Implementation Guide for the NQF Endorsed Nursing-Sensitive Care Measure Set 2009
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Introduction and Background

Nursing-Sensitive Care Performance Measures

The development of this implementation guide and the subsequent testing of the requisite measures was done in two phases by The Joint Commission with funding from the Robert Wood Johnson Foundation (RWJF). The first phase required the integration of all identified measures from disparate measure developers at the data element level, the establishment of uniform technical specifications, and the creation of standardized specifications in an implementation guide. Subsequently, additional funding was obtained from RWJF for comprehensive testing of the nursing-sensitive care measure set for reliability, feasibility and impact on quality of care. The following describes the history of the nursing-sensitive measures and the consequent development of the implementation guide and completion of measure testing.

The History of the Nursing-Sensitive Care Measures

In January 2004, the National Quality Forum (NQF) identified and endorsed 15 national voluntary consensus standards for nursing-sensitive care including evidence-based performance measures, a framework for measuring nursing-sensitive care, and related research recommendations. These performance measures were identified through the established NQF Consensus Development Process that brings together diverse healthcare stakeholders.

As with other NQF consensus projects, A Steering Committee representing key healthcare constituencies – including consumers, providers, purchasers, and research and quality improvement organizations-was convened to establish the initial approach to identifying, assessing and recommending the consensus standards. In September 2003 the Committee recommended a set of measures that was forwarded to NQF Members and the public for comment in accordance with NQF’s Consensus Development Process (CDP). In September 2003, following the Steering Committee’s selection and recommendation of measures, a three-member Technical Advisory Panel (TAP) was also consulted. The TAP’s role was to serve as additional technical review of the measures, as well as to advise NQF on specific scientific and research issues that might inform discussions on outstanding questions before the Committee.

1 Voluntary consensus standards are defined as “common and repeated use of rules, conditions, guidelines or characteristics for products or related processes and production methods, and related management systems practices; the definition of terms; classification of components; delineation of procedures; specification of dimensions, materials, processes, products, systems, services, or practices; test methods and sampling procedures; or descriptions of fit and measurements of size or strength.” U.S. Office of Management and Budget, Revised Circular A-119, Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities; February 10, 1998.
This initial measure set complemented and extended existing hospital care measures with links to nursing care in the NQF *National Voluntary Consensus Standards for Hospital Care: An Initial Performance Measure Set*. Most of the endorsed measures are derived from other national hospital and nursing initiatives (e.g., Centers for Medicare and Medicaid Services-Quality Improvement Organizations [CMS-QIOs], The Joint Commission-Core Measures [*Specifications Manual for National Implementation of Hospital Core Measures*], the American Nurses Association-National Database of Nursing Quality Indicators [ANA-NDNQI], Collaborative Alliance for Nursing Outcomes [CALNOC] database project, VHA Inc.).

The identification of this initial nursing-sensitive measure set by the National Quality Forum was a significant first step towards national standardized measurement of nursing resource structures as well as outcomes and processes sensitive to the impact of nursing care. However, successful implementation of these measures on a national scale requires the availability of a single source of standardized technical specifications.

**The Nursing-Sensitive Care Performance Measures: An Initial Set**

The value and benefit of using multiple measures as a set to obtain a robust picture of performance and quality of care is recognized. Measure sets commonly have a disease (e.g., diabetes), or condition (e.g., acute myocardial infarction) focus. Generally, measures are designed to look at structure, processes and outcomes of care related to these foci. However, the nursing sensitive care measure set represents a unique approach in assessing quality of care. Nurses provide a critical role in the care of hospitalized patients. Quantifying the effect that nurses and nursing interventions have on the quality of care processes, and on patient outcomes, has become increasingly important to support evidence-based staffing plans, understand the impact of nursing shortages and optimize care outcomes. This initial measure set was designed to include patient-centered outcome measures, nurse-centered intervention measures and system-centered measures. As such, this set provides unique measurement opportunities and challenges. The measures in the set do not address a single, common population. Rather, measurement targets include patients, nursing staff and system factors. Data are derived from multiple sources such as surveys, patient administrative databases and human resource records. Health care organizations will need to carefully examine the criteria for each measure “population” and determine reliable, consistent data collection options. Over time, the collection of data for these measures will enhance the available evidence and understanding of the relationship between nursing related system (structural) characteristics and patient care processes and outcomes at your organization. The use of standardized specifications for these measures will provide the groundwork for future inter-organizational comparisons as well as intra-organizational comparisons over time.
PHASE 1 Development of the Nursing-Sensitive Care Performance Measure Implementation Guide: A Collaborative Effort

A Joint Commission proposal to develop an implementation guide with standardized technical specifications for these measures was accepted for funding by the Robert Wood Johnson Foundation and the project was implemented in October 2004. The Joint Commission has gained extensive experience and expertise in the development, specification, testing and implementation of performance measures over the past 20 years.

This project was based on collaborative efforts among various stakeholders. The major objectives of developing a Technical Implementation Guide of standardized specifications included:

2. Creation of standardized specifications across the nursing-sensitive care performance measures.
3. Facilitation of uniform implementation of performance measures by interested health care organizations.
4. Promotion of national implementation of the nursing-sensitive care measures.
5. Exploration of seamless data collection through the use of the electronic medical record.

The development of this implementation guide with standardized specifications would not have been possible without the support and collaboration of the endorsed measure developers who served as part of a Technical Advisory Panel (TAP) providing advice and guidance for this project. The guide consolidated individual measure specifications, presenting them in uniform formats, and provides a centralized data dictionary and glossary of terms.

Finalizing the Technical Specifications For National Implementation

The Implementation Guide for the NQF Endorsed Nursing-Sensitive Care Performance Measures was reviewed for utility and feasibility by a random sample of volunteer hospitals. Pilot site comments were obtained through written survey, focus group conference calls, and onsite visits. Specifications were also reviewed by several electronic medical record vendors with acute care (hospital) applications, as well as performance measurement systems active in the Joint Commission’s ORYX® initiative. Based on TAP recommendations and pilot site, system and vendor input, the final revisions were completed in fall, 2005. Therefore, the completed specifications initially released in February 2006 were based on information from multiple sources including: the measure developers, the TAP, electronic health record vendors, performance measurement systems and pilot test sites.
PHASE 2 Comprehensive Testing of the Nursing-Sensitive Care Performance Measures

In January 2007, The Joint Commission received funding from the Robert Wood Johnson Foundation to test the implementation of the National Quality Forum (NQF) Endorsed Nursing-Sensitive Care (NSC) Performance Measure Set in a group of volunteer hospitals. During the 24 month period, in keeping with defined project activities and timeframes, the project staff:

- Convened a Technical Advisory Panel (TAP)
- Engaged the Joint Commission’s Nursing Advisory Council (NAC)
- Updated the Technical Specifications and Implementation Guide for the NQF Endorsed Nursing-Sensitive Care Performance Measures
- Recruited and enrolled test sites
- Developed and provided site training
- Developed an electronic data entry and transmission software for the pilot test
- Initiated and completed data collection and transmission
- Supported pilot test sites
- Conducted reliability test visits
- Administered a qualitative survey
- Developed and collected activity logs tracking resources
- Analyzed data and prepared reports

Project staff recruited and selected a stratified random sample of 54 pilot test sites consistent with the proposed project methodology. Site recruitment was initiated in May 2007 using multiple strategies including posting a notice on the Joint Commission website in May 2007 and via a list serve to all Joint Commission accredited organizations.

The Colorado Hospital Association (CHA), the 55th test site, had contacted the Joint Commission to explore the possibility of member hospitals participating in the test. This was in response to the Governor of Colorado issuing an Executive Order in March 2007 establishing a new Nurse Workforce and Patient Care Task Force. In follow-up to deliberations at the Colorado Capitol addressing nurse staffing issues, the Colorado Hospital Association (CHA) proposed establishing a task force to identify quality measures for patient care related to nursing in order to obtain meaningful data that could be publicly reported. Therefore, an additional 20 organizations under the umbrella of the Colorado Hospital Association volunteered to participate in the test.

A Technical Advisory Panel (TAP) was identified to provide advice with respect to project tools, materials and methodology, review the overall project analysis, and recommend potential modifications to the implementation guide for national implementation. An initial conference call with the TAP was held in May 2007 to welcome members, introduce the project, and inform them on activities completed and planned. In August 2007, an in-person meeting of the panel was held at Joint Commission Headquarters. Following an update on project activities, the balance of the day was focused on discussion of project evaluation strategies. Measurement outcomes
were discussed and refined. Measure developers also shared experiences and offered resources for extant analysis activities from active measurement initiatives where applicable. Joint Commission statistical staff participated in these discussions.

The Joint Commission’s Nursing Advisory Council (NAC) was utilized throughout the project as a reactor panel to review project findings. The NAC was informed of project progress and findings during their meetings in May and October 2007, and March, June, and September 2008. The multiple perspectives on the NAC provided insight and real world experience to the TAP respecting the perceived effectiveness of the measures as a set, the effect of the set in assessing and improving care, and the discrimination capabilities of the measure set.

In spring of 2007, each measure developer was contacted to inquire about and obtain any measure-specific changes since development of the implementation guide in 2005. These updates were added to the technical specifications for use in testing the set. The revised Implementation Guide for the NQF-Endorsed Nursing-Sensitive Care Performance Measures was distributed to all volunteer test hospitals in June 2007. Measure developers were contacted again in October 2008, so any measure updates that occurred during the testing period could be considered by the TAP in their final recommendations.

Site training was designed in multiple modules, over the course of the test period, following the framework for data collection. To support a phased-in approach to data collection, a schedule was developed based on data collection frequency and data source. Additionally, a series of conference calls were held to provide on-going support to organizations, as well as providing in-depth measure education. A representative of each measure developer was invited to serve as a guest expert for the respective discussions. Five initial training web cast/conference calls, and five training calls including measure developers were held between June 2007 and May 2008. A training manual was developed to act as a companion to the Implementation Guide and was distributed to all participant test sites.

An electronic tool for data entry and transmission was developed for site use during the test period. Sites were able to enter clinical data directly into the tool and upload administrative data. Sites received the tool and training in September 2007.

Pilot sites began the 12 month data collection period on August 1, 2007, and continued through July 31, 2008. Initially a July 1, 2007 start date was identified for data collection; however in response to site requests for additional start-up time, and to have a uniform data set between the initial 54 sites and Colorado Hospital Association (CHA) participating sites that joined in July 2007, the start date was adjusted to August, 2007.

In June 2008, pilot sites were asked to complete a qualitative survey using an on-line survey tool. Invitations were sent to all 74 sites that had initially enrolled in the project inviting them to participate in the survey. The survey was used to gather qualitative data respecting: perceived barriers and limitations to national implementation of the complete
measure set; staff effort and resource utilization to collect and transmit the required data relative to the derived benefits; gaps in knowledge between nursing-related measurement and quality of care; staff perceptions respecting the potential for this measure set to influence improvements in nursing care; and, patient quality outcomes.

To assist in understanding resource utilization for the project, including individual measures, each hospital was requested to complete an Activity Status Log at defined monthly intervals between February and July, 2008. The log included information such as total hours dedicated to specific activities, type of individuals involved in the project by activity, and activities by individual measure. The experience and lessons learned during the pilot project are of critical importance to the successful evaluation and implementation of the Nursing-Sensitive Care Performance Measures.

Twenty pilot sites were randomly selected for an on-site reliability assessment. Project staff completed 19 on-site reliability visits between April and August 2008. The first visit was used as a trial visit and one visit was not completed due to a last minute airline cancellation that could not be rescheduled within the needed timeframe.

From August through November 2008, the project staff analyzed data and prepared reports based on the reliability data, qualitative survey data, activity logs, and pilot site measure data in preparation for the November 12, 2008 TAP member meeting. At the meeting following a detailed discussion of each individual measure there was consensus among the TAP members to recommend that each of the measures move forward.

The measure set went through the NQF measure maintenance review process in the spring / summer of 2009. Eleven of the 15 measures were reviewed through this project including: Pressure Ulcer Prevalence; Patient Falls; Falls with Injury; Restraint Prevalence; Smoking Cessation for Acute Myocardial Infarction, Heart Failure, and Pneumonia; Skill Mix; Nursing Hours Per Patient Day; Voluntary Turnover; and the PES-NWI survey. The NQF Consensus Standards Approval Committee and Board approved continued endorsement of 8 measures including: Pressure Ulcer Prevalence; Patient Falls; Falls with Injury; Restraint Prevalence; Skill Mix; Nursing Hours Per Patient Day; Voluntary Turnover; and the PES-NWI survey. Smoking Cessation for Acute Myocardial Infarction, Heart Failure, and Pneumonia were approved for retirement. The Death Among Surgical Inpatients with Serious Treatable Complications measure was revised and endorsed in May 2008. The device related infection measures Urinary Catheter-Associated Urinary Tract Infections, Catheter-Associated Blood Stream Infection, and Ventilator-Associated Pneumonia measures are scheduled for review by the NQF at a later date.

The Implementation Guide for the NQF-Endorsed Nursing-Sensitive Care Performance Measures Version 2.0 includes those measures approved for continued endorsement and reflects updates to the guide as a result of the comprehensive testing.
Using the Technical Implementation Guide for the Nursing-Sensitive Care Performance Measures

This portion of the implementation guide provides a brief overview of the information contained within each section of the manual. It is intended for use as a quick reference to assist health care organizations and others in the implementation of the nursing-sensitive care performance measures. The sections of the manual are interrelated and are most useful when considered together.

Introduction - Framework
This section provides background information about the framework developed by the Nursing-Sensitive Care Performance Measures Steering Committee and reviewed by a three member Technical Advisory Panel under the auspices of the National Quality Forum (NQF) Consensus Development Process. It describes principles underlying framework development and provides a visual representation.

Section 1 – Data Dictionary
The Data Dictionary describes the record-level data elements required to capture and calculate individual measurements. It specifies those data elements that must be collected for each measure in the set.

Section 2 – Measure Information
This section provides a Measure Information Form (MIF) for each measure in the set. The MIF contains detailed information about the measure such as measure type (e.g., rate-based proportion versus continuous variable), population description (e.g., inclusions and exclusions) and required data elements.

Appendix A – Glossary of Terms
This section provides definitions for terms used in the measure set.

Appendix B – Overview of Measure Information Form and Flowchart Formats
For each measure in the nursing-sensitive care set listed in this guide, there is a Measure Information Form. This appendix explains each of the terms used on the Measure Information Form (MIF).

Appendix C – Resources
This appendix contains available resources to those using this manual.

Appendix D - Miscellaneous Tables
These tables contain clinical information to supplement the data element dictionary and provide additional details for data collection and abstraction.

Appendix E – Prevalence Study Methodology
This Appendix contains clinical information to supplement the data element dictionary and provide additional details for data collection and abstraction during the prevalence study.
Appendix F – Device Related Infection Measure Criteria
This Appendix contains clinical information to supplement the data element dictionary and provide additional details for data collection and abstraction of the device related infection measures.

Appendix G – PES-NWI Nurse Survey
This Appendix contains the PES-NWI nursing survey questionnaire.
Measure Set List and Descriptors

Nursing-Sensitive Care Performance Measures

1) Death Among Surgical Inpatients with Treatable Serious Complications
2) Pressure Ulcer Prevalence (Hospital-Acquired)
3) Restraint Prevalence (vest and limb)
4) Patient Falls
5) Falls with Injury
6) Catheter-Associated Urinary Tract Infection (CAUTI) Rate for Intensive Care Unit (ICU) Patients
7) Central Line Catheter-Associated Bloodstream Infection (CLABSI) Rate for Intensive Care Unit (ICU) and Neonatal Intensive Care Unit (NICU) Patients
8) Ventilator-Associated Pneumonia (VAP) Rate for Intensive Care Unit (ICU) and Neonatal Intensive Care (NICU) Patients
9) Skill Mix
10) Nursing Care Hours per Patient Day
11) Voluntary Turnover
12) Practice Environment Scale-Nursing Work Index (PES-NWI)
## Measure Set Descriptors

<table>
<thead>
<tr>
<th>Measure ID</th>
<th>Measure Type</th>
<th>Measure Population</th>
<th>Data Source</th>
<th>Unit of Analysis</th>
<th>Data Collection Frequency</th>
<th>Calculation Frequency</th>
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<tr>
<td>NSC 1</td>
<td>Surgical Deaths</td>
<td>Clinical (Incidence)</td>
<td>Patient</td>
<td>Medical Record</td>
<td>Hospital-level</td>
<td>Monthly</td>
</tr>
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<td>Pressure Ulcer Prevalence</td>
<td>Clinical (Prevalence)</td>
<td>Patient</td>
<td>Prevalence Survey Medical Record</td>
<td>Unit-level</td>
<td>Quarterly</td>
</tr>
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<td>NSC 3</td>
<td>Restraint Prevalence</td>
<td>Clinical (Prevalence)</td>
<td>Patient</td>
<td>Prevalence Survey Medical Record</td>
<td>Unit-level</td>
<td>Quarterly</td>
</tr>
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<td>Patient Falls</td>
<td>Clinical (Incidence)</td>
<td>Patient</td>
<td>Medical Record</td>
<td>Unit-level</td>
<td>Monthly</td>
</tr>
<tr>
<td>NSC 5</td>
<td>Falls with Injury</td>
<td>Clinical (Incidence)</td>
<td>Patient</td>
<td>Medical Record</td>
<td>Unit-level</td>
<td>Monthly</td>
</tr>
<tr>
<td>NSC 6</td>
<td>CAUTI</td>
<td>Clinical (Incidence)</td>
<td>Patient</td>
<td>Medical Record</td>
<td>Unit-level</td>
<td>Monthly</td>
</tr>
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<td>CLABSII</td>
<td>Clinical (Incidence)</td>
<td>Patient</td>
<td>Medical Record</td>
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<td>Monthly</td>
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<tr>
<td>NSC 8</td>
<td>VAP</td>
<td>Clinical (Incidence)</td>
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<td>Medical Record</td>
<td>Unit-level</td>
<td>Monthly</td>
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<td>NSC 9</td>
<td>Skill Mix</td>
<td>Administrative</td>
<td>Nursing Resources</td>
<td>Human Resources, Payroll</td>
<td>Unit-level</td>
<td>Monthly</td>
</tr>
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<td>NSC 10</td>
<td>Nursing Hours</td>
<td>Administrative</td>
<td>Nursing Resources</td>
<td>Medical Record Human Resources</td>
<td>Unit-level</td>
<td>Monthly</td>
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<tr>
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<td>Voluntary Turnover</td>
<td>Administrative</td>
<td>Nursing Resources</td>
<td>Human Resources, Payroll</td>
<td>Hospital-level</td>
<td>Monthly</td>
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<td>NSC 12</td>
<td>PES-NWI</td>
<td>Perception (Environment)</td>
<td>Nurses</td>
<td>Survey</td>
<td>Hospital-level</td>
<td>Annual</td>
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</table>

* Note: Measures may be analyzed at the unit level, however are publicly reported at the hospital level only.
Data Dictionary

Introduction

This section of the manual describes the data elements required to calculate category assignments and measurements for the nursing sensitive care performance measures. It includes information necessary for defining and formatting the data elements, as well as the allowable values for each data element. This information is intended to assist in processing data elements for national quality measures.

