assessment that includes an appraisal for risk of suicide.	S	SRE

Surgery

115	Surgical Re-exploration*	Percent of patients undergoing isolated CABG who require a return to the operating room for bleeding/tamponade, graft occlusion, or other cardiac reason.	Q/S*	
267	Wrong Site, Wrong Side, Wrong Patient, Wrong Procedure, Wrong Implant	Percentage of ASC admissions experiencing a wrong site, wrong side, wrong patient, wrong procedure, or wrong implant.	S	SP, SRE
362	Foreign Body left after procedure (PDI 3)	Discharges with foreign body accidentally left in during procedure per 1,000 discharges	S	SRE
363	Foreign Body Left in During Procedure (PSI 5)	Discharges with foreign body accidentally left in during procedure per 1,000 discharges	S	SRE
452	Surgery Patients with Perioperative Temperature Management	Surgery patients for whom either active warming was used intraoperatively for the purpose of maintaining normothermia or who had at least one body temperature equal to or greater than 96.8° F/36° C recorded within the 30 minutes immediately prior to or the 15 minutes immediately after Anesthesia End Time.	S	SP

Hospital-Acquired Infection

304	Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)	Percentage of infants born at the hospital, whose birth weight is between 401 and 1500 grams OR whose gestational age is between 22 weeks 0 days and 29 weeks 6 days, who have late sepsis or meningitis, with one or more of the following criteria: Bacterial Pathogen, Coagulase Negative Staphylococcus, Fungal Infection	S	
344	Accidental Puncture or Laceration (PDI 1) (risk adjusted)	Percent of medical and surgical discharges under 18 years of age with ICD-9-CM code denoting accidental cut, puncture, perforation or laceration in any secondary diagnosis code.	S	HAC (CMS)
431	Influenza Vaccination Coverage among Healthcare Personnel	Percentage of healthcare personnel (HCP) who receive the influenza vaccination.	S	SP
478	Nosocomial Blood Stream Infections in Neonates (NQI #3)	Percentage of qualifying neonates with selected bacterial blood stream infections	S	HAI
500	Severe Sepsis and Septic Shock: Management Bundle	Initial steps in the management of the patient presenting with infection (severe sepsis or septic shock)	S	

Surgical Site Infection

125	Timing of Antibiotic Prophylaxis for Cardiac Surgery Patients	Percent of patients undergoing cardiac surgery who received prophylactic antibiotics within one hour prior to of surgical incision (two hours if receiving vancomycin).	S	SSI

