Purpose of the Project

American are exposed to more preventable medical errors than patients in other industrialized nations, costing the United States close to $29 billion per year in healthcare expenses, lost worker productivity, and disability. These costs are passed on in a number of ways, including insurance premiums, taxes, or lost work wages. Proactively addressing medical errors and unsafe care will help protect patients from harm, lead to more effective and equitable care, and can help safely reduce costs.

NQF has previously endorsed performance measures related to patient safety, most recently in January 2012. Since that time, NQF began a two-phase project to identify and endorse a broader set of patient safety measures focused on complications in healthcare. Phase I of the project sought to endorse measures related to medication safety, venous thromboembolism, surgery, and care coordination; phase II focused on falls, pressure ulcers, and healthcare-associated infections.

The resulting endorsed measures are a positive step forward in preventing medical errors, keeping patients safe from harm, and ensuring high-quality healthcare is available to all.

What Was Endorsed

<table>
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<tr>
<th>Measure submitted for consideration</th>
<th>Maintenance</th>
<th>New</th>
<th>Total</th>
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<tbody>
<tr>
<td>Measures withdrawn by the developer for more testing and further refinement</td>
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<tr>
<td>Measures recommended for endorsement</td>
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<tr>
<td>Measures not recommended for endorsement</td>
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Under the patient safety: complications endorsement project, NQF endorsed 30 measures suitable for accountability and quality improvement. Of the 30 measures, 28 were previously endorsed and granted continued endorsement status.

Measure stewards included a range of healthcare stakeholders, including the National Committee for Quality Assurance; the Centers for Medicare & Medicaid Services; The Joint Commission; the Agency for Healthcare Research and Quality; the Ambulatory Surgical Center Quality Collaboration; the American Nurses Association; and the Centers for Disease Control and Prevention. A full list of measures is available at the end of this report.
The Need these Measures Fill

This project sought to identify and endorse measures that specifically address patient safety and related complications. The endorsed measures from phase I focus on a wide range of care concerns, including high-risk medication use in the elderly; venous thromboembolism prophylaxis rates in ICU patients; wrong site, side, or patient surgeries; and foreign objects left behind following surgery, among others. Endorsed measures in phase II address issues such as fall risk management, pressure ulcer prevention and care, and infection rates for MRSA and *clostridium difficile* in hospitals. These measures will give the healthcare community the tools it needs to measure, report on, and improve safety for all patients.

Potential Use

These measures are applicable for use in a range of clinical settings and providers, which will help improve quality across the healthcare spectrum. Settings include acute care hospitals, ambulatory care centers, intensive care units, and clinician offices.

Project Perspectives

Preventable medical errors cost the United States billions of dollars each year, and leave patients and families to susceptible to prolonged illness or pain, undue anxiety and stress, and loss of productivity. The healthcare community needs evidence-based performance measures to help providers deliver safe, effective, and high-quality care. These measures will help accomplish this goal.

However, many of the measures could be improved if they addressed patient treatment across multiple settings of care. Steering Committee members recommended that aspects of a patient’s condition should be reassessed when admitted to a new department or facility; many of the measures were limited in their scope to a specific setting. Expanding their scope would help eliminate significant measure gaps.

The Steering Committee also identified several areas where future measure development is needed, including:

- Wound care measures, such as vascular screening for patients with leg ulcers, or adequate support surface for patients with stage III-IV pressure ulcers;
- Obstetric measures, such as induction and augmentation of labor, or outcomes of neonatal birth injury;
- Infection measures, such as vascular catheter infections;
- Equipment-related injury measures, such as monitoring of product-related events;
- Information technology measures, such as EHR programming related events;
- Physical mobility expectation measures for hospitalized adults;
- Measures that extend to settings outside of the hospital, such as nursing homes;
- Measures addressing falls across the care continuum and take into account patient assessments, plans of care, interventions, and outcomes; and
- Measures focused on complications linked to surgical site infections, including cesarean sections and outcomes.

Endorsed Measures

**0022: Use of High Risk Medications in the Elderly (NCQA)**

*Description:* a: Percentage of Medicare members 65 years of age and older who received at least one high-risk medication.

b: Percentage of Medicare members 65 years of age and older who received at least two different high-risk medications. For both rates, a lower rate represents better performance.

**0371: Venous Thromboembolism Prophylaxis (Joint Commission)**

*Description:* This measure assesses the number of patients who received venous thromboembolism (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. This measure is part of a set of six nationally implemented prevention and treatment measures that address VTE (VTE-2:
ICU VTE Prophylaxis, VTE-3: VTE Patients with Anticoagulation Overlap Therapy, VTE-4: VTE Patients Receiving UFH with Dosages/Platelet Count Monitoring, VTE-5: VTE Warfarin Therapy Discharge Instructions and VTE-6: Incidence of Potentially-Preventable VTE) that are used in The Joint Commission’s accreditation process.