It is of primary importance that all hospitals using nursing sensitive care performance measures gather and utilize the data elements as defined in this section. This will ensure that the data are standardized and comparable across hospitals.

Certain general data elements are collected by the hospital and submitted for every patient that falls into selected initial patient populations. These data elements are considered “general” to each episode of care.

These data elements include:

- Admission Date
- Birthdate
- Hospital Patient Identifier
- Sex

Data elements that are general for every patient that fall into measures that are reported at time of discharge include:

- Admission Source
- Discharge Date
- Discharge Status
- ICD-9-CM Other Diagnosis Codes
- ICD-9-CM Other Procedure Codes
- ICD-9-CM Other Procedure Dates
- ICD-9-CM Principal Diagnosis Code
- ICD-9-CM Principal Procedure Code
- ICD-9-CM Principal Procedure Date
- Payment Source
- Point of Origin for Admission or Visit

Data elements that are general for every patient that falls into measures that are reported at the time of the event include:

- Date of Event
- Event Identifier
- Event Type
**Episode of Care**
An Episode of Care (EOC) is defined as the health care services given during a certain period of time, usually during a hospital stay (e.g., from the day of arrival or admission to the day of discharge).
For Joint Commission measure reporting, if a patient is transferred from an acute care hospital to another acute care hospital, which is within the same healthcare system and shares the same Joint Commission Health Care Organization Identifier (HCO ID), this should be abstracted as one episode of care.

**Data Integrity**

**Editing ‘Date’ and ‘Time’ Data Elements**
Performing simple edits between ‘date’ and ‘time’ data elements will help ensure data integrity.
- Dates must be recorded in the following format: MM-DD-YYYY.
  Example: July 4, 2006 would be recorded as 07-04-2006
- Time must be recorded in military time format.
  Example: 3:00 p.m. would be recorded as 15:00
  **Note:**
  00:00 = midnight. When converting 24:00 to 00:00 do not forget to change the date
  Example: Midnight or 24:00 on 11-24-2006 = 00:00 on 11-25-2006
- For times that include "seconds", remove the seconds and record the time as is.
  Example: 15:00:35 would be recorded as 15:00

**Editing Zero Values**
Verification mechanisms are necessary to assure that zero is the intended data value rather than an initialization value for those data elements which have an allowable value of zero (i.e., 0.0, 0000, 0).

**Missing and Invalid Data**
Each data element that is applicable for the calculation of each of the measures must be “touched” by the abstractor. While this is the expectation, it is recognized that in certain situations information may not be available (e.g., dates, times, codes, etc.). After due diligence in reviewing all allowable data sources within the data source, if the abstractor determines that a value is not documented, i.e. “missing,” or is unable to determine if a value is documented, the abstractor should select the “UTD - Unable to Determine,” value. The data elements **Admission Date, Discharge Date** and **Birthdate** require an actual date for submission into the data entry tool and “UTD” cannot be selected as an allowable value. For Yes/No values the allowable value “No” incorporates the “UTD” into the definition. For data elements containing more than two categorical values and for numerical data elements (i.e., dates, times, laboratory values, etc.), a “UTD” option is included as an allowable value and is classified in the same
category as not documented. Files that contain any invalid and/or missing data will be rejected.

**Interpreting Data Element Definitions and Allowable Values**
Every attempt has been made to comprehensively define the nursing-sensitive care performance measure data elements and allowable values in a manner that obviates the need for interpretation. If, after reviewing the General Abstraction Guidelines, the data element definition, including the notes and guidelines for abstraction, an abstractor cannot clearly assign an allowable value, refer to Resources, Appendix C for additional contact information.

**Interpretation of Data Dictionary Terms**
The measures in this set fall within three framework categories:
- patient-centered outcome measures;
- nursing-centered intervention measures; and
- system-centered measures.

The type and sources of data will vary significantly across these categories. However, regardless of the category of the measure, all data elements have been presented in a consistent format and have been standardized within the set wherever possible. Therefore, the consistent application of these data element specifications across health care organizations would build the foundation for national-level standardization of the nursing-sensitive measure set. This will support the use of this measure set for external comparison between organizations.

**Data Element Dictionary Terms**

**Data Element Name:** A short phrase identifying the data element.

**Collected For:** Identifies the measure(s) that utilize this data element or specifies that the data element is used for data transmission.

**Definition:** A detailed explanation of the data element.

**Suggested Data Collection Question:** A suggested wording for a data element question in a data abstraction tool.

**Format:**
- **Length =** number of characters or digits allowed for the data element
- **Type =** type of information the data element contains (i.e., numeric, alphanumeric, date, decimal, or time)
Occurs = the number of times the data element occurs in a single episode of care record

**Allowable Values:** A list of acceptable responses for this data element

**Notes for Abstraction:** Provided to assist abstractor in the selection of appropriate value for a data element

**Suggested Data Sources:** Source document from which data can be identified such as administrative or medical record. Some data elements also list excluded data sources that are unacceptable sources for collecting information.

**Guidelines for Abstraction:** Designed to assist abstractors in determining how a data element should be answered

Note: Element specific notes and guidelines should take precedence over the General Abstraction Guidelines.

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**General Abstraction Guidelines**

The General Abstraction Guidelines are a resource designed to assist abstractors in determining how a question should be answered. The abstractor should first refer to the specific notes and guidelines under each data element. These instructions should take precedence over the following General Abstraction Guidelines. All of the allowable values for a given data element are outlined, and notes and guidelines are often included which provide the necessary direction for abstracting a data element. It is important to utilize the information found in the notes and guidelines when entering or selecting the most appropriate answer.

**Medical Record Documentation**

The intent of abstraction is to use only documentation that was part of the medical record during the hospitalization (is present upon discharge) and that is present at the time of abstraction. There are instances where an addendum or late entry is added after discharge. This late entry or addendum can be used, for abstraction purposes, as long as it has been added within 30 days of discharge, unless otherwise specified in the data element. It is not the intent to have documentation added at the time of abstraction to ensure the passing of a measure.

Important Note: There are several data elements where abstraction of data from documentation dated/timed after discharge is restricted, and these exceptions are published on the respective data element pages of the data dictionary. Data element specific notes and guidelines always take precedence over the General Abstraction Guidelines.

All documentation in the medical record must be legible and must be timed, dated and authenticated. When abstracting a medical record, if a handwritten document is
determined to be not legible, other documentation should be reviewed in an attempt to obtain the answer. If no other source document is able to verify the handwritten documentation, only then is the abstractor to answer unable to determine from the medical record documentation, unless otherwise specified in the data element. Authentication may include written signatures, initials, computer key, or other codes. Data element information should be retrieved from the current medical record, covering the admission and discharge date, or reporting period for event measures being abstracted. Information ascertainable from previous history (e.g., failed trials of monotherapy) AND determined to be part of the current medical record may be used in abstraction. For example, if the patient had previously failed three or more trials of monotherapy and this information is available in the current chart being abstracted (e.g., a note made in the continuing care plan), this information should be used. Previous history information used in abstraction should be information that was part of the medical record during hospitalization, when care was being delivered. The medical record must be abstracted as documented (taken at "face value"). When the value documented is obviously in error (not a valid format/range or outside of the parameters for the data element) and no other documentation is found that provides this information, the abstractor should select “UTD.” Example:

- Patient expires on 02-12-20XX and documentation indicates the Event Date was 03-12-20XX. Other documentation in the medical record supports the date of death as being accurate. Since the Event Date is after the Discharge Date (death), it is outside of the parameter of care and the abstractor should select “UTD.”

Note: Hospitals should use abbreviations according to their policy. Frequently flow sheets or other documentation contain a 'key or legend' that explains what the abbreviation or symbol stands for, especially if unique to that facility.

**Suggested Data Sources**

- Suggested Data Sources are listed in alphabetical order, NOT priority order, unless otherwise specified.

- Suggested Data Sources are designed to provide guidance to the abstractor as to the locations/sources where the information needed to abstract a data element will likely be found. However, the abstractor is not limited to these sources for abstracting the information and is encouraged to review the entire medical record unless otherwise specified in the data element.

- In the course of abstraction, if conflicting information is found in a source other than the suggested data sources, and use of this source is not restricted, consider using this information if it more accurately answers the question, unless otherwise specified.

Example:
The nursing notes state the patient experienced a fall, and the incident report states the fall occurred while in the radiology department. The notes from radiology, while not listed as a suggested data source, more accurately describe the fall location and should be used for identifying fall location when counting falls for a given unit.
If, after due diligence, the abstractor determines that a value is not documented or is not able to determine the answer value, the abstractor must select “Unable to Determine (UTD)” as the answer.

Hospitals often label forms and reports with unique names or titles. Suggested Data Sources are listed by commonly used titles; however, information may be abstracted from any source that is equivalent to those listed. Example:
If the “nursing admission assessment” is listed as a suggested source, an acceptable alternative might be titled “nurses initial assessment” or “nursing data base.”

Note:
Element specific notes and guidelines should take precedence over the General Abstraction Guidelines.

Inclusions/Exclusions
- Inclusions are “acceptable terms” that should be abstracted as positive findings (e.g., “Yes”).
- Inclusion lists are limited to those terms that are believed to be most commonly used in medical record documentation. The list of inclusions should not be considered all-inclusive, unless otherwise specified in the data element.
- Exclusions are “unacceptable terms” that should be abstracted as negative findings (e.g., “No”)
- Exclusion lists are limited to those terms an abstractor may most frequently question whether or not to abstract as a positive finding for a particular element (e.g., “restraints” that are only associated with medical, dental, diagnostic, or surgical procedures and is based on standard practice for the procedure (sometimes referred to as treatment restraints) should not be counted as a restraint for the prevalence study). The list of exclusions should not be considered all-inclusive, unless otherwise specified in the data element.
- When both an inclusion and exclusion are documented in a medical record, the inclusion takes precedence over the exclusion and would be abstracted as a positive finding (e.g., answer “Yes”), unless otherwise specified.

Physician/Advanced Practice Nurse/Physician Assistant Documentation
- Advanced Practice Nurse (APN, APRN) titles may vary between state and clinical specialties. Some common titles that represent the advanced practice nurse role are:
  - Nurse Practitioner (NP)
  - Certified Registered Nurse Anesthetist (CRNA)
  - Clinical Nurse Specialist (CNS)
  - Certified Nurse Midwife (CNM)
- When a physician/advanced practice nurse/physician assistant (physician/APN/PA) signs a form or report (e.g., ED sheet with triage and nursing information and a physician/APN/PA has signed somewhere on the form), information on that form/report should be considered physician/APN/PA documentation.
• “Rubber” stamped physician/advanced practice nurse/physician assistant (physician/APN/PA) signatures are not acceptable on any document within the medical record. Handwritten, electronic signatures, facsimiles of original written or electronic signatures are acceptable.
• Resident and intern notes should be considered physician documentation. Medical student notes must be co-signed by a physician.

Pharmacist Documentation
Pharmacist titles may vary. Some common titles that represent the pharmacist role are:
• Doctor of Pharmacy (Pharm.D. or D.Ph.)
• Registered Pharmacist (R.Ph.)

Medications:
• Whether or not a medication has been administered to a patient is often clear when using medical record sources such as medication administration records, but documentation can be more ambiguous in other sources, namely, physician orders, ED records, and ambulance records. To make a determination using these sources, use the following criteria:
  o For EHRs only accept documentation that reflects the actual administration of the medication in the context of the chart.
  o If a medication in the physician orders has been initialed and signed off with a time, do NOT presume that the medication was administered. The documentation MUST indicate that the medication was actually given.
  o For an ED or ambulance record, there is no need for documentation indicating that the medication was actually given.
  • Example:
    If the ED or ambulance record reflects “ASA 325mg po 13:00” and no other documentation exists indicating that the medication was actually given (e.g., “given” or “administered”), this is acceptable documentation to abstract.

Diagnostic/Laboratory Tests
Whether or not a diagnostic or laboratory test has been done is usually clear when using medical record sources such as diagnostic test reports, laboratory reports, or progress notes (where a physician might note test findings), but documentation can be more ambiguous in other sources, namely, physician orders and ED records. To make a determination using these sources, use the following criteria:
• If a test in the physician orders has been initialed and signed off with a time, do NOT presume that the test was done. The documentation MUST indicate that the test was actually done (e.g., accompanied by a word such as “done”).
• For an ED record, there is no need for explicit documentation indicating that the test was actually done. For example, if an ED record notes “Lipid profile,” and this is followed by a signature and/or a time, the abstractor should presume the test was performed.
## Data Elements by Measure List

### NSC-1 Death Among Surgical Inpatients with Treatable Serious Complications
- Admission Date
- Admission Type
- Birthdate
- Diagnosis-Related Groups
- Discharge Date
- Discharge Status
- Hospital Patient Identifier
- ICD-9-CM Other Diagnosis Codes
- ICD-9-CM Other Procedure Codes
- ICD-9-CM Other Procedure Dates
- ICD-9-CM Principal Diagnosis Code
- ICD-9-CM Principal Procedure Code
- ICD-9-CM Principal Procedure Date
- Major Diagnostic Category (MDC)
- Payment Source
- Point of Origin for Admission or Visit
- Sex

### NSC-2 Pressure Ulcer Prevalence (Hospital-Acquired)
- Admission Date
- Birthdate
- Hospital Patient Identifier
- Observed Pressure Ulcer - Hospital Acquired
- Observed Pressure Ulcer – Category/stage
- Observed Pressure Ulcer(s)
- Sex
- Type of Unit

### NSC-3 Restraint Prevalence (vest and limb)
- Admission Date
- Birthdate
- Hospital Patient Identifier
- Physical Restraint
- Prevalence Study Date
- Sex
- Type of Restraint
- Type of Unit

### NSC-4 Patient Falls
- Admission Date
- Birthdate
- Date of Event
- Event Identifier
- Event Type
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### NSC-11 Voluntary Turnover

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#### NSC-11 Voluntary Turnover

- **Employed APNs**
- **Employed LPN/LVNs**
- **Employed RNs**
- **Employed UAP**

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<tr>
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<th>Separations APN</th>
<th>Separations LPN /LVN</th>
<th>Separations UAP</th>
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### NSC-12 Practice Environment Scale – Nursing Work Index

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<tr>
<td>PES-NWI Administration Listens and Responds</td>
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<td>PES-NWI Advancement Opportunities</td>
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<td>PES-NWI Career Development</td>
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<td>PES-NWI Chief Nursing Officer Authority</td>
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<td>PES-NWI Chief Nursing Officer Visibility</td>
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<td>PES-NWI Collaboration</td>
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<td>PES-NWI Continuing Education</td>
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<td>PES-NWI Continuity of Patient Assignments</td>
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<td>PES-NWI Enough Nurses for Quality Care</td>
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<td>PES-NWI Enough Staffing</td>
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<td>PES-NWI Nurse and Physician Relationships</td>
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<td>PES-NWI Nurse and Physician Teamwork</td>
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<td>PES-NWI Nursing Administrators Consult</td>
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<td>PES-NWI Staff Nurses Hospital Governance</td>
</tr>
<tr>
<td>PES-NWI Supervisors Learning Experiences</td>
</tr>
<tr>
<td>PES-NWI Supportive Supervisory Staff</td>
</tr>
<tr>
<td>PES-NWI Time to Discuss Patient Problems</td>
</tr>
<tr>
<td>Survey Date</td>
</tr>
<tr>
<td>Survey Distribution Date</td>
</tr>
<tr>
<td>Total Number of Nurses Surveyed</td>
</tr>
<tr>
<td>Total Number of Surveys</td>
</tr>
<tr>
<td>Type of Unit</td>
</tr>
</tbody>
</table>
Alphabetical Data Dictionary

The General Abstraction Guidelines explain the different sections of the data element definitions and provide direction for common questions and issues that arise in medical record abstraction. Instructions in the specific data elements in this Data Dictionary should **ALWAYS** supersede those found in the General Abstraction Guidelines.