126	Selection of Antibiotic Prophylaxis for Cardiac Surgery Patients	Percent of patients undergoing cardiac surgery who received prophylactic antibiotics recommended for the operation.	S	SSI
128	Duration of Prophylaxis for Cardiac Surgery Patients	Percent of patients undergoing cardiac surgery whose prophylactic antibiotics were discontinued within 24 hours after surgery end time.	S	SSI
130	Deep Sternal Wound Infection Rate	Percent of patients undergoing isolated CABG who developed deep sternal wound infection within 30 days post-operatively.	S	SSI
264	Prophylactic Intravenous (IV) Antibiotic Timing	Percentage of ASC patients who received IV antibiotics ordered for surgical site infection prophylaxis on time	S	SP, SSI
269	Timing of Prophylactic Antibiotics - Administering Physician	Percentage of surgical patients aged > 18 years with indications for prophylactic parenteral antibiotics for whom administration of the antibiotic has been initiated within one hour (if vancomycin, two hours) prior to the surgical incision or start of procedure when no incision is required.	S	SP, SSI
270	Timing of Antibiotic Prophylaxis: Ordering Physician	Percentage of surgical patients aged 18 years and older undergoing procedures with the indications for prophylactic parenteral antibiotics, who have an order for prophylactic antibiotic to be given within one hour (if fluoroquinolone or vancomycin, two hours), prior to the surgical incision (or start of procedure when no incision is required)	S	SP, SSI
299	Surgical Site Infection Rate	Percentage of surgical site infections occurring within thirty days after the operative procedure if no implant is left in place, or within one year if an implant is in place in patients who had an NHSN operative procedure performed during a specified time period and the infection appears to be related to the operative procedure.	S	SP, SSI
300	Cardiac patients with controlled 6AM postoperative serum glucose	Percentage of cardiac surgery patients with controlled 6a.m. serum glucose (</=200 mg/dl) on postoperative day (POD) 1 and POD 2	S	SP, SSI
301	Surgery patients with appropriate hair removal	Percentage of surgery patients with surgical hair site removal with clippers or depilatory or no surgical site hair removal	S	SP, SSI
434	Deep Vein Thrombosis (DVT) Prophylaxis	Patients with an ischemic stroke or a hemorrhagic stroke and who are non-ambulatory should start receiving DVT prophylaxis by end of hospital day two.	S	SP
450	Postoperative DVT or PE (PSI 12)	Percent of adult surgical discharges with a secondary diagnosis code of deep vein thrombosis or pulmonary embolism	S	SP
472	Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision or at the Time of Delivery – Cesarean section.	Percentage of patients undergoing cesarean section who receive prophylactic antibiotics within one hour prior to surgical incision or at the time of delivery.	S	SP, SSI
473	Appropriate DVT prophylaxis in women undergoing cesarean delivery	Measure adherence to current ACOG, ACCP recommendations for use of DVT prophylaxis in women undergoing cesarean delivery	S	SP
527	Prophylactic antibiotic received within 1 hour prior to surgical incision SCIP-Inf-2	Surgical patients who received prophylactic antibiotics within 1 hour of surgical incision (2 hours if receiving vancomycin)	S	SP, SSI

528	Prophylactic antibiotic selection for surgical patients	Surgical patients who received recommended prophylactic antibiotics for specific surgical procedures	S	SP, SSI
529	Prophylactic antibiotics discontinued within 24 hours after surgery end time	Surgical patients whose prophylactic antibiotics were discontinued within 24 hours after surgery end time	S	SP, SSI
`	Discontinuation of Prophylactic Antibiotics (Non-Cardiac Procedures)	Percentage of non-cardiac surgical patients aged 18 years and older undergoing procedures with the indications for prophylactic antibiotics AND who received a prophylactic antibiotic, who have an order for discontinuation of prophylactic antibiotics within 24 hours of surgical end time	S	SP

Urinary Tract Infection

138	Urinary catheter-associated urinary tract infection for intensive care unit (ICU) patients	Percentage of intensive care unit patients with urinary catheter-associated urinary tract infections	S	HAI
196	Residents with a urinary tract infection	Percentage of residents on most recent assessment with a urinary tract infection	S	
453	Urinary catheter removed on Postoperative Day 1 (POD1) or Postoperative Day 2 (POD2) with day of surgery being day zero.	Surgical patients with urinary catheter removed on Postoperative Day 1 or Postoperative Day 2 with day of surgery being day zero.	S	SP

Central Line-Related

139	Central line catheter-associated blood stream infection rate for ICU and high-risk nursery (HRN) patients	Percentage of ICU and high-risk nursery patients, who over a certain amount of days acquired a central line catheter-associated blood stream infections over a specified amount of line-days	S	HAI
298	Central Line Bundle Compliance	Percentage of intensive care patients with central lines for whom all elements of the central line bundle are documented and in place. The central line bundle elements include: •Hand hygiene •Maximal barrier precautions upon insertion •Chlorhexidine skin antisepsis •Optimal catheter site selection, with subclavian vein as the preferred site for non-tunneled catheters in patients 18 years and older •Daily review of line necessity with prompt removal of unnecessary lines	S	SP, SSI
464	Anesthesiology and Critical Care: Prevention of Catheter-Related Bloodstream Infections (CRBSI) – Central Venous Catheter (CVC) Insertion Protocol	Percentage of patients who undergo CVC insertion for whom CVC was inserted with all elements of maximal sterile barrier technique (cap AND mask AND sterile gown AND sterile gloves AND a large sterile sheet AND hand hygiene AND 2% chlorhexidine for cutaneous antisepsis) followed	S	SP