**0372: Intensive Care Unit Venous Thromboembolism Prophylaxis (Joint Commission)**

*Description:* This measure assesses the number of patients who received venous thromboembolism (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). This measure is part of a set of six prevention and treatment measures that address VTE (VTE-1: VTE Prophylaxis, VTE-3: VTE Patients with Anticoagulation Overlap Therapy, VTE-4: VTE Patients Receiving UFH with Dosages/Platelet Count Monitoring by Protocol, VTE-5: VTE Warfarin Therapy Discharge Instructions and VTE-6: VTE Incidence of Potentially-Preventable VTE).

**0373: Venous Thromboembolism Patients with Anticoagulant Overlap Therapy (Joint Commission)**

*Description:* This measure assesses the number of patients diagnosed with confirmed VTE who received an overlap of Parenteral (intravenous [IV] or subcutaneous [subcu]) anticoagulation and warfarin therapy. For patients who received less than five days of overlap therapy, they should be discharged on both medications and have a Reason for Discontinuation of Overlap Therapy. Overlap therapy should be administered for at least five days with an international normalized ratio (INR) greater than or equal to 2 prior to discontinuation of the parenteral anticoagulation therapy, or INR less than 2 but discharged on both medications or have a Reason for Discontinuation of Overlap Therapy. This measure is part of a set of six prevention and treatment measures that address VTE (VTE-1: VTE Prophylaxis, VTE-2: ICU VTE Prophylaxis, VTE-4: VTE Patients Receiving UFH with Dosages/Platelet Count Monitoring, VTE-5: VTE Warfarin Therapy Discharge Instructions and VTE-6: VTE Incidence of Potentially-Preventable VTE).

**0450: Postoperative Pulmonary Embolism or Deep Vein Thrombosis Rate (PSI 12) (AHRQ)**

*Description:* Percent of discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM codes for deep vein thrombosis or pulmonary embolism in any secondary diagnosis field.

**0267: Wrong Site, Wrong Side, Wrong Patient, Wrong Procedure, Wrong Implant (Ambulatory Surgical Center Quality Collaboration)**

*Description:* Percentage of ASC admissions experiencing a wrong site, wrong side, wrong patient, wrong procedure, or wrong implant event.

**0344: Accidental Puncture or Laceration Rate (PDI 1) (AHRQ)**

*Description:* Percent of discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code denoting accidental cut, puncture, perforation, or laceration during a procedure in any secondary diagnosis field.

**0345: Accidental Puncture or Laceration Rate (PSI 15) (AHRQ)**

*Description:* Percent of discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code denoting accidental cut, puncture, perforation, or laceration during a procedure in any secondary diagnosis field.

**0362: Foreign Body left after procedure (PDI 3) (AHRQ)**

*Description:* Count of discharges with foreign body left in during procedure in medical and surgical discharges among patients less than 18 years and not MDC 14 (pregnancy, childbirth, and puerperium).

**0363: Foreign Body Left During Procedure (PSI 5) (AHRQ)**

*Description:* Count of discharges with foreign body left in during procedure in medical and surgical discharges among patients 18 years and older or MDC 14 (pregnancy, childbirth, and puerperium).

**0263: Patient Burn (Ambulatory Surgical Center Quality Collaboration)**

*Description:* Percentage of ASC admissions experiencing a burn prior to discharge.
0346: Iatrogenic Pneumothorax Rate (PSI 6) (AHRQ)
Description: Percent of discharges with ICD-9-CM code for iatrogenic pneumothorax in any secondary diagnosis field among cases meeting the inclusion and exclusion rules for the denominator.

0348: Iatrogenic Pneumothorax Rate (PDI 5) (AHRQ)
Description: Percent of discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code of iatrogenic pneumothorax in any secondary diagnosis field.

0349: Transfusion Reaction (PSI 16) (AHRQ) (reserve status)
Description: The count of medical and surgical discharges for patients age greater than or equal to 18 or in MDC 14 with ICD-9-CM code for transfusion reaction in any secondary diagnosis field.

0350: Transfusion Reaction (PDI 13) (AHRQ) (reserve status)
Description: The count of medical and surgical discharges for patients age less than 18 and not in MDC 14 with ICD-9-CM code for transfusion reaction in any secondary diagnosis field.

0035: Fall risk management (NCQA)
Description: a) Discussing Fall Risk. The percentage of adults 75 years of age and older, or 65–74 years of age with balance or walking problems or a fall in the past 12 months, who were seen by a practitioner in the past 12 months and who discussed falls or problems with balance or walking with their current practitioner. b) Managing Fall Risk. The percentage of adults 65 years of age and older who had a fall or had problems with balance or walking in the past 12 months, who were seen by a practitioner in the past 12 months and who received fall risk intervention from their current practitioner.