<table>
<thead>
<tr>
<th>Element Name</th>
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</tr>
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<tbody>
<tr>
<td>Admission Date</td>
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<tr>
<td>Central Line Days – NICU</td>
<td>NSC 7.2</td>
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<td>Diagnosis-Related Groups</td>
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</tr>
<tr>
<td>Employed LPN/LVNs</td>
<td>NSC 11.2</td>
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<td>Hospital Patient Identifier</td>
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<td>ICD-9-CM Other Diagnosis Codes</td>
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<td>ICD-9-CM Other Procedure Codes</td>
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<td>ICD-9-CM Principal Procedure Code</td>
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<td>Location</td>
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<tr>
<td>Observed Pressure Ulcer – Category/stage</td>
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<td>PES-NWI Adequate Support Services</td>
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<td>PES-NWI Administration Listens and Responds</td>
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<td>PES-NWI Advancement Opportunities</td>
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<td>PES-NWI Chief Nursing Officer Visibility</td>
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<td>PES-NWI Continuity of Patient Assignments</td>
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<td>PES-NWI Enough Staffing</td>
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<td>PES-NWI Nurse and Physician Relationships</td>
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<td>PES-NWI Nurse and Physician Teamwork</td>
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<td>PES-NWI Nurse Manager and Leader</td>
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<td>PES-NWI Nurse Manager Backs up Staff</td>
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<td>PES-NWI Nurses Are Competent</td>
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<td>PES-NWI Nursing Administrators Consult</td>
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<td>PES-NWI Nursing Diagnosis</td>
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<tr>
<td>PES-NWI Participation in Policy Decisions</td>
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<td>PES-NWI Patient Care Plans</td>
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<td>PES-NWI Philosophy of Nursing</td>
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<td>PES-NWI Preceptor Program</td>
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<td>PES-NWI Quality Assurance Program</td>
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<td>PES-NWI Supportive Supervisory Staff</td>
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<tr>
<td>PES-NWI Time to Discuss Patient Problems</td>
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<tr>
<td>Physical Restraint</td>
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<td>Point of Origin for Admission or Visit</td>
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<td>Prevalence Study Date</td>
<td>NSC 2, 3</td>
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<td>Reason for Separation</td>
<td>NSC 11.1, 11.2, 11.3</td>
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<td>Source Numbers</td>
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<tr>
<td>RN Hours [Employee]</td>
<td>NSC 9.1, 9.2, 9.3, 9.4, 10.1, 10.2</td>
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<tr>
<td>Separations APN</td>
<td>NSC 11.1</td>
</tr>
<tr>
<td>Separations LPN /LVN</td>
<td>NSC 11.2</td>
</tr>
<tr>
<td>Separations UAP</td>
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<tr>
<td>Separations RN</td>
<td>NSC 11.1</td>
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<td>Sex</td>
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<td>Survey Distribution Date</td>
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</tr>
<tr>
<td>Total Number of Nurses Surveyed</td>
<td>NSC 12</td>
</tr>
<tr>
<td>Total Number of Surveys</td>
<td>NSC 12</td>
</tr>
<tr>
<td>Type of Restraint</td>
<td>NSC 3</td>
</tr>
<tr>
<td>Type of Unit</td>
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<tr>
<td>UAP Hours [Contract/Agency]</td>
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<td>UAP Hours [Employee]</td>
<td>NSC 9.1, 9.2, 9.3, 9.4, 10.2</td>
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<tr>
<td>Umbilical Catheter Days</td>
<td>NSC 7.3</td>
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<tr>
<td>Ventilator Days</td>
<td>NSC 8.1, 8.2</td>
</tr>
<tr>
<td>Year</td>
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</tr>
</tbody>
</table>
Data Element Name:  
Admission Date

Collected For:  
NSC 1, 2, 3, 4, 5, 6, 7.1, 7.2, 7.3, 8.1, 8.2

Definition:  
The month, day, and year of admission to acute inpatient care.

Suggested Data Collection Question:  
What is the date the patient was admitted to acute inpatient care?

Format:  
Length:  10 – MM-DD-YYYY (includes dashes)
Type:  Date
Occurs:  1

Allowable Values:  
MM =  Month (01-12)
DD =  Day (01-31)
YYYY =  Year (2001 – Current Year)

Notes for Abstraction:  
• The intent of this data element is to determine the date that the patient was actually admitted to acute inpatient care. Because this data element is critical in determining the population for all measures, the abstractor should NOT assume that the claim information for the admission date is correct. If the abstractor determines through chart review that the date is incorrect, for purposes of abstraction, she/he should correct and override the downloaded value.
• A patient of a hospital is considered an inpatient upon issuance of written doctor’s orders to that effect. (Refer to the Medicare Claims Processing Manual, Chapter 3, Section 40.2.2.)
• For patients who are admitted to Observation status and subsequently admitted to acute inpatient care, abstract the date that the determination was made to admit to acute inpatient care and the order was written. Do not abstract the date that the patient was admitted to Observation.
• For patients that are admitted for surgery and/or a procedure, if the admission order states the date the orders were written and they are effective for the surgery/procedure date, then the date of the surgery/procedure would be the admission date. If the medical record reflects that the admission order was written prior to the actual date the patient was admitted and there is no reference to the date of the
surgery/procedure, then the date the order was written would be the admission date.

**Suggested Data Sources:**

**PRIORITY ORDER FOR THESE SOURCES**
- Physician orders
- Face Sheet
- UB-04, Field Location: 12

**Guidelines for Abstraction:**

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>None</td>
<td>• Admit to observation</td>
</tr>
<tr>
<td></td>
<td>• Arrival date</td>
</tr>
</tbody>
</table>
**Data Element Name:** Admission Type

**Collected For:** NSC-1

**Definition:** The code indicating priority/type of admission.

**Suggested Data Collection Question:** What was the priority/type of admission?

**Format:**
- **Length:** 1
- **Type:** Alphanumeric
- **Occurs:** 1

**Allowable Values:**

1. **Emergency**
   - The patient requires immediate medical intervention as a result of severe, life threatening, or potentially disabling conditions.

2. **Urgent**
   - The patient requires immediate attention for the care and treatment of a physical or mental disorder.

3. **Elective**
   - The patient's condition permits adequate time to schedule the services.

4. **Newborn**
   - Use of this code necessitates the use of special Source of Admission/Point of Origin codes -- see data element Point of Origin for Admission or Visit.

5. **Trauma Center**
   - Visit to a trauma center/hospital as licensed or designated by the state or local government authority authorized to do so, or as verified by the American College of Surgeons and involving a trauma activation.

9. **Information not available**

**Notes for Abstraction:** If unable to determine admission type, select “9.”

**Suggested Data Sources:**
- Emergency department record
- Face sheet
- History and physical
- Progress notes
- UB-04, Field Location: 14
**Guidelines for Abstraction:**

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<thead>
<tr>
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</thead>
<tbody>
<tr>
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<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: *Birth Weight*

Collected For: NSC-7.2, 7.3, 8.2

Definition: The weight (in grams) of a neonate at the time of delivery.

**Note:**
- 453.5 grams = 1 pound
- 28.35 grams = 1 ounce

It is recommended that each system provide the ability to enter birth weight in either grams or pounds. However, all birth weights must be converted to grams prior to indicator calculation.

Suggested Data Collection Question: What was the weight of the neonate at delivery?

Format:
- **Length:** 4 or UTD
- **Type:** Alphanumeric
- **Occurs:** 1

Allowable Values: 150 through 8165 grams
- UTD = Unable to Determine

**Note:**
When converting from pounds and ounces to grams, do not round to the nearest pound before converting the weight to grams. Round to the nearest whole number after the conversion to grams.

Notes for Abstraction:
- Birth weights less than 150 grams need to be verified that the baby was live born and for data quality purposes.
  Birth weights greater than 8165 grams need to be verified for data quality.
- If the birth weight is unable to be determined from medical record documentation, enter UTD.
- The medical record must be abstracted as documented (taken at “face value”). When the value documented is not a valid number/value per the definition of this data element and no other documentation is found that provides this information, the abstractor should select “UTD.”
  Example:
  Documentation indicates the *Birth Weight* was 0 grams. No other documentation in the medical record provides a valid value. Since the *Birth Weight* is not a valid value,
Notes for Abstraction continued:  the abstractor should select “UTD.”

Note:
Transmission of a case with an invalid value as described above will be rejected from the Joint Commission’s Data Warehouse. Use of “UTD” for Birth Weight allows the case to be accepted into the warehouse.

Suggested Data Sources:
- Delivery record
- History and physical
- Nursing notes
- Nursery record
- Progress notes

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
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</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
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</tbody>
</table>
Data Element Name: *Birthdate*

Collected For: NSC 1, 2, 3, 4, 5, 6, 7.1, 7.2, 7.3, 8.1, 8.2

Definition: The month, day, and year the patient was born.

**Note:**
Patient's age (in years) is calculated by *Admission Date* minus *Birthdate*. The algorithm to calculate age must use the month and day portion of admission date and birthdate to yield the most accurate age.

Suggested Data Collection Question: What is the patient's date of birth?

Format:
- **Length:** 10 – MM-DD-YYYY (includes dashes)
- **Type:** Date
- **Occurs:** 1

Allowable Values:
- **MM** = Month (01-12)
- **DD** = Day (01-31)
- **YYYY** = Year (1880-Current Year)

Notes for Abstraction: Because this data element is critical in determining the population for all measures, the abstractor should NOT assume that the claim information for the birthdate is correct. If the abstractor determines through chart review that the date is incorrect, she/he should correct and override the downloaded value. If the abstractor is unable to determine the correct birthdate through chart review, she/he should default to the date of birth on the claim information.

Suggested Data Sources:
- Emergency department record
- Face sheet
- Registration form
- UB-04, Field Location: 10

Guidelines for Abstraction:

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<tbody>
<tr>
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</table>
Data Element Name: Central Line Days – ICU

Collected For: NSC 7.1

Definition: Any day that a patient has a central line in place at the time the count is done. A patient with multiple central lines in place on a given day should be counted as one central line day. This daily count is aggregated / summed across the days of the month to provide the total number of central line days for the month for each individual ICU Location.

Suggested Data Collection Question: What is the total number of central line days for this ICU location for the month?

Format: Length: 5
Type: Alphanumeric
Occurs: 1 per strata (One aggregate count is expected for each report stratum or birth weight category)

Allowable Values: 0 – 99999

Notes for Abstraction:
- Central line days should be counted in a consistent manner (e.g., at the same time each day).
- A separate Central Line Days total is collected for each ICU Location

Suggested Data Sources:
- Direct observation
- Nursing notes
- Progress notes
- Radiographic record showing the catheter tip location

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
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</thead>
<tbody>
<tr>
<td>Peripherally inserted central line venous catheters (PICC)</td>
<td>Peripheral venous catheters (short)</td>
</tr>
<tr>
<td>Tunneled central line venous catheters</td>
<td>Peripheral arterial catheters</td>
</tr>
<tr>
<td>Nontunneled central venous catheters</td>
<td>Midline catheters</td>
</tr>
<tr>
<td>Totally implantable catheters: implanted in subclavian or internal</td>
<td>Pacemaker wires and other non-infusion devices inserted into central blood vessels or the heart are not considered central lines</td>
</tr>
<tr>
<td>jugular vein</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>Femoral lines</td>
<td></td>
</tr>
<tr>
<td>Pulmonary artery catheters when used for infusion</td>
<td></td>
</tr>
</tbody>
</table>
Data Element Name:  *Central Line Days – NICU*

Collected For:  NSC 7.2

Definition:  Any day that a neonate has a central line in place at the time the count is done. A patient with multiple central lines in place on a given day should be counted as one central line day. This daily count is aggregated / summed across the days of the month to provide the total number of central line days for the month for each birth weight category.

Suggested Data Collection Question:  What is the total number of central line days in the NICU for this Birth weight category for the month?

Format:  
- Length:  5
- Type:  Numeric
- Occurs:  1 per strata (One aggregate count is expected for each report stratum or birth weight category)

Allowable Values:  0 - 99999

Notes for Abstraction:
- Central line days should be counted in a consistent manner (e.g., at the same time each day).
- A patient with a central line AND an umbilical catheter should be counted as having one *umbilical catheter day*.
- A separate central line count is collected for each birth weight category

Suggested Data Sources:
- Direct Observation
- Nursing notes
- Operative record
- Progress notes
- Radiographic record showing the catheter tip location

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
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<tbody>
<tr>
<td>• Peripherally inserted central venous catheters (PICC)</td>
<td>• Peripheral venous catheters (short)</td>
</tr>
<tr>
<td>• Tunneled central venous catheters</td>
<td>• Peripheral arterial catheters</td>
</tr>
<tr>
<td>• Nontunneled central venous catheters</td>
<td>• Midline catheters</td>
</tr>
<tr>
<td>• Totally implantable catheters: implanted in subclavian or internal</td>
<td>• Pacemaker wires and other non-infusion devices inserted into the central blood vessels or the heart</td>
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<tr>
<td>jugular vein</td>
<td>are not considered central lines</td>
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<tr>
<td>femoral lines</td>
<td></td>
</tr>
<tr>
<td>pulmonary artery catheters when used for infusion</td>
<td></td>
</tr>
</tbody>
</table>
Data Element Name: Date of Event

Collected For: NSC 4, 5, 6, 7.1, 7.2, 7.3, 8.1, 8.2

Definition: The date the associated event type occurred.

Suggested Data Collection Question: What is the date of the associated event type occurred?

Format: Length: 10 – MM-DD-YYYY (includes dashes)
Type: Date
Occurs: 5

Allowable Values: MM = Month (01-12)
DD = Day (01-31)
YYYY = Year (2001 – Current Year)

Notes for Abstraction:

- For infection events use the date the first clinical evidence of infection appeared or the date the specimen used to make the diagnosis was collected, whichever comes first.
- When the date of a positive culture or other laboratory test is used as the infection date, record the date the specimen was collected rather than the date the result was reported by the laboratory.
- When an infection related to the patient’s stay in the ICU/NICU becomes evident within 48 hours after the patient’s discharge from the ICU/NICU, record the date the patient was transferred or discharged from the ICU/NICU as the infection date.
- Record the date using the format: mm, dd, yyyy where mm dd yyyy are the month, day and year.

Suggested Data Sources:

- Event Reports
- Incident Reports
- Laboratory slips
- Nursing notes
- Progress notes
- Variance Reports

Guidelines for Abstraction:

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</tr>
</tbody>
</table>
Data Element Name: Device

Collected For: NSC 6, 7.1, 7.2, 7.3, 8.1, 8.2

Definition: Documentation that the patient had an indwelling urinary catheter, a central line, an umbilical catheter or was on a ventilator.

Suggested Data Collection Question: Did the patient have an indwelling urinary catheter, central line, umbilical catheter or ventilator in place at the time of or during the 48 hour period before the Date of Event?

Format: Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:
1 Central line
2 Indwelling urinary catheter (urethral)
3 Umbilical catheter
4 Ventilator
5 UTD

Notes for Abstraction:
- Do not count central lines/umbilical catheters that were not in place within 48 hours of the event
- Do not count ventilators that were not in place within 48 hours of the event
- Do not count urinary catheters that were not in place within 48 hours of the event

Suggested Data Sources:
- Laboratory slips
- Nursing Notes
- Progress notes
- Respiratory therapy notes
## Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Central Line:</strong></td>
<td><strong>Central Line:</strong></td>
</tr>
<tr>
<td>- Peripherally inserted central venous catheters (PICC)</td>
<td>- Peripheral venous catheters (short)</td>
</tr>
<tr>
<td>- Tunneled central venous catheters</td>
<td>- Peripheral arterial catheters</td>
</tr>
<tr>
<td>- Nontunneled central venous catheters</td>
<td>- Midline catheters</td>
</tr>
<tr>
<td>- Totally implantable catheters: implanted in subclavian or internal jugular vein</td>
<td>- Pacemaker wires and other non-infusion devices inserted into the central blood vessels or the heart are <strong>not</strong> considered central lines</td>
</tr>
<tr>
<td>- Femoral lines</td>
<td></td>
</tr>
<tr>
<td>- Pulmonary artery catheters when used for infusion</td>
<td></td>
</tr>
<tr>
<td>- Umbilical catheters inserted through the umbilical artery/vein in NICU patients</td>
<td></td>
</tr>
<tr>
<td><strong>Indwelling Urinary Catheter (Urethral):</strong></td>
<td></td>
</tr>
<tr>
<td>- A drainage tube that is inserted into the urinary bladder through the urethra, is left in place, and is connected to a closed collection system; also called a Foley catheter.</td>
<td>- Do not count straight in–and–out catheters or catheters not inserted into the urinary bladder through the urethra.</td>
</tr>
<tr>
<td><strong>Ventilator:</strong></td>
<td></td>
</tr>
<tr>
<td>- Lung expansion device to assist or control respiration continuously through a tracheostomy or by endotracheal intubation</td>
<td>- Lung expansion devices such as intermittent positive pressure breathing airway pressure (CPAP, hypoCPAP) are not considered ventilators unless delivered via tracheostomy or endotracheal intubation (e.g., ET-CPAP).</td>
</tr>
</tbody>
</table>
Data Element Name: Diagnosis-Related Groups

Collected For: NSC-1

Definition: An inpatient classification scheme that categorizes patients who are medically related with respect to diagnosis and treatment and who are statistically similar in their lengths of stay from The International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM).