Ventilator-Related

140	Ventilator-associated pneumonia for ICU and high-risk nursery (HRN) patients	Percentage of ICU and HRN patients who over a certain amount of days have ventilator-associated pneumonia	S	HAI
302	Ventilator Bundle	Percentage of intensive care unit patients on mechanical ventilation at time of survey for whom all four elements of the ventilator bundle are documented and in place. The ventilator bundle elements are: •Head of bed (HOB) elevation 30 degrees or greater (unless medically contraindicated); noted on 2 different shifts within a 24 hour period •Daily “”sedation interruption” and daily assessment of readiness to extubate; process includes interrupting sedation until patient follow commands and patient is assessed for discontinuation of mechanical ventilation; Parameters of discontinuation include: resolution of reason for intubation; inspired oxygen content roughly 40%; assessment of patients ability to defend airway after extubation due to heavy sedation; minute ventilation less than equal to 15 liters/minute; and respiratory rate/tidal volume less than or equal to 105/min/L(RR/TV< 105) •SUD (peptic ulcer disease) prophylaxis •DVT (deep venous thrombosis) prophylaxis	S	SP, SSI

Venous Thromboembolism (VTE)

217	Surgery Patients with Recommended Venous Thromboembolism (VTE) Prophylaxis Ordered	Percentage of surgery patients with recommended Venous Thromboembolism (VTE) Prophylaxis ordered during admission	S	SP
218	Surgery Patients Who Received Appropriate Venous Thromboembolism (VTE) Prophylaxis Within 24 Hours Prior to Surgery to 24 Hours After Surgery End Time	Percentage of surgery patients who received appropriate Venous Thromboembolism (VTE) Prophylaxis within 24 hours prior to surgery to 24 hours after surgery end time	S	SP
239	Venous Thromboembolism (VTE) Prophylaxis	Percentage of patients aged 18 years and older undergoing procedures for which VTE prophylaxis is indicated in all patients, who had an order for Low Molecular Weight Heparin (LMWH), Low-Dose Unfractionated Heparin (LDUH), adjusted-dose warfarin, fondaparinux or mechanical prophylaxis to be given within 24 hours prior to incision time or within 24 hours after surgery end time.	S	SP

371	Venous Thromboembolism (VTE) Prophylaxis	This measure assesses the number of patients who received VTE prophylaxis or have documentation why no VTE prophylaxis was given the day of or the day after hospital admission or surgery end date for surgeries that start the day of or the day after hospital admission.	S	SP
372	Intensive Care Unit (ICU) VTE Prophylaxis	This measure assesses the number of patients who received VTE prophylaxis or have documentation why no VTE prophylaxis was given the day of or the day after the initial admission (or transfer) to the Intensive Care Unit (ICU) or surgery end date for surgeries that start the day of or the day after ICU admission (or transfer).	S	SP
375	VTE Discharge Instructions	This measure assesses the number of patients diagnosed with confirmed VTE that are discharged to home, to home with home health or home hospice on warfarin with written discharge instructions that address all four criteria: compliance issues, dietary advice, follow-up monitoring, and information about the potential for adverse drug reactions/interactions.	S	SP
376	Incidence of Potentially Preventable VTE	This measure assesses the number of patients diagnosed with confirmed VTE during hospitalization (not present on arrival) who did not receive VTE prophylaxis between hospital admission and the day before the VTE diagnostic testing order date.	S	SP
503	Anticoagulation for acute pulmonary embolus patients	Anticoagulation ordered for acute pulmonary embolus patients.	S	