0101: Falls: screening, risk-assessment, and plan of care to prevent future falls (NCQA)
Description: This is a clinical process measure that assesses falls prevention in older adults. The measure has three rates:
A) Screening for Future 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
B) Multifactorial Risk Assessment for Falls: Percentage of patients aged 65 years and older with a history of falls who had a risk assessment for falls completed within 12 months
C) Plan of Care to Prevent Future Falls: Percentage of patients aged 65 years and older with a history of falls who had a plan of care for falls documented within 12 months

0266: Patient fall (Ambulatory Surgical Centers Quality Collaborative)
Description: Percentage of Ambulatory Surgical Center (ASC) admissions experiencing a fall in the ASC.

0537: Multifactor fall risk assessment conducted in patients 65 and older (CMS)
Description: Percentage of home health episodes of care in which patients 65 and older had a multi-factor fall risk assessment at start/resumption of care.

0538: Pressure ulcer prevention and care (CMS)
Description: Pressure Ulcer Risk Assessment Conducted: Percentage of home health episodes of care in which the patient was assessed for risk of developing pressure ulcers at start/resumption of care.
Pressure Ulcer Prevention Included in Plan of Care: Percentage of home health episodes of care in which the physician-ordered plan of care included interventions to prevent pressure ulcers.
Pressure Ulcer Prevention Implemented during Short Term Episodes of Care: Percentage of short term home health episodes of care during which interventions to prevent pressure ulcers were included in the physician-ordered plan of care and implemented.
**0337: Pressure ulcer rate (PDI 2) (AHRQ)**
*Description:* Percent of discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code of pressure ulcer in any secondary diagnosis field and ICD-9-CM code of pressure ulcer stage III or IV (or unstagable) in any secondary diagnosis field.

**0347: Death rate in low-mortality diagnosis related groups (PSI 2)(AHRQ)**
*Description:* Percent of discharges with disposition of “deceased” (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.

**0204: Skill mix (Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN], Unlicensed Assistive Personnel [UAP], and contract)(American Nurses Association)**
*Description:* NSC-12.1 - Percentage of total productive nursing hours worked by RN (employee and contract) with direct patient care responsibilities by hospital unit.

NSC-12.2 - Percentage of total productive nursing hours worked by LPN/LVN (employee and contract) with direct patient care responsibilities by hospital unit.

NSC-12.3 - Percentage of total productive nursing hours worked by UAP (employee and contract) with direct patient care responsibilities by hospital unit.

NSC-12.4 - Percentage of total productive nursing hours worked by contract or agency staff (RN, LPN/LVN, and UAP) with direct patient care responsibilities by hospital unit.

Note that the skill mix of the nursing staff (NSC-12.1, NSC-12.2, and NSC-12.3) represent the proportions of total productive nursing hours by each type of nursing staff (RN, LPN/LVN, and UAP); NSC-12.4 is a separate rate.

**0205: Nursing hours per patient day (American Nurses Association)**
*Description:* NSC-13.1 (RN hours per patient day) - The number of productive hours worked by RNs with direct patient care responsibilities per patient day for each in-patient unit in a calendar month.

NSC-13.2 (Total nursing care hours per patient day) - The number of productive hours worked by nursing staff (RN, LPN/LVN, and UAP) with direct patient care responsibilities per patient day for each in-patient unit in a calendar month.

**0206: Practice Environment Scale – Nursing Work Index (PES-NWI) (composite and five subscales)(The Joint Commission)**
*Description:* Practice Environment Scale-Nursing Work Index (PES-NWI) is a survey based measure of the nursing practice environment completed by staff registered nurses; includes mean scores on index subscales and a composite mean of all subscale scores.

**1716: National Healthcare Safety Network (NHSN) facility-wide inpatient hospital-onset Methicillin-resistant Staphylococcus aureus (MRSA) bacteremia outcome measure (CDC)**
*Description:* Standardized infection ratio (SIR) of hospital-onset unique blood source MRSA Laboratory-identified events (LabID events) among all inpatients in the facility.

**1717: National Healthcare Safety Network (NHSN) facility-wide hospital-onset Clostridium difficile Infection (CDI) outcome measure (CDC)**
*Description:* Standardized infection ratio (SIR) of hospital-onset CDI Laboratory-identified events (LabID events) among all inpatients in the facility, excluding well-baby nurseries and neonatal intensive care units (NICUs).

**0141: Patient fall rate (American Nurses Association)**
*Description:* All documented falls, with or without injury, experienced by patients on eligible unit types in a calendar quarter. Reported as Total Falls per 1,000 Patient Days and Unassisted Falls per 1000 Patient Days.

**0202: Falls with injury (American Nurses Association)**
*Description:* All documented patient falls with an injury level of minor or greater on eligible unit types in a calendar quarter. Reported as Injury falls per 1000 Patient Days.