Suggested Data Collection Question: What was the assigned diagnosis-related group for this record?

Format:

<table>
<thead>
<tr>
<th>Length</th>
<th>Type</th>
<th>Occurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Alphanumeric</td>
<td>1</td>
</tr>
</tbody>
</table>

Allowable Values: Any valid ICD-9-CM Diagnosis-Related Group code

Notes for Abstraction: None

Suggested Data Sources:
- Face sheet
- UB-92

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
**Data Element Name:** Discharge Date

**Collected For:** NSC-1

**Definition:** The month, day, and year the patient was discharged from acute care, left against medical advice, or expired during this stay.

**Suggested Data Collection Question:** What is the date the patient was discharged from acute care, left against medical advice (AMA), or expired?

**Format:**

- **Length:** 10 – MM-DD-YYYY (includes dashes)
- **Type:** Date
- **Occurs:** 1

**Allowable Values:**

- MM = Month (01-12)
- DD = Day (01-31)
- YYYY = Year (2001 – Current Year)

**Notes for Abstraction:** Because this data element is critical in determining the population for many measures, the abstractor should NOT assume that the claim information for the discharge date is correct. If the abstractor determines through chart review that the date is incorrect, she/he should correct and override the downloaded value. If the abstractor is unable to determine the correct discharge date through chart review, she/he should default to the discharge date on the claim information.

**Suggested Data Sources:**

- Discharge summary
- Face sheet
- Nursing discharge notes
- Physician orders
- Progress notes
- Transfer note
- UB-04, Field Location: 6

**Guidelines for Abstraction:**

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: Discharge Status

Collected For: NSC-1

Definition: The place or setting to which the patient was discharged.

Suggested Data Collection Question: What was the patient’s discharge disposition?

Format:

<table>
<thead>
<tr>
<th>Length:</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type:</td>
<td>Alphanumeric</td>
</tr>
<tr>
<td>Occurs:</td>
<td>1</td>
</tr>
</tbody>
</table>

Allowable Values:

01 Discharged to home care or self care (routine discharge)

Usage Note: Includes discharge to home; jail or law enforcement; home on oxygen if DMS only; any other DMS only; group home, foster care, and other residential care arrangements; outpatient programs, such as partial hospitalization or outpatient chemical dependency programs; assisted living facilities that are not state-designated.

02 Discharged/transferred to a short term general hospital for inpatient care

03 Discharged/transferred to skilled nursing facility (SNF) with Medicare certification in anticipation of skilled care

Usage Note: Medicare-indicates that the patient is discharged/transferred to a Medicare certified nursing facility. For hospitals with an approved swing bed arrangement, use Code 61 Swinging Bed. For reporting other discharges/transfers to nursing facilities, see 04 and 64.

04 Discharged/transferred to an intermediate care facility (ICF)

Usage Note: Typically defined at the state level for specifically designated intermediate care facilities. Also used to designate patients that are discharged/transferred to a nursing facility with neither Medicare nor Medicaid certification and for discharges/transfers to state designated Assisted Living Facilities.

05 Discharged/transferred to a designated cancer center or children’s hospital

Usage Note: Transfers to non-designated cancer hospitals should use Code 02. A list of (National Cancer Institute) Designated Cancer Centers can be found at HHTThttp://www3.cancer.gov/cancercenters/centerslist.htmlTTHH
Allowable Values continued:

06 Discharged/transferred to home under care of organized home health service organization in anticipation of covered skilled care
   Usage Note: Report this code when the patient is discharged/transferred to home with a written plan of care (tailored to the patient’s medical needs) for home care services.

07 Left against medical advice or discontinued care

20 Expired

43 Discharged/transferred to a federal health care facility
   Usage Note: Discharges and transfers to a government operated health care facility such as a Department of Defense hospital, a Veteran’s Administration hospital or a Veteran’s Administration nursing facility. To be used whenever the destination at discharge is a federal health care facility, whether the patient resides there or not.

50 Hospice - home

51 Hospice - medical facility (certified) providing hospice level of care

61 Discharged/transferred to hospital-based Medicare approved swing bed
   Usage Note: Medicare-used for reporting patients discharged/transferred to a SNF level of care within the hospital's approved swing bed arrangement.

62 Discharged/transferred to an inpatient rehabilitation facility (IRF) including rehabilitation distinct part units of a hospital

63 Discharged/transferred to a Medicare certified long term care hospital (LTCH)
   Usage Note: For hospitals that meet the Medicare criteria for LTCH certification.

64 Discharged/transferred to a nursing facility certified under Medicaid but not certified under Medicare
Values continued:

65 Discharged/transferred to a psychiatric hospital or psychiatric distinct part unit of a hospital

66 Discharged/transferred to a Critical Access Hospital (CAH)

70 Discharged/transferred to another type of health care institution not defined elsewhere in this code list (See Code 05)

THE JOINT COMMISSION NOTE: If state assigned codes are used, it is the measurement system’s responsibility to crosswalk the code to one of the allowable values listed above for the purposes of ORYXPP®PP.

Note:
CMS and The Joint Commission are aware that there are additional UB-04 allowable values for this data element; however, they are not used for the national quality measures set at this time.

Notes for Abstraction:
- The values for Discharge Status are taken from the National Uniform Billing Committee (NUBC) manual which is used by the billing/HIM to complete the UB-04.
- Because this data element is critical in determining the population for many measures, the abstractor should NOT assume that the UB-04 value is what is reflected in the medical record. For abstraction purposes, it is important that the medical record reflect the appropriate discharge status. If the abstractor determines through chart review that the claim information discharge status is not what is reflected in the medical record, she/he should correct and override the downloaded value.
- It would be appropriate to work with your billing office to develop processes that can be incorporated to improve medical record documentation to support the appropriate discharge status and to ensure consistency between the claim information discharge status and the medical record.
Suggested Data Sources:
- Discharge instruction sheet
- Discharge summary
- Face sheet
- Nursing discharge notes
- Physician orders
- Progress notes
- Social service notes
- Transfer record
- UB-04, Field Location: 17

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refer to Appendix H, Table 2.5 Discharge Status Disposition.</td>
<td>None</td>
</tr>
</tbody>
</table>
**Data Element Name:** Employed APNs  
**Collected For:** NSC 11.1  
**Definition:** The total number of eligible advanced practice nurses employed on the last day of a month.

**Suggested Data Collection Question:** What was the total number of advance practice nurses employed on the last day of the month?

**Format:**
- **Length:** 5
- **Type:** Numeric
- **Occurs:** 1

**Allowable Values:** 0 - 99999

**Notes for Abstraction:**
- When a unit is permanently closed the last reported rate would be the last full month of service/care provided on that unit.

**Suggested Data Sources:**
- Human Resource employment records

**Guidelines for Abstraction:**

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time and part-time Advance practice nurses (APN) engaged in direct patient care positions or related nursing supervisory positions and positions for which an advanced (RN) nursing degree is a specific condition of hire</td>
<td>Advance practice nurse (APN) per diems, contractors, consultants, temporary agency, travelers, students or other non-permanent employees</td>
</tr>
</tbody>
</table>
Data Element Name: Employed LPN/LVNs

Collected For: NSC 11.2

Definition: The total number of eligible Licensed Practical / Licensed Vocational Nurses employed on the last day of the month.

Suggested Data Collection Question: What was the total number of Licensed Practical and Licensed Vocational Nurses employed on the last day of the month?

Format:

<table>
<thead>
<tr>
<th>Length</th>
<th>Type</th>
<th>Occurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Numeric</td>
<td>1</td>
</tr>
</tbody>
</table>

Allowable Values: 0 – 99999

Notes for Abstraction:
- When a unit is permanently closed the last reported rate would be the last full month of service/care provided on that unit.

Suggested Data Sources:
- Human resource employment records

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time and part-time Licensed Practical Nurses (LPN) and Licensed Vocational Nurses (LVN) engaged in direct patient care positions.</td>
<td>Licensed Practical Nurses (LPN) and Licensed Vocational Nurses (LVN) peri diems, contractors, consultants, temporary agency, travelers, students or other non-permanent employees.</td>
</tr>
</tbody>
</table>
**Data Element Name:** Employed RNs

**Collected For:** NSC 11.1

**Definition:** The total number of eligible Registered Nurses employed on the last day of the month.

**Suggested Data Collection Question:** What was the total number of Registered Nurses employed on the last day of the month?

**Format:**
- **Length:** 5
- **Type:** Numeric
- **Occurs:** 1

**Allowable Values:** 0 – 99999

**Notes for Abstraction:**
- When a unit is permanently closed the last reported rate would be the last full month of service/care provided on that unit.

**Suggested Data Sources:**
- Human resource employment records

**Guidelines for Abstraction:**

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time and part-time Registered Nurses (RN) engaged in direct patient care positions or related nursing supervisory positions and positions for which an RN nursing degree is a specific condition of hire.</td>
<td>Registered Nurse (RN) per diems, contractors, consultants, temporary agency, travelers, students or other non-permanent employees.</td>
</tr>
</tbody>
</table>
Data Element Name: Employed UAPs

Collected For: NSC 11.3

Definition: The total number of eligible Unlicensed Assistive Personnel (UAP) employed on the last day of the month.

Suggested Data Collection Question: What was the total number of UAP employed on the last day of the calendar month?

Format:

- Length: 5
- Type: numeric
- Occurs: 1

Allowable Values: 0 – 99999

Notes for Abstraction:
- When a unit is permanently closed the last reported rate would be the last full month of service/care provided on that unit.
- UAP are individuals trained to function in an assistive role to nurses in the provision of patient care, as delegated by and under the supervision of the registered nurse. Typical activities performed by UAPs may include (but are not limited to):
  - Taking vital signs
  - Bathing, feeding, or dressing patients
  - Assisting patient with transfers, ambulation, or toileting
- NOTE: In some states assistive nursing personnel may be licensed. For the purposes of this performance measure set, include these persons in the UAP category for calculation.

Suggested Data Sources:
- Human resource employment records

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Full-time and part-time UAP engaged in direct patient care positions.</td>
<td>• Per diems, contractors, consultants, temporary agency, travelers or other non-permanent employees.</td>
</tr>
<tr>
<td>• Nursing assistants</td>
<td>• Unit secretaries or clerks</td>
</tr>
<tr>
<td>Orderlies</td>
<td>Monitor technicians</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>Patient care technicians/assistants</td>
<td>Therapy assistants</td>
</tr>
<tr>
<td>Graduate nurse (not yet licensed) who have completed unit orientation</td>
<td>Student nurses who are fulfilling educational requirements</td>
</tr>
<tr>
<td></td>
<td>Sitters who either are not employed by the facility or who are employed by the facility, but are not providing typical UAP activities</td>
</tr>
</tbody>
</table>
Data Element Name:  *Event Identifier*

Collected For:  NSC 4, 5, 6, 7.1, 7.2, 7.3, 8.1, 8.2

Definition:  An identifier generated to uniquely identify this patient event. It is a fictitious identifier used to differentiate between individual events.

This identifier will not be derived from or related to information about the patient in such a way that it is possible to identify the patient via a review or manipulation of the data.

Suggested Data Collection Question:  Not applicable, this data element is not data entered.

Format:  
Length:  9  
Type:  Numeric  
Occurs:  1

Allowable Values:  Any valid positive number

Notes for Abstraction:  None

Suggested Data Sources:  Does not apply, generated by the user or data collection tool.

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name:  *Event Type*

Collected For:  NSC 4, 5, 6, 7.1, 7.2, 7.3, 8.1, 8.2

Definition:  The measure-related event being identified.

Suggested Data Collection Question:  What is the identified measure-related outcome?

Format:  

<table>
<thead>
<tr>
<th>Length</th>
<th>Type</th>
<th>Occurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Alphanumeric</td>
<td>1</td>
</tr>
</tbody>
</table>

Allowable Values:  

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>UTI</strong> – urinary tract infection</td>
</tr>
<tr>
<td>2</td>
<td><strong>PNEU</strong> - pneumonia</td>
</tr>
<tr>
<td>3</td>
<td><strong>BSI</strong> – bloodstream infection</td>
</tr>
<tr>
<td>4</td>
<td><strong>No infection</strong> events this month</td>
</tr>
<tr>
<td>5</td>
<td><strong>Fall</strong></td>
</tr>
<tr>
<td>6</td>
<td><strong>No falls</strong> this month</td>
</tr>
</tbody>
</table>

Notes for Abstraction:  

- Infection event must meet specific definitions (see Appendix F)
- Infection event must also complete *Date of Event, Device* and *Specific Event Type*
- Fall event must also complete *Fall Injury Level*

Suggested Data Sources:  

- Laboratory reports
- Nurses notes
- Progress notes
- Radiology reports

Guidelines for Abstraction:  

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>See Appendix F</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: Fall Injury Level

Collected For: NSC-5

Definition: The patient’s condition after 24 hours from the fall.

Suggested Data Collection Question: What was the injury level experienced by this patient as a result of this fall?

Format: Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:
1 None - patient had no injuries
2 Minor - resulted in application of a dressing, ice, cleaning of a wound, limb elevation, topical medication, bruise or abrasion
3 Moderate - resulted in suturing, application of steri-strips/skin glue, splinting, or muscle or joint strain
4 Major - resulted in surgery, casting, traction, fracture, or required consultation for neurological or internal injury
5 Death - the patient died as a result of injuries sustained from the fall
6 UTD – Unable to Determine from the documentation

Notes for Abstraction:
- When the initial fall report is written by the nursing staff, the extent of the injury may not yet be known. A method to follow up on the patient’s condition after 24 hours from the fall must be established.
- When the patient is discharged within 24 hours from the fall determine injury level at the time of discharge.
- X-ray, CT scan or other radiological evaluation resulting in a finding of no injury, with no treatment and no signs or symptoms of injury- select “1 None”.
- Patients with coagulopathy who receive blood products as a result of a fall - select “4 Major”.

Suggested Data Sources:
- Incident, variance or occurrence report
- Nurses notes
- Progress notes
- Radiology report after time of fall
## Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: Hospital Patient Identifier

Collected For: NSC 1, 2, 3, 4, 5, 6, 7.1, 7.2, 7.3, 8.1, 8.2

Definition: The number used by the hospital to identify this patient’s stay, e.g., Medical Record Number, Account Number, Unique Identifiable Number as determined by the facility, etc.

Suggested Data Collection Question: What was the number used by the hospital to identify this patient’s stay?

Format:

<table>
<thead>
<tr>
<th>Length</th>
<th>Type</th>
<th>Occurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>Alphanumeric</td>
<td>1</td>
</tr>
</tbody>
</table>

Allowable Values: Up to 40 letters and/or numbers

Notes for Abstraction: None

Suggested Data Sources: None

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: *ICD-9-CM Other Diagnosis Codes*

Collected For: NSC-1

Definition: The International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) codes associated with the diagnosis for this hospitalization.

Suggested Data Collection Question: What were the ICD-9-CM other diagnosis codes selected for this medical record?

Format: Length: 6 (with or without decimal point)
Type: Alphanumeric
Occurs: 17

Allowable Values: Any valid ICD-9-CM diagnosis code

Notes for Abstraction: None

Suggested Data Sources:
- Discharge summary
- Face sheet
- UB-04, Field Locations: 67A-Q

Note: Medicare will only accept codes listed in fields A-H

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: **ICD-9-CM Other Procedure Codes**

Collected For: NSC-1

Definition: The International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) codes identifying all significant procedures other than the principal procedure.

Suggested Data Collection Question: What were the ICD-9-CM code(s) selected as other procedure(s) for this record?

Format: 
- **Length:** 5 (with or without decimal point)
- **Type:** Alphanumeric
- **Occurs:** 5

Allowable Values: Any valid ICD-9-CM procedure code

Notes for Abstraction: None

Suggested Data Sources:
- Discharge summary
- Face sheet
- UB-04, Field Location: 74A-E

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: *ICD-9-CM Other Procedure Dates*

Collected For: NSC-1

Definition: The month, day, and year when the associated procedure(s) was (were) performed.

Suggested Data Collection Question: What were the date(s) the other procedure(s) were performed?

Format:

- Length: 10 – MM-DD-YYYY (includes dashes) or UTD
- Type: Date
- Occurs: 5

Allowable Values:

- MM = Month (01-12)
- DD = Day (01-31)
- YYYY = Year (2001 – Current Year)
- UTD = Unable to Determine

Notes for Abstraction:

- If the procedure date for the associated procedure is unable to be determined from medical record documentation, enter UTD.
- The medical record must be abstracted as documented (taken at “face value”). When the date documented is obviously in error (not a valid format/range or outside of the parameters of care [after Discharge Date]) and no other documentation is found that provides this information, the abstractor should select “UTD.”

Examples:

- Documentation indicates the *ICD-9-CM Other Procedure Dates* was 02-42-2008. No other documentation in the medical record provides a valid date. Since the *ICD-9-CM Other Procedure Dates* is outside of the range listed in the Allowable Values for “Day,” it is not a valid date and the abstractor should select “UTD.”

- Patient expires on 02-12-2008 and documentation indicates the *ICD-9-CM Other Procedure Dates* was 03-12-2008. Other documentation in the medical record supports the date of death as being accurate. Since the *ICD-9-CM Other Procedure Dates* is after the *Discharge Date* (death), it is outside of the parameters of care and the abstractor should select “UTD.”
Notes for Abstraction continued:

Note:
Transmission of a case with an invalid date as described above will be rejected from the QIO Clinical Warehouse and the Joint Commission’s Data Warehouse. Use of “UTD” for ICD-9-CM Other Procedure Dates allows the case to be accepted into the warehouse.