Workforce

190	Nurse staffing hours - 4 parts	Percentage of daily work in hours by the entire group of nurses or nursing assistants spent tending to residents	S	SP
204	Skill mix (Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN], unlicensed assistive personnel [UAP], and contract)	Percentage of patient care responsibilities covered in productive hours worked by nursing staff (RN, LPN, UAP, and contract)	S	SP
205	Nursing care hours per patient day (RN, LPN, and UAP)	Percentage of nursing care hours per patient day worked by nursing staff (RN, LPN, and UAP)	S	SP

Restraints

193	Residents who were physically restrained daily during the 7-day assessment period	Percentage of residents on most recent assessments who were physically restrained daily during the 7-day assessment period	S	SRE
203	Restraint prevalence (vest and limb only)	Percentage of patients with vest and/or limb restraint on the day of the study	S	SRE

Radiation

382	Oncology: Radiation Dose Limits to Normal Tissues	Percentage of patients with a diagnosis of cancer receiving 3D conformal radiation therapy with documentation in medical record that normal tissue dose constraints were established within five treatment days for a minimum of one tissue	S	
510	Exposure time reported for procedures using fluoroscopy	Percentage of final reports for procedures using fluoroscopy that include documentation of radiation exposure or exposure time	S	

Miscellaneous

263	Patient Burn	Percentage of ASC admissions experiencing a burn prior to discharge	S	SRE
303	Late sepsis or meningitis in neonates (risk-adjusted)	Percentage of infants born at the hospital, whose birth weight is between 401 and 1500 grams OR whose gestational age is between 22 weeks 0 days and 29 weeks 6 days with late sepsis or meningitis with one or more of the following criteria: Bacterial Pathogen, Coagulase Negative Staphylococcus, Fungal Infection	S	
345	Accidental Puncture or Laceration (PSI 15)	Percent of medical and surgical discharges, 18 years and older, with ICD-9-CM code denoting accidental cut, puncture, perforation, or laceration in any secondary diagnosis field.	S	
346	Iatrogenic Pneumothorax (PSI 6) (risk adjusted)	Percent of medical and surgical discharges, 18 years and older, with ICD-9-CM code of iatrogenic pneumothorax in any secondary diagnosis field.	S	
348	Iatrogenic Pneumothorax in Non-Neonates (PDI 5) (risk adjusted)	Percent of medical and surgical discharges, age under 18 years, with ICD-9-CM code of iatrogenic pneumothorax in any secondary diagnosis field.	S	
349	Transfusion Reaction (PSI 16)	Percent of medical and surgical discharges, 18 years and older, with ICD-9-CM code for transfusion reaction in any secondary diagnosis field.	S	
350	Transfusion Reaction (PDI 13)	Percent of medical and surgical discharges, under 18 years of age, with an ICD-9-CM code for transfusion reaction in any secondary diagnosis field.	S	
451	Call for a Measure of Glycemic Control with Intravenous Insulin Implementation	Intravenous insulin glycemic control protocol implemented for cardiac surgery patients with diabetes or hyperglycemia admitted into an intensive care unit	S	SP
488	Adoption of Health Information Technology	Documents whether provider has adopted and is using health information technology. To qualify, the provider must have adopted and be using a certified/qualified electronic health record (EHR).	S	
491	Tracking of Clinical Results Between Visits	Documentation of the extent to which a provider uses a certified/qualified electronic health record (EHR) system to track pending laboratory tests, diagnostic studies (including common preventive screenings) or patient referrals. The Electronic Health	S	SP