Suggested Data Sources:
- Consultation notes
- Diagnostic test reports
- Discharge summary
- Face sheet
- Operative notes
- Procedure notes
- Progress notes
- UB-04, Field Location: 74A-E

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name:  *ICD-9-CM Principal Diagnosis Code*

Collected For:  NSC-1

Definition:  The International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) code associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.

Suggested Data Collection Question:  What was the ICD-9-CM code selected as the principal diagnosis for this record?

Format:  
- **Length:** 6 (with or without decimal point)
- **Type:** Alphanumeric
- **Occurs:** 1

Allowable Values:  Any valid ICD-9-CM diagnosis code

Notes for Abstraction:  195B195BThe principal diagnosis is defined in the Uniform Hospital Discharge Data Set (UHDDS) as “that condition established after study to be chiefly responsible for occasioning the admission of the patient to the hospital for care.”

Suggested Data Sources:  
- Discharge summary
- Face sheet
- UB-04, Field Location: 67

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name:  *ICD-9-CM Principal Procedure Code*

Collected For: NSC-1

Definition: The International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) code that identifies the principal procedure performed during this hospitalization. The principal procedure is the procedure performed for definitive treatment rather than diagnostic or exploratory purposes, or which is necessary to take care of a complication.

Suggested Data Collection Question: What was the ICD-9-CM code selected as the principal procedure for this record?

Format:  
- **Length:** 5 (with or without decimal point)  
- **Type:** Alphanumeric  
- **Occurs:** 1

Allowable Values: Any valid ICD-9-CM procedure code

Notes for Abstraction: The principal procedure as described by the Uniform Hospital Discharge Data Set (UHDDS) is one performed for definitive treatment rather than diagnostic or exploratory purposes, or which is necessary to take care of a complication.

Suggested Data Sources:  
- Discharge summary  
- Face sheet  
- UB-04, Field Location: 74

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: \textit{ICD-9-CM Principal Procedure Date}

Collected For: NSC-1

Definition: The month, day, and year when the principal procedure was performed.

Suggested Data Collection Question: What was the date the principal procedure was performed?

Format:

- **Length:** 10 – MM-DD-YYYY (includes dashes) or UTD
- **Type:** Date
- **Occurs:** 1

Allowable Values:

- MM = Month (01-12)
- DD = Day (01-31)
- YYYY = Year (2001 – Current Year)
- UTD = Unable to Determine

Notes for Abstraction:

- If the principal procedure date is unable to be determined from medical record documentation, enter UTD.
- The medical record must be abstracted as documented (taken at “face value”). When the date documented is obviously in error (not a valid date/format or is outside of the parameters of care [after \textit{Discharge Date}] and no other documentation is found that provides this information, the abstractor should select “UTD.”

Examples:

  - Documentation indicates the \textit{ICD-9-CM Principal Procedure Date} was 02-42-2008. No other documentation in the medical record provides a valid date. Since the \textit{ICD-9-CM Principal Procedure Date} is outside of the range listed in the Allowable Values for “Day,” it is not a valid date and the abstractor should select “UTD.”

  - Patient expires on 02-12-2008 and documentation indicates the \textit{ICD-9-CM Principal Procedure Date} was 03-12-2008. Other documentation in the medical record supports the date of death as being accurate. Since the \textit{ICD-9-CM Principal Procedure Date} is after the \textit{Discharge Date} (death), it is outside of the parameter of care and the abstractor should select “UTD.”
Notes for Abstraction continued:

Note:
Transmission of a case with an invalid date as described above will be rejected from the QIO Clinical Warehouse and the Joint Commission’s Data Warehouse. Use of “UTD” for ICD-9-CM Principal Procedure Date allows the case to be accepted into the warehouse.

Suggested Data Sources:

- Consultation notes
- Diagnostic test reports
- Discharge summary
- Face sheet
- Operative notes
- Procedure notes
- Progress notes
- UB-04, Field Location: 74

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name:  *Indwelling Urinary Catheter Days*

Collected For:  NSC-6

Definition:  Any day that a patient has an indwelling urinary catheter device in place at the time the count is done. This daily count is aggregated/ summed across the days of the month to provide the total number of urinary catheter days for the month for each individual ICU Location.

Suggested Data Collection Question:  What is the total number of indwelling urinary catheter days for this ICU Location for the month?

Format:
- Length:  5
- Type:  Numeric
- Occurs: 1 per strata (One aggregate count is expected for each report stratum)

Allowable Values:  0 - 99999

Notes for Abstraction:  Indwelling urinary catheter days should be counted in a consistent manner (e.g., at the same time each day). A separate catheter day count is collected for each ICU location.

Suggested Data Sources:
- Direct observation
- Graphic sheets
- Nurses notes
- Progress notes

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Do not count straight in –and-out catheters or catheters not inserted into the urinary bladder through the urethra</td>
</tr>
</tbody>
</table>
Data Element Name: Location

Collected For: NSC 6, 7.1, 7.2, 7.3, 8.1, 8.2

Definition: The patient’s location for collection of device days of interest (e.g., central line, umbilical catheter, urinary catheter, ventilator).

Suggested Data Collection Question: What is the ICU location for the device days collected for the month?

Format:
- Length: 9
- Type: Alphanumeric
- Occurs: 1

Allowable Values: Code for ICU Location

- B-Adult: Burn Critical Care – Adult
- MC-Adult: Medical Cardiac Critical Care - Adult
- SCT-Adult: Surgical Cardiothoracic Critical Care-Adult
- M-Adult: Medical Critical Care – Adult
- MS1-Adult: Combined medical/surgical Critical Care Care - Adult (major teaching hospital)
- MS0-Adult: Combined medical/surgical Critical Care Care - Adult (all hospitals other than major teaching)
- N-Adult: Neurologic Critical Care - Adult
- NS-Adult: Neurosurgical Critical Care – Adult
- R-Adult: Respiratory Critical Care – Adult
- S-Adult: Surgical Critical Care – Adult
- T-Adult: Trauma Critical Care – Adult

- B-Ped: Burn Critical Care – Pediatric
- CT-Ped: Cardiothoracic Critical Care- Pediatric
- M-Ped: Medical Critical Care – Pediatric
- MS-Ped: Medical-Surgical Critical Care - Pediatric
- NS-Ped: Neurosurgical Critical Care - Pediatric
- R-Ped: Respiratory Critical Care - Pediatric
- S-Ped: Surgical Critical Care - Pediatric
- T-Ped: Trauma Critical Care - Pediatric

- N-III: Neonatal Intensive Care Unit (NICU) – Level III
- N-II-III: Neonatal Intensive Care Unit (NICU) – Combined Level II - III
Notes for Abstraction:

- To select the unit types first determine the acuity level of the patients typically served on the unit. If the unit has 90% or greater of the same acuity type, select that acuity level. If the unit acuity level does not meet the criteria of 90% or greater for one acuity level type, then select mixed acuity unit. For example, if 90% or greater of the patients typically served on the unit require the highest level of care select critical care unit; if the unit has 30% step-down or intermediate level of care and 70% med-surg patients select mixed acuity unit; if the level of acuity is med/surg, and the unit typically serves 90% or greater surgical patients select surgical unit type; if the unit acuity level is med/surg and serves 60% medical and 40% surgical, select med-surg combined unit.

- To select a specialty unit or location type the patients served must be 80% or greater of the same specialty type to select the specialty or location type. For example if 80% of the patients served are cardiac surgery select surgical cardiothoracic critical care. For NSC 6, 7, and 8 when selecting the Location or Location of Attribution data element and the unit does not meet the criteria of 80% of one specialty type, the location should be mapped to the CDC Location equivalent specialty type.

Suggested Data Sources:

- Diagnostic codes
- Graphic sheets
- Nurses notes
- Physician orders
- Physician progress notes
- Progress notes

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
**Data Element Name:** Location of Attribution

**Collected For:** NSC 6, 7.1, 7.2, 7.3, 8.1, 8.2

**Definition:** The location to which the event being measured is assigned to.

**Suggested Data Collection Question:** To what location is the infection event attributed?

**Format:**
- **Length:** 9
- **Type:** Alphanumeric
- **Occurs:** 1

**Allowable Values:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-Adult</td>
<td>Burn Critical Care – Adult</td>
</tr>
<tr>
<td>MC-Adult</td>
<td>Medical Cardiac Critical Care - Adult</td>
</tr>
<tr>
<td>SCT-Adult</td>
<td>Surgical Cardiothoracic Critical Care-Adult</td>
</tr>
<tr>
<td>MS1-Adult</td>
<td>Combined medical/surgical Critical Care - Adult (major teaching hospital)</td>
</tr>
<tr>
<td>MS0-Adult</td>
<td>Combined medical/surgical Critical Care - Adult (all hospitals other than major teaching)</td>
</tr>
<tr>
<td>N-Adult</td>
<td>Neurologic Critical Care - Adult</td>
</tr>
<tr>
<td>NS-Adult</td>
<td>Neurosurgical Critical Care – Adult</td>
</tr>
<tr>
<td>R-Adult</td>
<td>Respiratory Critical Care – Adult</td>
</tr>
<tr>
<td>S-Adult</td>
<td>Surgical Critical Care – Adult</td>
</tr>
<tr>
<td>T-Adult</td>
<td>Trauma Critical Care – Adult</td>
</tr>
<tr>
<td>B-Ped</td>
<td>Burn Critical Care – Pediatric</td>
</tr>
<tr>
<td>CT-Ped</td>
<td>Cardiothoracic Critical Care - Pediatric</td>
</tr>
<tr>
<td>M-Ped</td>
<td>Medical Critical Care – Pediatric</td>
</tr>
<tr>
<td>MS-Ped</td>
<td>Medical-Surgical Critical Care - Pediatric</td>
</tr>
<tr>
<td>NS-Ped</td>
<td>Neurosurgical Critical Care - Pediatric</td>
</tr>
<tr>
<td>R-Ped</td>
<td>Respiratory Critical Care - Pediatric</td>
</tr>
<tr>
<td>S-Ped</td>
<td>Surgical Critical Care - Pediatric</td>
</tr>
<tr>
<td>T-Ped</td>
<td>Trauma Critical Care - Pediatric</td>
</tr>
<tr>
<td>N-III</td>
<td>Neonatal Intensive Care Unit (NICU) – Level III</td>
</tr>
<tr>
<td>N-II-III</td>
<td>Neonatal Intensive Care Unit (NICU) – Combined Level II -III</td>
</tr>
</tbody>
</table>
Notes for Abstraction:

- If the infection develops in a patient within 48 hours of discharge from the ICU/NICU location, attribute to the discharging location, not the current location of the patient.
- To select the unit types first determine the acuity level of the patients typically served on the unit. If the unit has 90% or greater of the same acuity type, select that acuity level. If the unit acuity level does not meet the criteria of 90% or greater for one acuity level type, then select mixed acuity unit. For example, if 90% or greater of the patients typically served on the unit require the highest level of care select critical care unit; if the unit has 30% step-down or intermediate level of care and 70% med-surg patients select mixed acuity unit; if the level of acuity is med/surg, and the unit typically serves 90% or greater surgical patients select surgical unit type; if the unit acuity level is med/surg and serves 60% medical and 40% surgical, select med-surg combined unit.
- To select a specialty unit or location type the patients served must be 80% or greater of the same specialty type to select the specialty or location type. For example if 80% of the patients served are cardiac surgery select surgical cardiothoracic critical care. For NSC 6, 7, and 8 when selecting the Location or Location of Attribution data element and the unit does not meet the criteria of 80% of one specialty type, the location should be mapped to the CDC Location equivalent specialty type.

Suggested Data Sources:

- Diagnostic codes
- Graphic sheets
- Nurses notes
- Physician orders
- Physician progress notes
- Progress notes

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: LPN/LVN Hours [Contract/Agency]

Collected For: NSC 9.1, 9.2, 9.3, 9.4, 10.2

Definition: Total number of productive hours worked by Licensed Practical Nurses and Licensed Vocational Nurses contracted to the facility with direct patient care responsibilities.

Suggested Data Collection Question: What was the total number of productive hours worked by Licensed Practical Nurses and Licensed Vocational Nurses with patient care responsibilities contracted to the facility during the calendar month?

Format: Length: 5
Type: Alphanumeric
Occurs: 1 - Overall
1 per strata

Allowable Values: 0 - 99999

Notes for Abstraction:
- Check to be sure that contract/agency hours are included by licensure category.
- Negative numbers are not allowed
- Outliers should be checked during data cleaning
- Productive Hours are actual direct hours worked, not budgeted or scheduled hours and excludes vacation, sick time, orientation, education leave, or committee time.

Suggested Data Sources:
- Patient Acuity System
- Payroll Accounting
- Staffing System
- Other (or combination of two of the above)

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: LPN/LVN Hours [Employee]

Collected For: NSC 9.1, 9.2, 9.3, 9.4, 10.2

Definition: Total number of productive hours worked by Licensed Practical Nurses and Licensed Vocational Nurses with direct patient care responsibilities, who are replaced if they call in sick and are employed directly by the facility.

Suggested Data Collection Question: What was the total number of productive hours worked by Licensed Practical Nurses and Licensed Vocational Nurses with direct patient care responsibilities, who are replaced if they call in sick and are employed directly by the facility during the calendar month?

Format: Length: 5
Type: Alphanumeric
Occurs: 1 Overall
1 per strata

Allowable Values: 0 - 99999

Notes for Abstraction:
- Check to be sure that contract/agency hours are included by licensure category.
- Negative numbers are not allowed
- Outliers should be checked during data cleaning
- Productive Hours are actual direct hours worked, not budgeted or scheduled hours and excludes vacation, sick time, orientation, education leave, or committee time.

Suggested Data Sources: Sources for reporting nursing hours include:
- Patient Acuity System
- Payroll Accounting
- Staffing System
- Other (or combination of two of the above)

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: **Major Diagnostic Category (MDC)**

Collected For: NSC-1

Definition: This initial broad classification of diagnoses, typically grouped by body system, to which a patient is assigned when determining a DRG within The International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) classification system.

Suggested Data Collection Question: What was the assigned *Major Diagnostic Category* for this record?

Format:
- Length: 2
- Type: Numeric
- Occurs: 1

Allowable Values: Any valid ICD-9-CM MDC code

Notes for Abstraction: None

Suggested Data Sources:
- Face sheet
- UB-92, Other

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name:  *Month*


Definition:  The 2 digit month during which the measure specific episode occurred.

Suggested Data Collection Question:  What was the month during which the measure specific episode occurred?

Format:  
Length:  2
Type:  Alphanumeric
Occurs:  1

Allowable Values:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>January</td>
<td>05</td>
</tr>
<tr>
<td>02</td>
<td>February</td>
<td>06</td>
</tr>
<tr>
<td>03</td>
<td>March</td>
<td>07</td>
</tr>
<tr>
<td>04</td>
<td>April</td>
<td>08</td>
</tr>
<tr>
<td>09</td>
<td>September</td>
<td>10</td>
</tr>
<tr>
<td>11</td>
<td>November</td>
<td>12</td>
</tr>
</tbody>
</table>

Notes for Abstraction:  None

Suggested Data Sources:

- Measure specific data collection documentation (electronic or manual)

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: Number of Patient Falls

Collected For: NSC-4

Definition: The total number of patient falls that occurred on the eligible reporting unit during the calendar month.

Suggested Data Collection Question: What was the total number of patient falls for this unit during the calendar month?

Format: Length: 4
       Type: Numeric
       Occurs: 1

Allowable Values: 0-9999

Notes for Abstraction:
- Enter 0 if no falls occurred; or Event Type 6 "No falls this month".
- It is recommended that your facility outline internal data and staff sources that will be used to report on this measure and to be sure your data conform to measure specifications.
- Any event related to a patient fall that occurs on an eligible reporting unit and generates a report should be counted.

Suggested Data Sources:
- Secondary risk management sources
- Incident Reports
- Variance Reports
- Event Reports

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name:  *Number of Responses*

Collected For:  NSC-12

Definition:  The number of responses for the survey question.

Suggested Data Collection Question:  What was the total number of responses for this question?

Format:

- **Length:** 5
- **Type:** Numeric
- **Occurs:** 31

Allowable Values:  0 – 99999

Notes for Abstraction:  None

Suggested Data Sources:
- The Practice Environment Scale of the Nursing Work Index (PES-NWI)

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: *Observed Pressure Ulcer – Hospital-Acquired*

Collected For: NSC-2

Definition: Documentation that the observed pressure ulcer meets the criteria for hospital-acquired (nosocomial). Hospital-acquired ulcers are those discovered or documented after the first 24 hours from the time of inpatient admission.

Suggested Data Collection Question: Was the pressure ulcer discovered or documented after the first 24 hours from the time of inpatient admission?

Format: Length: 1
Type: Alphanumeric
Occurs: 48

Allowable Values:
1 (Yes) Pressure Ulcer was discovered or documented after the first 24 hours from the time of inpatient admission
2 (No) Pressure Ulcer was discovered or documented within the first 24 hours from the time of inpatient admission
3 (UTD) Unable to Determine from the documentation

Notes for Abstraction:
- A community acquired pressure ulcer is defined by: Ulcer discovered/documented within the first 24 hours from the time of inpatient admission; or Prevalence study was done within the first 24 hours from the time of inpatient admission and ulcer was already present
- Hospital-acquired pressure ulcers refer to new ulcer(s) developed after the first 24 hours from the time of inpatient admission. All pressure ulcers not meeting the community-acquired criteria should be designated as hospital-acquired pressure ulcers.
- An ulcer of category/stage II or greater observed after the first 24 hours from the time of inpatient admission AND for which there is no documentation in the record indicating the date of first discovery; should be considered as hospital-acquired.
- This data element is completed for each documented pressure ulcer.
Suggested Data Sources:
- Nurses notes
- Pressure ulcer prevalence study worksheet or data collection tool
- Progress notes

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: Observed Pressure Ulcer - Category/stage

Collected For: NSC-2

Definition: Documentation of the category/stage for the observed pressure ulcer using the NPUAP / EPUAP Pressure Ulcer Classification System.

Suggested Data Collection Question: What was the category/stage for this pressure ulcer?

Format:  
Length: 1  
Type: Alphanumeric  
Occurs: 48

Allowable Values:  
1 Category/stage I - Non-blanchable erythema  
2 Category/stage II – Partial thickness  
3 Category/stage III – Full thickness skin loss  
4 Category/stage IV – Full thickness tissue loss  
5 Unstageable/Unclassified – Full thickness skin or tissue loss – depth unknown  
6 Suspected deep tissue injury – depth unknown  
7 There is no documentation of category/stage or Unable to Determine from the documentation

Notes for Abstraction:  
• Follow NPUAP / EPUAP Pressure Ulcer Classification System. (see Appendix D, Table 1)  
• This data element is completed for each documented pressure ulcer.

Suggested Data Sources:  
• Nurses notes  
• Pressure ulcer prevalence study worksheet or data collection tool  
• Progress notes

Guidelines for Abstraction:  

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: Observed Pressure Ulcer(s)

Collected For: NSC-2

Definition: Documentation that a pressure ulcer was or was not observed at the time of the prevalence study.

Suggested Data Collection Question: How many pressure ulcers were observed on the day of the prevalence study?

Format: Length: 1
Type: Alphanumeric
Occurs: 48

Allowable Values: 0-48

Notes for Abstraction:
- Follow the Prevalence Study Methodology in Appendix E.
- Skin breakdown due to arterial occlusion, venous insufficiency, diabetes related neuropathy, or incontinence dermatitis are not pressure ulcers.
- No value should be recorded more than once.
- All observed pressure ulcers should be documented following prevalence study definitions.

Suggested Data Sources:
- Pressure ulcer prevalence study worksheet or data collection tool

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
</table>
| All patients on all eligible units present at the time the study is conducted. | • Patients who refuse to be assessed<br>• Patients who are off the unit at the time of the prevalence study, i.e. surgery, x-ray, physical therapy, etc.<br>• Patients who are medically unstable at the time of the study for whom assessment would be contraindicated at the time of the study, i.e. unstable blood pressure, uncontrolled pain, or fracture waiting repair.<br>• Patients who are actively dying and pressure ulcer prevention is no longer }
| a treatment goal. |
Data Element Name: Patient Days

Collected For: NSC 4, 5, 10.1, 10.2

Definition: The total number of patient days, per unit, for a month.

Suggested Data Collection Question: What is the total number of patient days for this unit during the calendar month?

Format: Length: 5
        Type: Numeric
        Occurs: 1

Allowable Values: 0 – 99999

Notes for Abstraction: Hospital selects one method to determine patient days, as appropriate to their patient population and as supported by their information resources. See Appendix D, Patient Days Reporting Methods.

Suggested Data Sources:
- Accounting or billing systems
- Admission/discharge/transfer systems
- Actual patient hours, short and long stay
- Actual short stay patient hours
- Multiple daily census reports
- Patient census records, including: Midnight census

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>See Appendix D, Patient Days Reporting Methods</td>
<td>A negative number</td>
</tr>
</tbody>
</table>
Data Element Name: Payment Source

Collected For: NSC-1

Definition: The source of payment for this episode of care.

Suggested Data Collection Question: What is the patient’s source of payment for this episode of care?

Format: Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values: 1 Source of payment is Medicare.
2 Source of payment is Non-Medicare.

Notes for Abstraction: • If Medicare is listed as the primary, secondary, tertiary, or even lower down on the list or payers, select “1”.
• If the patient is an Undocumented Alien or Illegal immigrant, select “1.” Undocumented Alien: Section 1011 of the Medicare Modernization Act of 2003 allows for reimbursement for services rendered to patients who are: Undocumented or illegal aliens (immigrants), Aliens who have been paroled into a United States port of entry and Mexican citizens permitted to enter the United States on a laser visa.

Suggested Data Sources: • Face sheet
• UB-04, Field Location: 50A, B or C

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicare includes, but is not limited to:</td>
<td>None</td>
</tr>
<tr>
<td>• Medicare Fee for Service (includes DRG or PPS)</td>
<td></td>
</tr>
<tr>
<td>• Black Lung</td>
<td></td>
</tr>
<tr>
<td>• End Category/stage Renal Disease (ESRD)</td>
<td></td>
</tr>
<tr>
<td>• Railroad Retirement Board (RRB)</td>
<td></td>
</tr>
<tr>
<td>• Medicare Secondary Payer</td>
<td></td>
</tr>
<tr>
<td>• Medicare HMO/Medicare Advantage</td>
<td></td>
</tr>
</tbody>
</table>
Data Element Name:  *PES-NWI Adequate Support Services*

Collected For:  NSC-12

Definition:  Adequate support services allow me to spend time with my patients.

Suggested Data Collection Question:  Adequate support services allow me to spend time with my patients.

Format:  
Length:  1  
Type:  Numeric  
Occurs:  1

Allowable Values:  
4  Strongly Agree  
3  Agree  
2  Disagree  
1  Strongly Disagree  
0  No Response or Unable to Determine

Notes for Abstraction:  
- Data is abstracted from individual survey responses.  
- If the respondent did not mark an answer or you are not able to determine which single answer was marked, select “0 No Response or Unable to Determine” The “0” selection is for analysis purposes only and is not a selection option listed on the survey tool.

Suggested Data Sources:  
- The Practice Environment Scale of the Nursing Work Index (PES-NWI)

Guidelines for Abstraction:  

<table>
<thead>
<tr>
<th>Inclusion</th>
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</table>
Data Element Name:  

*PES-NWI Administration Listens and Responds*

Collected For:  

NSC-12

Definition:  

Administration that listens and responds to employee concerns.

Suggested Data Collection Question:  

Administration that listens and responds to employee concerns.

Format:  

Length: 1  

Type: Alphanumeric  

Occurs: 1

Allowable Values:  

4 Strongly Agree  

3 Agree  

2 Disagree  

1 Strongly Disagree  

0 No Response or Unable to Determine

Notes for Abstraction:

- Data is abstracted from individual survey responses.  
- If the respondent did not mark an answer or you are not able to determine which single answer was marked, select “0 No Response or Unable to Determine” The “0” selection is for analysis purposes only and is not a selection option listed on the survey tool.

Suggested Data Sources:

- The Practice Environment Scale of the Nursing Work Index (PES-NWI)

Guidelines for Abstraction:

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</table>
Data Element Name: PES-NWI Advancement Opportunities

Collected For: NSC-12

Definition: Opportunity for advancement is available in your current job.

Suggested Data Collection Question: Opportunities for advancement.

Format:
- Length: 1
- Type: Alphanumeric
- Occurs: 1

Allowable Values:
- 4  Strongly Agree
- 3  Agree
- 2  Disagree
- 1  Strongly Disagree
- 0  No Response or Unable to Determine

Notes for Abstraction:
- Data is abstracted from individual survey responses.
- If the respondent did not mark an answer or you are not able to determine which single answer was marked, select “0 No Response or Unable to Determine” The “0” selection is for analysis purposes only and is not a selection option listed on the survey tool.

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</table>
Data Element Name: PES-NWI Career Development

Collected For: NSC-12

Definition: Career development/clinical ladder opportunity exists in your present job.

Suggested Data Collection Question: Career development/clinical ladder opportunity.

Format:
- Length: 1
- Type: Alphanumeric
- Occurs: 1

Allowable Values:
- 4 Strongly Agree
- 3 Agree
- 2 Disagree
- 1 Strongly Disagree
- 0 No Response or Unable to Determine

Notes for Abstraction:
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</table>
Data Element Name:  
*PES-NWI Chief Nursing Officer Authority*

Collected For:  
NSC-12

Definition:  
The chief nurse officer is equal in power and authority to other top-level hospital executives.

Suggested Data Collection Question:  
A chief nurse office equal in power and authority to other top-level hospital executives.

Format:  
Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:  
4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree
0 No Response or Unable to Determine

Notes for Abstraction:  
- Data is abstracted from individual survey responses.
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Suggested Data Sources:  
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</table>
**Data Element Name:** PES-NWI Chief Nursing Officer Visibility

**Collected For:** NSC-12

**Definition:** A chief nursing officer who is highly visible and accessible to staff.

**Suggested Data Collection Question:** A chief nursing officer who is highly visible and accessible to staff.

**Format:**
- **Length:** 1
- **Type:** Alphanumeric
- **Occurs:** 1

**Allowable Values:**
- 4  Strongly Agree
- 3  Agree
- 2  Disagree
- 1  Strongly Disagree
- 0  No Response or Unable to Determine

**Notes for Abstraction:**
- Data is abstracted from individual survey responses.
- If the respondent did not mark an answer or you are not able to determine which single answer was marked, select “0 No Response or Unable to Determine” The “0” selection is for analysis purposes only and is not a selection option listed on the survey tool.

**Suggested Data Sources:**
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</table>
Data Element Name:  *PES-NWI Collaboration*

Collected For:  NSC-12

Definition:  Collaboration (joint practice) between nurses and physicians is present in your current job.

Suggested Data Collection Question:  Collaboration (joint practice) between nurses and physicians.

Format:
- **Length:** 1
- **Type:** Alphanumeric
- **Occurs:** 1

Allowable Values:
- 4  Strongly Agree
- 3  Agree
- 2  Disagree
- 1  Strongly Disagree
- 0  No Response or Unable to Determine

Notes for Abstraction:
- Data is abstracted from individual survey responses.
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</table>
**Data Element Name:** PES-NWI Continuing Education

**Collected For:** NSC-12

**Definition:** Active staff development or continuing education programs for nurses exist in your current job.

**Suggested Data Collection Question:** Active staff development or continuing education programs for nurses.

**Format:**
- **Length:** 1
- **Type:** Alphanumeric
- **Occurs:** 1

**Allowable Values:**
- 4  Strongly Agree
- 3  Agree
- 2  Disagree
- 1  Strongly Disagree
- 0  No Response or Unable to Determine

**Notes for Abstraction:**
- Data is abstracted from individual survey responses.
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**Suggested Data Sources:**
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</table>
Data Element Name:  
*PES-NWI Continuity of Patient Assignments*

Collected For:  
NSC-12

Definition:  
Patient care assignments that foster continuity of care, i.e. the same nurse cares for the patient from one day to the next are used in your current job.

Suggested Data Collection Question:  
Patient care assignments that foster continuity of care, i.e. the same nurse cares for the patient from one day to the next.

Format:  
Length: 1  
Type: Alphanumeric  
Occurs: 1

Allowable Values:  
4  Strongly Agree  
3  Agree  
2  Disagree  
1  Strongly Disagree  
0  No Response or Unable to Determine

Notes for Abstraction:  
- Data is abstracted from individual survey responses.  
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</table>
Data Element Name:  PES-NWI Enough Nurses for Quality Care

Collected For:  NSC-12

Definition:  There are enough registered nurses to provide quality patient care.

Suggested Data Collection Question:  Enough registered nurses to provide quality patient care.

Format:  
- Length:  1  
- Type:  Alphanumeric  
- Occurs:  1

Allowable Values:  
- 4  Strongly Agree  
- 3  Agree  
- 2  Disagree  
- 1  Strongly Disagree  
- 0  No Response or Unable to Determine

Notes for Abstraction:  
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</table>
Data Element Name:  

*PES-NWI Enough Staffing*

Collected For:  

NSC-12

Definition:  

Enough staff to get the work done.

Suggested Data Collection Question:  

Enough staff to get the work done.

Format:  

**Length:** 1  
**Type:** Alphanumeric  
**Occurs:** 1

Allowable Values:  

- 4  Strongly Agree  
- 3  Agree  
- 2  Disagree  
- 1  Strongly Disagree  
- 0  No Response or Unable to Determine

Notes for Abstraction:  

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</table>
Data Element Name:  
PES-NWI High Nursing Care Standards

Collected For:  
NSC-12

Definition:  
High standards of nursing care are expected by the administration.

Suggested Data Collection Question:  
High standards of nursing care are expected by the administration.

Format:  
Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:  
4  Strongly Agree
3  Agree
2  Disagree
1  Strongly Disagree
0  No Response or Unable to Determine

Notes for Abstraction:
- Data is abstracted from individual survey responses.
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</table>
Data Element Name:  *PES-NWI Nurse and Physician Relationships*

Collected For:  NSC-12

Definition:  Physicians and nurses have good working relationships at your current job

Suggested Data Collection Question:  Physicians and nurses have good working relationships.

Format:  

| Length:  | 1 |
| Type:    | Alphanumeric |
| Occurs:  | 1 |

Allowable Values:  

- 4 Strongly Agree
- 3 Agree
- 2 Disagree
- 1 Strongly Disagree
- 0 No Response or Unable to Determine

Notes for Abstraction:

- Data is abstracted from individual survey responses.
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</table>
Data Element Name:  

PES-NWI Nurse and Physician Teamwork

Collected For:  

NSC-12

Definition:  

A lot of teamwork between nurses and physicians is present in your current job.

Suggested Data Collection Question:  

A lot of teamwork between nurses and physicians.

Format:  

Length: 1  
Type: Alphanumeric  
Occurs: 1

Allowable Values:  

4  Strongly Agree  
3  Agree  
2  Disagree  
1  Strongly Disagree  
0  No Response or Unable to Determine

Notes for Abstraction:

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</table>
Data Element Name: PES-NWI Nurse Manager and Leader

Collected For: NSC-12

Definition: A nurse manager who is a good manager and leader is present in your current job.

Suggested Data Collection Question: A nurse manager who is a good manager and leader.

Format:
- Length: 1
- Type: Alphanumeric
- Occurs: 1

Allowable Values:
- 4: Strongly Agree
- 3: Agree
- 2: Disagree
- 1: Strongly Disagree
- 0: No Response or Unable to Determine

Notes for Abstraction:
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</table>
Data Element Name: PES-NWI Nurse Manager Backs up Staff

Collected For: NSC-12

Definition: A nurse manager who backs up the nursing staff in decision making even if the conflict is with a physician is present in your current job.

Suggested Data Collection Question: A nurse manager who backs up the nursing staff in decision making even if the conflict is with a physician.

Format:

- Length: 1
- Type: Alphanumeric
- Occurs: 1

Allowable Values:

- 4 Strongly Agree
- 3 Agree
- 2 Disagree
- 1 Strongly Disagree
- 0 No Response or Unable to Determine

Notes for Abstraction:

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</table>
Data Element Name: PES-NWI Nurses Are Competent

Collected For: NSC-12

Definition: Working with nurses who are clinically competent.

Suggested Data Collection Question: Working with nurses who are clinically competent.

Format:
- Length: 1
- Type: Alphanumeric
- Occurs: 1

Allowable Values:
- 4 Strongly Agree
- 3 Agree
- 2 Disagree
- 1 Strongly Disagree
- 0 No Response or Unable to Determine

Notes for Abstraction:
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</table>
Data Element Name: PES-NWI Nursing Administrators Consult

Collected For: NSC-12

Definition: Nursing administrators consult with staff on daily problems and procedures.

Suggested Data Collection Question: Nursing administrators consult with staff on daily problems and procedures.

Format: Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:
- 4 Strongly Agree
- 3 Agree
- 2 Disagree
- 1 Strongly Disagree
- 0 No Response or Unable to Determine

Notes for Abstraction:
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NSC Implementation Guide, 2009
Alphabetical Data Dictionary-77
Data Element Name:  

PES-NWI Nursing Care Model

Collected For:  

NSC-12

Definition:  

Nursing care is based on a nursing, rather than a medical, model.

Suggested Data Collection Question:  

Nursing care is based on a nursing, rather than a medical, model.

Format:  

Length: 1  
Type: Alphanumeric  
Occurs: 1

Allowable Values:  

4 Strongly Agree  
3 Agree  
2 Disagree  
1 Strongly Disagree  
0 No Response or Unable to Determine

Notes for Abstraction:  

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</table>
Data Element Name: PES-NWI Nursing Committees

Collected For: NSC-12

Definition: Staff nurses have the opportunity to serve on hospital and nursing committees.

Suggested Data Collection Question: Staff nurses have the opportunity to serve on hospital and nursing committees.

Format:

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Allowable Values:

- 4 Strongly Agree
- 3 Agree
- 2 Disagree
- 1 Strongly Disagree
- 0 No Response or Unable to Determine

Notes for Abstraction:

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</table>
Data Element Name:  

*PES-NWI Nursing Diagnosis*

Collected For:  

NSC-12

Definition:  

Nursing diagnosis is used in your current job.

Suggested Data Collection Question:  

Use of nursing diagnosis.

Format:  

**Length:** 1  
**Type:** Alphanumeric  
**Occurs:** 1

Allowable Values:  

4  Strongly Agree  
3  Agree  
2  Disagree  
1  Strongly Disagree  
0  No Response or Unable to Determine

Notes for Abstraction:

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</table>
Data Element Name:  
*PES-NWI Participation in Policy Decisions*

Collected For:  
NSC-12

Definition:  
Opportunity for staff nurses to participate in policy decisions is present in your current job.