		Record includes provider reminders when clinical results are not received within a predefined timeframe.		
501	Confirmation of Endotracheal Tube Placement	Any time an endotracheal tube is placed into an airway in the Emergency Department or an endotraceal tube is placed by an outside provider and that patient arrives already intubated (EMS or hospital transfer) or when an airway is placed after patients arrives to the ED there should be some method attempted to confirm ETT placement	S	
505	Thirty-day all-cause risk standardized readmission rate following acute myocardial infarction (AMI) hospitalization.	Hospital-specific 30-day all-cause risk standardized readmission rate following hospitalization for AMI among Medicare beneficiaries aged 65 years or older at the time of index hospitalization.	S	
506	Thirty-day all-cause risk standardized readmission rate following pneumonia hospitalization.	Hospital-specific 30-day all-cause risk standardized readmission rate following hospitalization for pneumonia among Medicare beneficiaries aged 65 years or older at the time of index hospitalization	S	
526	Timely Initiation of Care	Percent of patients with timely start or resumption of home health care	S	

Mortality*

119	Risk-Adjusted Operative Mortality for CABG©	Percent of patients undergoing isolated CABG who die during the hospitalization in which the CABG was performed or within 30 days of the procedure.	M	Mortality
120	Risk-Adjusted Operative Mortality for Aortic Valve Replacement (AVR)©	Percent of patients undergoing AVR who die, including both 1) all deaths occurring during the hospitalization in which the [procedure] was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.	M	Mortality
121	Risk-Adjusted Operative Mortality for Mitral Valve Replacement/Repair (MVR)	Percent of patients undergoing MVR who die, including both 1) all deaths occurring during the hospitalization in which the [procedures] was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.	M	Mortality
122	Risk-Adjusted Operative Mortality MVR+CABG Surgery	Percent of patients undergoing MVR and CABG who die, including both 1) all deaths occurring during the hospitalization in which the [procedure] was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.	M	Mortality
123	Risk-Adjusted Operative Mortality for AVR+CABG	Percent of patients undergoing AVR and CABG who die, including both 1) all deaths occurring during the hospitalization in which the [procedure] was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.	M	Mortality
133	PCI mortality (risk-adjusted)©	Percentage of PCI admissions who expired	M	Mortality

161	AMI inpatient mortality (risk-adjusted)	Percentage of acute myocardial infarction (AMI) patients who expired during hospital stay.	M	Mortality
229	Heart Failure 30-day Mortality	Percentage of patients with AMI age 65 years and older, with hospital-specific, risk standardized, all-cause 30-day mortality (defined as death from any cause within 30 days after the index admission date) for patients discharged form the hospital with a principal diagnosis of HF.	M	Mortality
230	Acute Myocardial Infarction 30-day Mortality	Percentage of patients with AMI age 65 years and older, with hospital-specific, risk standardized, all-cause 30-day mortality (defined as death from any cause within 30 days after the index admission date) for patients discharged form the hospital with a principal diagnosis of AMI.	M	Mortality
535	30-day all-cause risk-standardized mortality rate following percutaneous coronary intervention (PCI) for patients without ST segment elevation myocardial infarction (STEMI) and without cardiogenic shock	Hospital-specific 30-day all-cause risk-standardized mortality rate following Percutaneous Coronary Intervention (PCI) among patients aged 18 years or older without ST segment elevation myocardial infarction (STEMI) and without cardiogenic shock at the time of procedure.	M	Mortality
536	30-day all-cause risk-standardized mortality rate following Percutaneous Coronary Intervention (PCI) for patients with ST segment elevation myocardial infarction (STEMI) or cardiogenic shock	Hospital-specific 30-day all-cause risk-standardized mortality rate following Percutaneous Coronary Intervention (PCI) among patients aged 18 years or older with ST segment elevation myocardial infarction (STEMI) or cardiogenic shock at the time of procedure.	M	Mortality
358	Congestive Heart Failure Mortality (IQI 16) (risk adjusted)	Percent of in-hospital death for discharges, 18 years and older, with ICD-9-CM principle diagnosis code of CHF.	M	Mortality
339	Pediatric Heart Surgery Mortality (PDI 6) (risk adjusted)	Number of in-hospital deaths in patients undergoing surgery for congenital heart disease per 1000 patients.	M	Mortality
343	PICU Standardized Mortality Ratio	The ratio of actual deaths over predicted deaths for PICU patients.	M	Mortality
231	Inpatient Pneumonia Mortality	Percentage of patients with ICD-9-CM code of pneumonia as the principal diagnosis who were cases of in-hospital death among discharges.	M	Mortality
200	Death among surgical inpatients with treatable serious complications (failure to rescue)	Percentage of surgical inpatients with complications of care whose status is death	M	Mortality
347	Death in Low Mortality DRGs (PSI 2)	Percent of in-hospital deaths, age 18 years and older, in DRGs with less than 0.5% mortality rate.	M	Mortality