Suggested Data Collection Question:  
Opportunity for staff nurses to participate in policy decisions

Format:  
**Length:** 1  
**Type:** Alphanumeric  
**Occurs:** 1

Allowable Values:  
4  Strongly Agree  
3  Agree  
2  Disagree  
1  Strongly Disagree  
0  No Response or Unable to Determine

Notes for Abstraction:  
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- If the respondent did not mark an answer or you are not able to determine which single answer was marked, select “0 No Response or Unable to Determine” The “0” selection is for analysis purposes only and is not a selection option listed on the survey tool.

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</table>
Data Element Name: PES-NWI Patient Care Plans

Collected For: NSC-12

Definition: Written, up-to-date nursing care plans for all patients are present in your current job.

Suggested Data Collection Question: Written, up-to-date nursing care plans for all patients

Format: Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:

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</table>
Data Element Name:  
*PES-NWI Philosophy of Nursing*

Collected For:  
NSC-12

Definition:  
A clear philosophy of nursing that pervades the patient care environment is present in your current job.

Suggested Data Collection Question:  
A clear philosophy of nursing that pervades the patient care environment.

Format:  
Length: 1  
Type: Alphanumeric  
Occurs: 1

Allowable Values:  
4  Strongly Agree  
3  Agree  
2  Disagree  
1  Strongly Disagree  
0  No Response or Unable to Determine

Notes for Abstraction:  
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<tr>
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<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name:  *PES-NWI Preceptor Program*

Collected For:  NSC-12

Definition:  A preceptor program for newly hired RNs is present in your current job.

Suggested Data Collection Question:  A preceptor program for newly hired RNs.

Format:
- **Length:** 1
- **Type:** Alphanumeric
- **Occurs:** 1

Allowable Values:
- 4  Strongly Agree
- 3  Agree
- 2  Disagree
- 1  Strongly Disagree
- 0  No Response or Unable to Determine

Notes for Abstraction:
- Data is abstracted from individual survey responses.
- If the respondent did not mark an answer or you are not able to determine which single answer was marked, select “0 No Response or Unable to Determine” The “0” selection is for analysis purposes only and is not a selection option listed on the survey tool.

Suggested Data Sources:
- The Practice Environment Scale of the Nursing Work Index (PES-NWI)

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name:  

**PES-NWI Quality Assurance Program**

Collected For:  

NSC-12

Definition:  

An active quality assurance program is present in your current job.

Suggested Data Collection Question:  

An active quality assurance program.

Format:  

Length: 1  
Type: Alphanumeric  
Occurs: 1

Allowable Values:  

4  Strongly Agree  
3  Agree  
2  Disagree  
1  Strongly Disagree  
0  No Response or Unable to Determine

Notes for Abstraction:  

- Data is abstracted from individual survey responses.  
- If the respondent did not mark an answer or you are not able to determine which single answer was marked, select “0 No Response or Unable to Determine” The “0” selection is for analysis purposes only and is not a selection option listed on the survey tool.

Suggested Data Sources:  

- The Practice Environment Scale of the Nursing Work Index (PES-NWI)

Guidelines for Abstraction:  

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name:  *PES-NWI Recognition*

Collected For:  NSC-12

Definition:  Praise and recognition for a job well done are present in your current job.

Suggested Data Collection Question:  Praise and recognition for a job well done.

Format:
- **Length:** 1
- **Type:** Alphanumeric
- **Occurs:** 1

Allowable Values:
- 4  Strongly Agree
- 3  Agree
- 2  Disagree
- 1  Strongly Disagree
- 0  No Response or Unable to Determine

Notes for Abstraction:
- Data is abstracted from individual survey responses.
- If the respondent did not mark an answer or you are not able to determine which single answer was marked, select “0 No Response or Unable to Determine.” The “0” selection is for analysis purposes only and is not a selection option listed on the survey tool.

Suggested Data Sources:
- The Practice Environment Scale of the Nursing Work Index (PES-NWI)

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
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<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: PES-NWI Staff Nurses Hospital Governance

Collected For: NSC-12

Definition: Staff nurses are involved in the internal governance of the hospital (e.g., practice and policy committees) in your current job.

Suggested Data Collection Question: Staff nurses are involved in the internal governance of the hospital (e.g., practice and policy committees).

Format: Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:
- 4 Strongly Agree
- 3 Agree
- 2 Disagree
- 1 Strongly Disagree
- 0 No Response or Unable to Determine

Notes for Abstraction:
- Data is abstracted from individual survey responses.
- If the respondent did not mark an answer or you are not able to determine which single answer was marked, select “0 No Response or Unable to Determine” The “0” selection is for analysis purposes only and is not a selection option listed on the survey tool.

Suggested Data Sources:
- The Practice Environment Scale of the Nursing Work Index (PES-NWI)

Guidelines for Abstraction:

<table>
<thead>
<tr>
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<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: PES-NWI Supervisors Learning Experiences

Collected For: NSC-12

Definition: Supervisors use mistakes as learning opportunities, not criticism in your current job.

Suggested Data Collection Question: Supervisors use mistakes as learning opportunities, not criticism

Format: Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>3</td>
<td>Agree</td>
</tr>
<tr>
<td>2</td>
<td>Disagree</td>
</tr>
<tr>
<td>1</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>0</td>
<td>No Response or Unable to Determine</td>
</tr>
</tbody>
</table>

Notes for Abstraction:

- Data is abstracted from individual survey responses.
- If the respondent did not mark an answer or you are not able to determine which single answer was marked, select “0 No Response or Unable to Determine” The “0” selection is for analysis purposes only and is not a selection option listed on the survey tool.

Suggested Data Sources:

- The Practice Environment Scale of the Nursing Work Index (PES-NWI)

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: PES-NWI Supportive Supervisory Staff

Collected For: NSC-12

Definition: A supervisory staff that is supportive of the nurses is present in your current job.

Suggested Data Collection Question: A supervisory staff that is supportive of the nurses.

Format:
- Length: 1
- Type: Alphanumeric
- Occurs: 1

Allowable Values:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>3</td>
<td>Agree</td>
</tr>
<tr>
<td>2</td>
<td>Disagree</td>
</tr>
<tr>
<td>1</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>0</td>
<td>No Response or Unable to Determine</td>
</tr>
</tbody>
</table>

Notes for Abstraction:
- Data is abstracted from individual survey responses.
- If the respondent did not mark an answer or you are not able to determine which single answer was marked, select “0 No Response or Unable to Determine” The “0” selection is for analysis purposes only and is not a selection option listed on the survey tool.

Suggested Data Sources:
- The Practice Environment Scale of the Nursing Work Index (PES-NWI)

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: PES-NWI Time to Discuss Patient Problems

Collected For: NSC-12

Definition: There is enough time and opportunity to discuss patient care problems with other nurses in your current job.

Suggested Data Collection Question: Enough time and opportunity to discuss patient care problems with other nurses.

Format:

<table>
<thead>
<tr>
<th>Length: 1</th>
</tr>
</thead>
</table>

Type: Alphanumeric

Occurs: 1

Allowable Values:

- 4 Strongly Agree
- 3 Agree
- 2 Disagree
- 1 Strongly Disagree
- 0 No Response or Unable to Determine

Notes for Abstraction:

- Data is abstracted from individual survey responses.
- If the respondent did not mark an answer or you are not able to determine which single answer was marked, select “0 No Response or Unable to Determine” The “0” selection is for analysis purposes only and is not a selection option listed on the survey tool.

Suggested Data Sources:

- The Practice Environment Scale of the Nursing Work Index (PES-NWI)

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: Physical Restraint

Collected For: NSC-3

Definition: Physical restraint (e.g., limb, waist, roll belt, vest, or side rails) is any manual method, physical or mechanical device, material, or equipment that immobilizes or reduces the ability of a patient to move his or her arms, legs, body or head freely.

Suggested Data Collection Question: Was a physical restraint in place for this patient at the time the prevalence study?

Format: Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values: 1 Physical restraints were in use
2 No physical restraints were in use
3 There is no documentation of physical restraints or Unable to Determine from the documentation

Notes for Abstraction:
- This data element is required for rate calculation
- Must also complete Type of Restraint

Suggested Data Sources:
- Pressure ulcer prevalence study worksheet or data collection tool
- Nurses notes
- Progress notes
- Graphic sheets
- Physician orders
- Patient Observation Worksheet

Guidelines for Abstraction:
### Inclusion

Any manual method, physical or mechanical device, material, or equipment that immobilizes or reduces the ability of a patient to move his or her arms, legs, body or head freely. For example:

- Tucking a patient’s sheets in so tightly that the patient cannot move
- Use of a “net bed” or an “enclosed bed” that prevents the patient from freely exiting the bed. (except placement of a toddler in an “enclosed” or “domed” crib)
- Use of “Freedom” splints that immobilize a patient’s limb
- Using side rails to prevent a patient from voluntarily getting out of bed
- Geri chairs or recliners, only if the patient cannot easily remove the restraint appliance and get out of the chair on his or her own

**Note:** Generally, if a patient can easily remove a device, the device would not be considered a restraint. In this context “easily remove” means that the manual method, device, material, or equipment can be removed intentionally by the patient in the same manner as it was applied by the staff (e.g., side rails are put down, not climbed over: buckles are intentionally unbuckled; ties or knots are intentionally untied; etc.) considering the patient’s physical condition and ability to accomplish objective (e.g., transfer to a chair, get to the bathroom in time).

### Exclusion

A restraint does not include devices, such as orthopedically prescribed devices, surgical dressings or bandages, protective helmets, or other methods that involve the physical holding of a patient for the purpose of conduction routine physical examinations or tests, or to protect the patient from falling out of bed, or to permit the patient to participate in activities without the risk of physical harm. For example:

- Use of an IV arm board to stabilize an IV line is generally not considered a restraint. However, if the arm board is tied down (or otherwise attached to the bed), the use of the arm board would be considered a restraint.
- A mechanical support used to achieve proper body position, balance, or alignment so as to allow greater freedom of mobility that would be possible without the use of such a support, i.e. leg braces for walking, neck, head or back braces to sit upright.
- Hand mitts when NOT pinned or otherwise attached to bedding or used in conjunction with a wrist restraint.

---

Data Element Name:  *Point of Origin for Admission or Visit*

Collected For:  NSC-1

Definition:  A code indicating the point of patient origin for this admission.

Suggested Data Collection Question:  What was the point of origin for this admission?

Format:
- **Length**: 1
- **Type**: Alphanumeric
- **Occurs**: 1

Allowable Values:
1. **Non-Health Care Facility Point of Origin**
   The patient was admitted to this facility upon order of a physician.
   Usage Note: Includes patients coming from home, a physician’s office, or workplace

2. **Clinic**
   The patient was admitted to this facility as a transfer from a freestanding or non-freestanding clinic.

3. **Reserved for assignment by the NUBC**
   (Discontinued effective 10/1/2007.)

4. **Transfer From a Hospital (Different Facility)**
   The patient was admitted to this facility as a hospital transfer from an acute care facility where he or she was an inpatient or outpatient.
   Usage Note: Excludes Transfers from Hospital Inpatient in the Same Facility (See Code D).

5. **Transfer from a Skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF)**
   The patient was admitted to this facility as a transfer from a SNF or ICF where he or she was a resident.

6. **Transfer from another Health Care Facility**
   The patient was admitted to this facility as a transfer from another type of health care facility not defined elsewhere in this code list.

7. **Emergency Room**
   The patient was admitted to this facility after receiving
services in this facility’s emergency room.

Usage Note: Excludes patients who came to the emergency room from another health care facility.

8 Court/Law Enforcement
The patient was admitted to this facility upon the direction of court of law, or upon the request of a law enforcement agency.

Usage Note: Includes transfers from incarceration facilities.

9 Information not Available
The means by which the patient was admitted to this hospital is unknown.

A Reserved for assignment by the NUBC.
(Discontinued effective 10/1/2007.)

D Transfer from One Distinct Unit of the Hospital to another Distinct Unit of the Same Hospital Resulting in a Separate Claim to the Payer
The patient was admitted to this facility as a transfer from hospital inpatient within this hospital resulting in a separate claim to the payer.

Usage Note: For purposes of this code, “Distinct Unit” is defined as a unique unit or level of care at the hospital requiring the issuance of a separate claim to the payer. Examples could include observation services, psychiatric units, rehabilitation units, a unit in a critical access hospital, or a swing bed located in an acute hospital.

E Transfer from Ambulatory Surgery Center
The patient was admitted to this facility as a transfer from an ambulatory surgery center.

F Transfer from Hospice and is Under a Hospice Plan of Care or Enrolled in a Hospice Program
The patient was admitted to this facility as a transfer from hospice.

Code Structure for Newborn (Used For PR-2 Only)

1 – 4 Reserved for assignment by the NUBC.
(Discontinued effective 10/1/2007)

5 Born Inside the Hospital
Allowable Values continued:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Born Outside this Hospital</td>
</tr>
<tr>
<td>6</td>
<td>A baby born outside this Hospital</td>
</tr>
</tbody>
</table>

Note:

CMS and The Joint Commission are aware that there are additional UB-04 allowable values for this data element; however, they are not used for the national quality measure sets at this time.

Notes for Abstraction:

- The intent of this data element is to focus on patients’ place or point of origin rather than the source of a physician order or referral.
- The point of origin is the direct source for the particular facility.

Example 1:

A SNF patient has chest pain is taken to the emergency department of Hospital A where it is determined that she is suffering an acute myocardial infarction. The patient is then transferred to Hospital B for admission as an inpatient. The Point of Origin for Hospital A would be 5 – Transfer from a Skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF); the point of origin code for Hospital b would be 4 – Transfer from a Hospital.

Example 2:

An auto accident victim was taken to the emergency department of Hospital A by EMTs, stabilized, then transferred to Hospital B where he receives additional treatment in the ED, and then is admitted as an inpatient to Hospital B. The Point of Origin code for Hospital A is 7 – Emergency Room; the point of origin for Hospital B would be 4 – Transfer from a Hospital.

- The emergency room code is limited to patients who receive unscheduled emergency services in the ER not originating from another health care facility. As in the auto accident example above, a victim brought to the ER would be coded as 7 since the patient was not previously at any other kind of health care facility. Code 7 also includes self-referrals in emergency situations that require immediate medical attention.

Usage Notes/Cases:

I. Transfers – From an Another Facility
   
   Overall Scenario
   
   While at another acute care hospital/facility, the patient is
Notes for Abstraction continued:

seen by the emergency room physicians. The patient is then transferred to our facility through the emergency room.

- The Point of Origin code would be Code 4 – Transfer from a Hospital (Different Facility) due to the patient being seen at the other acute care facility’s emergency room.

- If the decision to admit was not made by the other facility’s emergency room personnel and instead was made by our facilities emergency room doctor, the Point of Origin code would still be 4. Even though the decision to admit was not made by the other facility, the patient was still seen by the other facility’s emergency room personnel and a decision to transfer was made by them.

- The patient is seen by the other facility’s emergency room physician; the patient arrives at our emergency room, but receives no additional emergency room care at our facility. Instead, the patient is transferred immediately to the Heart Catheterization Department of our facility, the Point of Origin code would still be 4. Since the patient is seen by a different hospital’s emergency room personnel, the decision to transfer the patient is first made by the other facility. The arrival of the patient at the receiving hospital’s emergency room and subsequent transfer to the Heart Catheterization Department is secondary to the transfer from the previous facility transfer.

II. Transfers – Skilled Nursing Facility

Overall Scenario

A resident from a skilled nursing facility is taken to an acute care hospital for medical care.

- The Point of Origin code would be Code 5 – Transfer from a Skilled Nursing Facility.

- The patient’s family stopped by to pick-up the patient for a routine doctor’s office visit (regularly scheduled); but while at the doctor’s office the doctor sends the patient to the emergency room of the acute care hospital. The Point of Origin code would be 5 as the original Point of Origin is the skilled nursing facility. The subsequent visit to the doctor’s office (or even the emergency room of the hospital) is secondary to the events that took place earlier that day.
Notes for Abstraction continued:

III. Transfer by Law Enforcement or Court

Overall scenario
A patient arrives at the health care facility accompanied by police.
- The Point of Origin code would be Code 8 – Court/Law Enforcement as the patient is under the supervision of law enforcement.

- If the patient was simply transported by law enforcement to our facility, the patient is neither under arrest nor serving any jail time, then the Point of Origin code would be 7 – Emergency Room. Law enforcement is simply transporting the patient for emergency/urgent care treatment. The patient is not incarcerated (that is, neither under arrest nor serving any jail time).