351	Death among surgical inpatients with serious, treatable complications (PSI 4)	Percent of in-hospital deaths for surgical discharges, age 18 years and older,with a principal procedure within 2 days of admission or elective, with enumerated complications of care listed in failure to rescue (FTR) definition (e.g., pneumonia, DVT/PE, sepsis, shock/cardiac arrest, or GI hemorrhage/acute ulcer).	M	Mortality
352	Failure to Rescue In-Hospital Mortality (risk adjusted)	Percentage of patients who died with a complications in the hospital.	M	Mortality
353	Failure to Rescue 30-Day Mortality (risk adjusted)	Percentage of patients who died with a complication within 30 days from admission.	M	Mortality
354	Hip Fracture Mortality Rate (IQI 19) (risk adjusted)	Percent of in-hospital deaths for discharges, age 18 years and older, with ICD-9-CM principal diagnosis code of hip fracture.	M	Mortality
359	Abdominal Aortic Artery (AAA) Repair Mortality Rate (IQI 11) (risk adjusted)	Number of deaths per 100 AAA repairs (risk adjusted).	M	Mortality
360	Esophageal Resection Mortality Rate (IQI 8) (risk adjusted)	Number of deaths per 100 esophageal resections for cancer (risk adjusted).	M	Mortality
365	Pancreatic Resection Mortality Rate (IQI 9) (risk adjusted)	Number of deaths per 100 pancreatic resections for cancer (risk adjusted).	M	Mortality
369	Dialysis Facility Risk-adjusted Standardized Mortality Ratio (32) Level	Risk-adjusted standardized mortality ratio for dialysis facility patients.	M	Mortality
467	Acute Stroke Mortality Rate (IQI 17)	Percent of in-hospital deaths for discharges, 18 years and older, with ICD-9-CM principal diagnosis code of stroke.	M	Mortality
468	Pneumonia (PN) 30-Day Mortality Rate	Hospital-specific, risk standardized, all-cause 30-day mortality (defined as death from any cause within 30 days after the index admission date) for patients discharged from the hospital with a principal diagnosis of pneumonia.	S	Mortality
530	Mortality for Selected Conditions	A composite measure of in-hospital mortality indicators for selected conditions.	M	Mortality
534	Hospital specific risk-adjusted measure of mortality or one or more major complications within 30 days of a lower extremity bypass (LEB).	Hospital specific risk-adjusted measure of mortality or one or more of the following major complications (cardiac arrest, myocardial infarction, CVA/stroke, on ventilator >48 hours, acute renal failure (requiring dialysis), bleeding/transfusions, graft/prosthesis/flap failure, septic shock, sepsis, and organ space surgical site infection), within 30 days of a lower extremity bypass (LEB) in patients age 16 and older.	M	Mortality

Readmissions*

329	All-Cause Readmission Index (risk adjusted)	Overall inpatient 30-day hospital readmission rate.	Q/S	

330	30-Day All-Cause Risk Standardized Readmission Rate Following Heart Failure Hospitalization (risk adjusted)	Hospital-specific, risk-standardized, 30-day all-cause readmission rates for Medicare fee-for-service patients discharged from the hospital with a principal diagnosis of heart failure (HF).	Q/S	
335	PICU Unplanned Readmission Rate	The total number of patients requiring unscheduled readmission to the ICU within 24 hours of discharge or transfer.	Q/S	
336	Review of Unplanned PICU Readmissions	Periodic clinical review of unplanned readmissions to the PICU that occurred within 24 hours of discharge or transfer from the PICU.	Q/S	

NATIONAL QUALITY FORUM

Appendix B - Patient Safety Advisory Committee

Dr. James P. Bagian, MD
Veterans Health Administration, Ann Arbor, MI

Dr. Jane H. Barnsteiner, RN, PhD, FAAN
University of Pennsylvania - School of Nursing, Philadelphia, PA

Mr. Robert Bunting, Jr., MSA, CPHRM, CPHQ, MT
WellPoint, Columbus, GA

Dr. David Classen, MD, MS
University of Utah, Salt Lake City, UT

Dr. Michael R. Cohen, MS, ScD, RPh, FASHP
Institute for Safe Medication Practices, Horsham, PA

Dr. Charles R. Denham, MD
Texas Medical Institute of Technology, Laguna Beach, CA

Mr. Dan Ford, MBA
Furst Group, Phoenix, AZ

Dr. Bruce Hall, MD, PhD, MBA
Washington University in Saint Louis, St. Louis, MO

Ms. Helen Haskell, MA
Mothers Against Medical Error, Columbia, SC

Mr. John M. Hickner, MD, MSc
Cleveland Clinic, Cleveland, OH

Mr. David Knowlton
New Jersey Health Care Quality Institute, Trenton, NJ

Ms. Nancy Leveille, MS, RN
New York State Health Facilities Association, Albany, NY

Dr. David Mayer, MD
Universityof Illinois at Chicago, College of Medicine, Chicago, IL

Dr. Philip Mehler, MD
Denver Health Medical Center, Denver, CO

Ms. Denise Murphy, MPH, BSN, RN, CIC
Main Line Health System, Bryn Mawr, PA

Dr. Rita Shane, PharmD, FASHP
Cedars-Sinai Medical Center, Los Angeles, CA

Dr. Arjun D. Sharma, MD
Boston Scientific Corproation, CRM, St. Paul, MN

Mr. Sam Watson, MSA
MHA Keystone Center for Patient Safety & Quality, Lansing, MI

Dr. Robert L. Wears, MD, MS, FACEP
University of Florida Health Science Center, Jacksonville, FL

NQF STAFF

Helen Burstin, MD, MPH
Senior Vice President, Performance Measures

Marybeth A. Farquhar, PhD, MSN, RN
Vice President, Performance Measures

Peter B. Angood, MD, FACS, FCCM
Senior Advisor, Patient Safety

Jennifer D. Hurst, MHS, CHC
Senior Project Manager, Patient Safety

Andrew Lyzenga, MPP
Project Manager, Patient Safety

Eric Colchamiro, MPA
Research Analyst, Patient Safety

Lindsey Tighe
Research Analyst, Patient Safety

NOTES

1. McKinney, Maureen. "The Infection Connection." *ModernHealthcare.com.* www.modernhealthcare.com/article/20100809/MAGAZINE/100809936. August 9, 2010. Last accessed August 16, 2010
2. Re: the complexity of reporting requirements, see Hagland, Mark. "INDUSTRY EXCLUSIVE: The Complexity Behind Quality Measures." *Healthcare Informatics*. www.healthcare-informatics.com/ME2/dirmod.asp?sid=E3EC2A8000454A258DF3AA343FDBDA9E&type=Publishing&mod=Publications%3A%3AArticle&mid=8F3A7027421841978F18BE895F87F791&tier=4&id=239CB6FFC15F42338CC0AD229B1EA5A2. Last accessed August 25, 2010.
3. Re: the punitive nature of reporting, please see Hines, Lora. "4 Riverside County Hospitals Fined for Error Report Delays." *The Press-Enterprise.* http://www.pe.com/localnews/healthcare/stories/PE_News_Local_D_adverse02.24f706a.html. June 1, 2010.