Suggested Data Sources:
- Emergency department record
- Face sheet
- History and physical
- Nursing admission notes
- Progress notes
- UB-04, Field Location: 15

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
**Data Element Name:** Prevalence Study Date

**Collected For:** NSC 2, 3

**Definition:** The date of the prevalence study

**Suggested Data Collection Question:** On what date was the prevalence study conducted?

**Format:**
- **Length:** 10 – MM-DD-YYYY (includes dashes)
- **Type:** Date
- **Occurs:** 1

**Allowable Values:**
- MM = Month (01-12)
- DD = Day (01-31)
- YYYY = Year (2001 – Current Year)

**Notes for Abstraction:** None

**Suggested Data Sources:**
- Pressure ulcer / restraint prevalence study worksheet or data collection tool

**Guidelines for Abstraction:**

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
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<td>None</td>
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</tbody>
</table>
**Data Element Name:** *Reason for Separation*

**Collected For:** NSC-11.1, 11.2, 11.3

**Definition:** The reason for employment separation.

**Suggested Data Collection Question:** What was the reason the employee separated employment from the hospital?

**Format:**
- **Length:** 2
- **Type:** Numeric
- **Occurs:** 1

**Allowable Values:**
1. Cutbacks due to mergers
2. Cyclical layoffs
3. Death
4. Disability
5. Did not return after leave of absence
6. Dissatisfied with compensation
7. Dissatisfied with management
8. Dissatisfied with team members
9. Dissatisfied with work environment
10. Dissatisfied with work schedule
11. Education / return to school
12. Illness
13. Military service
14. Other permanent reduction in force
15. Personal reasons
16. Promoted within the hospital or system
17. Promoted at another hospital or organization
18. Performance or disciplinary issues
19. Relocation
20. Retirement
21. Terminated by hospital
22. Transfers within the hospital
23. Transfer to another hospital or entity in the system
24. Unable to Determine

**Notes for Abstraction:**
- The employee should not be prompted by the list of allowable values above rather allow them to give a reason in their own words and use the list of allowable values to categorize the reason.
Suggested Data Sources:
- Human Resource employment records

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time and part-time RN, APN, LPN/LVN and UAP</td>
<td>Per diems, contractors, consultants, temporary agency, travelers, students or other non-permanent employees.</td>
</tr>
</tbody>
</table>
Data Element Name: **RN Hours [Contract/Agency]**

Collected For: NSC-9.1, 9.2, 9.3, 9.4, 10.1, 10.2

Definition: Total number of productive hours worked by Registered Nurses contracted to the facility with direct patient care responsibilities.

Suggested Data Collection Question: What is the total number of productive hours worked by Registered Nurses with direct patient care responsibilities contracted to the facility during the calendar month?

Format:  
- **Length:** 5  
- **Type:** Alphanumeric  
- **Occurs:** 1 for overall rate  
  1 per strata

Allowable Values: 0 – 99999

Notes for Abstraction:  
- Negative numbers are not allowed  
- Outliers should be checked as part of quality assurance  
- Productive Hours are actual direct hours worked, not budgeted or scheduled hours and excludes vacation, sick time, orientation, education leave, or committee time.

Suggested Data Sources: Sources for reporting nursing hours include:  
- Patient Acuity System  
- Payroll Accounting  
- Staffing System  
- Other (or combination of two of the above)

Guidelines for Abstraction:  

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name:  RN Hours [Employee]

Collected For:  NSC-9.1, 9.2, 9.3, 9.4, 10.1, 10.2

Definition:  Total number of productive hours worked by Registered Nurses with direct patient care responsibilities for at least 50% or greater of work time, who are replaced if they call in sick and are employed directly by the facility.

Suggested Data Collection Question:  What is the total number of productive hours worked by Registered Nurses with direct patient care responsibilities for at least 50% or greater of work time, who are replaced if they call in sick and are employed directly by the facility during the calendar month?

Format:  

<table>
<thead>
<tr>
<th>Length</th>
<th>Type</th>
<th>Occurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Alphanumeric</td>
<td>1 for overall rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 per strata</td>
</tr>
</tbody>
</table>

Allowable Values:  1 – 99999

Notes for Abstraction:
- Negative numbers are not allowed
- Outliers should be checked as part of quality assurance
- Productive Hours are actual direct hours worked, not budgeted or scheduled hours and excludes vacation, sick time, orientation, education leave, or committee time.

Suggested Data Sources: Sources for reporting nursing hours include:
- Patient Acuity System
- Payroll Accounting
- Staffing System
- Other (or combination of two of the above)

Guidelines for Abstraction:

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: *Separations APN*

Collected For: NSC-11.1

Definition: The total number of employment separations for eligible Advanced Practice Nurses during the calendar month.

Suggested Data Collection Question: What was the total number of employment separations for eligible Advance Practice Nurses during the calendar month?

Format:
- **Length:** 4
- **Type:** Numeric
- **Occurs:** 1

Allowable Values: 0 - 9999

Notes for Abstraction: Separations are counted as of the last day worked. Therefore, an employee separation is credited to the month of the last day worked, even if the resignation was submitted in the prior month.

Suggested Data Sources:
- Human Resource employment records

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advance practice nurses (APN) engaged in direct patient care positions or</td>
<td>Advance practice nurse (APN) per diems, contractors, consultants, temporary agency, travelers,</td>
</tr>
<tr>
<td>related supervisory positions and positions for which an advanced (RN)</td>
<td>students or other non-permanent employees. Voluntary uncontrolled separations due to: death,</td>
</tr>
<tr>
<td>nursing degree is a specific condition of hire.</td>
<td>disability, illness, pregnancy, relocation, military service, education, retirement,</td>
</tr>
<tr>
<td></td>
<td>promotion, performance or discipline, cutbacks due to mergers, cyclical layoffs, or in other</td>
</tr>
<tr>
<td></td>
<td>permanent reductions in force. Transfers should be excluded when the voluntary turnover</td>
</tr>
<tr>
<td></td>
<td>metric is calculated at the organization level.</td>
</tr>
</tbody>
</table>
Data Element Name: Separations LPN/LVN

Collected For: NSC-11.2

Definition: The total number employment separations for eligible Licensed Practical Nurse and Licensed Vocational Nurse staff during the calendar month.

Suggested Data Collection Question: What was the total number of employment separations for eligible Licensed Practical Nurses and Licensed Vocational Nurses during the calendar month?

Format: Length: 4
Type: Numeric
Occurs: 1

Allowable Values: 0 – 9999

Notes for Abstraction: Separations are counted as of the last day worked. Therefore, an employee separation is credited to the month of the last day worked, even if the resignation was submitted in the prior month.

Suggested Data Sources: • Human resource employment records

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Licensed Practical Nurses and Licensed Vocational Nurses</td>
<td>Voluntary uncontrolled separations due to: death, disability, illness, pregnancy, relocation, military service, education, retirement, promotion, performance or discipline, cutbacks due to mergers, cyclical layoffs, or in other permanent reductions in force. Transfers should be excluded when the voluntary turnover metric is calculated at the organization level.</td>
</tr>
</tbody>
</table>
Data Element Name: Separations RN
Collected For: NSC-11.1
Definition: The total number of employment separations from eligible Registered Nurse staff during the calendar month.

Suggested Data Collection Question: What was the total number of employment separations for eligible Registered Nurses during the calendar month?

Format: Length: 4
Type: Numeric
Occurs: 1

Allowable Values: 0 – 9999

Notes for Abstraction: Separations are counted as of the last day worked. Therefore, an employee separation is credited to the month of the last day worked, even if the resignation was submitted in the prior month.

Suggested Data Sources:
- Human resource employment records

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered Nurses</td>
<td>Voluntary uncontrolled separations due to: death, disability, illness, pregnancy, relocation, military service, education, retirement, promotion, performance or discipline, cutbacks due to mergers, cyclical layoffs, or in other permanent reductions in force. Transfers should be excluded when the voluntary turnover metric is calculated at the organization level.</td>
</tr>
</tbody>
</table>
Data Element Name: Separations UAP

Collected For: NSC-11.3

Definition: The total number of employment separations for eligible Unlicensed Assistive Personnel (UAP) staff during the calendar month.

Suggested Data Collection Question: What was the total number of employment separations for eligible nurse assistants for the calendar month?

Format:
- Length: 4
- Type: Numeric
- Occurs: 1

Allowable Values: 0 – 9999

Notes for Abstraction: Separations are counted as of the last day worked. Therefore, an employee separation is credited to the month of the last day worked, even if the resignation was submitted in the prior month.

Suggested Data Sources:
- Human resource employment records

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlicensed Assistive Personnel (UAP)</td>
<td>Voluntary uncontrolled separations due to: death, disability, illness, pregnancy, relocation, military service, education, retirement, promotion, performance or discipline, cutbacks due to mergers, cyclical layoffs, or in other permanent reductions in force. Transfers should be excluded when the voluntary turnover metric is calculated at the organization level.</td>
</tr>
</tbody>
</table>
Data Element Name:  

**Sex**

Collected For:  

1, 2, 3, 4, 5, 6, 7.1, 7.2, 7.3, 8.1, 8.2

Definition:  
The patient’s documented sex on arrival at the hospital.

Suggested Data Collection Question:  
What was the patient’s sex on arrival?

Format:  

<table>
<thead>
<tr>
<th>Length</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Character</td>
</tr>
<tr>
<td>Occurs</td>
<td>1</td>
</tr>
</tbody>
</table>

Allowable Values:  
M = Male  
F = Female  
U = Unknown

Notes for Abstraction:  
- Collect the documented patient’s sex at admission or the first documentation after arrival.  
- Consider the sex to be unable to be determined and select “Unknown” if:  
  - The patient refuses to provide their sex.  
  - Documentation is contradictory.  
  - Documentation indicates the patient is a Transexual.  
  - Documentation indicates the patient is a Hermaphrodite.

Suggested Data Sources:  
- Consultation notes  
- Emergency department record  
- Face sheet  
- History and physical  
- Nursing admission notes  
- Progress notes  
- UB-04, Field Location: 11

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name:  
*Specific Event Type*

Collected For: 
NSC 6, 7.1, 7.2, 7.3, 8.1, 8.2

Definition: 
The specific criteria within the event type.

Suggested Data Collection Question: 
What is the specific criterion by which the event is classified?

Format: 
- Length: 1
- Type: Alphanumeric
- Occurs: 1

Allowable Values:  
1  ASB  Asymptomatic bacteriuria
2  SUTI  Symptomatic urinary tract infection
3  LCBI  Laboratory Confirmed Bloodstream Infection
4  CSEP  Clinical Sepsis
5  PNU1  Clinically Defined Pneumonia
6  PNU2  Pneumonia with Specific Laboratory Findings
7  PNU3  Pneumonia in Immunocompromised Patients
8  UTD  Unable to Determine from documentation

Notes for Abstraction: 
Please refer to the criteria provided in Appendix F.

Suggested Data Sources: 
- Laboratory records
- Nurses Notes
- Physician orders
- Progress notes
- Radiology records

Guidelines for Abstraction:  

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>See Appendix F, Tables 6.1 – 8.5</td>
<td>None</td>
</tr>
</tbody>
</table>
**Data Element Name:**  
*Survey Date*

**Collected For:**  
NSC-12

**Definition:**  
The date the PES-NWI nursing survey was completed by the nurse.

**Suggested Data Collection Question:**  
What is the date the nursing survey was completed by the nurse?

**Format:**  
**Length:** 10 – MM-DD-YYYY (includes dashes)  
**Type:** Date  
**Occurs:** 1

**Allowable Values:**  
MM = Month (01-12)  
DD = Day (01-31)  
YYYY = Year (2001 – Current Year)

**Notes for Abstraction:**  
None

**Suggested Data Sources:**  
- The Practice Environment Scale of the Nursing Work Index (PEWS-NWI)

**Guidelines for Abstraction:**

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name:  *Survey Distribution Date*

Collected For:   NSC-12

Definition: The date the PEW-NWI nursing survey is distributed or made available to the nursing staff.

Suggested Data Collection Question: What is the date the nursing surveys were distributed or made available?

Format:

- **Length:** 10 – MM-DD-YYYY (includes dashes)
- **Type:** Date
- **Occurs:** 1

Allowable Values:

- **MM** = Month (01-12)
- **DD** = Day (01-31)
- **YYYY** = Year (2001 – Current Year)

Notes for Abstraction: None

Suggested Data Sources:

- The Practice Environment Scale of the Nursing Work Index (PEWS-NWI) survey collection tool.

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: Total Number of Nurses Surveyed

Collected For: NSC-12

Definition: The total number of PES-NWI eligible nurses in this survey period.

Suggested Data Collection Question: What is the total number of eligible nurses in this survey period?

Format:

Length: 5
Type: Numeric
Occurs: 1

Allowable Values: 1 – 99999

Notes for Abstraction: None

Suggested Data Sources:
- Human resources records
- Payroll records
- Staffing system reports

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Registered Nurses with direct patient care responsibilities for 50% or greater of their job</td>
<td>• New hires of less than 3 months</td>
</tr>
<tr>
<td>• Full time, part time, and PRN or per diem RN’s employed by the hospital</td>
<td>• Agency, traveler or contract nurses</td>
</tr>
<tr>
<td>• Eligible nurses from all hospital units</td>
<td>• Nurses in management, supervisory, or educator roles with direct patient care responsibilities less than 50% of their job, whose primary responsibility is administrative in nature</td>
</tr>
</tbody>
</table>
Data Element Name: Total Number of Surveys

Collected For: NSC-12

Definition: The total number of PES-NWI surveys submitted.

Suggested Data Collection Question: What is the total number of surveys submitted?

Format: Length: 5
Type: Numeric
Occurs: 1

Allowable Values: 1 – 99999

Notes for Abstraction:
- Unit-level findings should only be reported for units with 5 or more respondents.

Suggested Data Sources:
- The Practice Environment Scale of the Nursing Work Index (PES-NWI) survey collection tool

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: *Type of Restraint*

Collected For: NSC-3

Definition: A designated restraint design or location of application.

Suggested Data Collection Question: What type of physical restraint was in place on the day of the prevalence study?

Format:

<table>
<thead>
<tr>
<th>Length</th>
<th>Type</th>
<th>Occurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Alphanumeric</td>
<td>3</td>
</tr>
</tbody>
</table>

Allowable Values:

1. Limb (including soft or leather)
2. Vest
3. Other
4. Unable to Determine from documentation

Notes for Abstraction: Indicate all the restraints that apply.

Suggested Data Sources:

- Graphic sheets
- Nurses notes
- Patient Observation Worksheet
- Physician orders
- Pressure ulcer / restraint prevalence study worksheet or data collection tool
- Progress notes

Guidelines for Abstraction:
### Inclusion

Any manual method, physical or mechanical device, material, or equipment that immobilizes or reduces the ability of a patient to move his or her arms, legs, body or head freely. For example:

- Tucking a patient’s sheets in so tightly that the patient cannot move
- Use of a “net bed” or an “enclosed bed” that prevents the patient from freely exiting the bed. (except placement of a toddler in an "enclosed" or "domed" crib)
- Use of “Freedom” splints that immobilize a patient’s limb
- Using side rails to prevent a patient from voluntarily getting out of bed
- Geri chairs or recliners, only if the patient cannot easily remove the restraint appliance and get out of the chair on his or her own

**Note:** Generally, if a patient can easily remove a device, the device would not be considered a restraint. In this context “easily remove” means that the manual method, device, material, or equipment can be removed intentionally by the patient in the same manner as it was applied by the staff (e.g., side rails are put down, not climbed over: buckles are intentionally unbuckled; ties or knots are intentionally untied; etc.) considering the patient’s physical condition and ability to accomplish objective (e.g., transfer to a chair, get to the bathroom in time).

### Exclusion

A restraint does not include devices, such as orthopedically prescribed devices, surgical dressings or bandages, protective helmets, or other methods that involve the physical holding of a patient for the purpose of conduction routine physical examinations or tests, or to protect the patient from falling out of bed, or to permit the patient to participate in activities without the risk of physical harm. For example:

- Use of an IV arm board to stabilize an IV line is generally not considered a restraint. However, if the arm board is tied down (or otherwise attached to the bed), the use of the arm board would be considered a restraint.
- A mechanical support used to achieve proper body position, balance, or alignment so as to allow greater freedom of mobility that would be possible without the use of such a support, i.e. leg braces for walking, neck, head or back braces to sit upright.
- Hand mitts when NOT pinned or otherwise attached to bedding or used in conjunction with a wrist restraint.

---

Data Element Name: Type of Unit


Definition: Unit type reflects the patient population and the service line. It is used in risk stratification, so that reporting occurs for similar units.

Suggested Data Collection Question: What is the type of unit?

Format:

Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:

1  Critical Care – adult
2  Step-down – adult
3  Medical - adult
4  Surgical - adult
5  Med-Surg Combined - adult
6  Mixed acuity – adult

Notes for Abstraction:

- To select the unit types first determine the acuity level of the patients typically served on the unit. If the unit has 90% or greater of the same acuity type, select that acuity level. If the unit acuity level does not meet the criteria of 90% or greater for one acuity level type, then select mixed acuity unit. For example, if 90% or greater of the patients typically served on the unit require the highest level of care select critical care unit; if the unit has 30% step-down or intermediate level of care and 70% med-surg patients select mixed acuity unit; if the level of acuity is med/surg, and the unit typically serves 90% or greater surgical patients select surgical unit type; if the unit acuity level is med/surg and serves 60% medical and 40% surgical, select med-surg combined unit.

- To select a specialty unit or location type the patients served must be 80% or greater of the same specialty type to select the specialty or location type. For example if 80% of the patients served are cardiac surgery select surgical cardiothoracic critical care. For NSC 6, 7, and 8 when selecting the Location or Location of Attribution data element and the unit does not meet the criteria of 80% of one specialty type, the location should be mapped to the CDC Location equivalent specialty type.
Suggested Data Sources:
- Hospital unit plan
- Unit nursing managers

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name:  *UAP Hours [Contract/Agency]*

Collected For:  NSC-9.1, 9.2, 9.3, 9.4, 10.2

Definition:  Total number of productive hours worked by Unlicensed Assistive Personnel (UAP) contracted to the facility with direct patient care responsibilities.

Suggested Data Collection Question:  What is the total number of productive hours worked by Unlicensed Assistive Personnel (UAP) with direct patient care responsibilities contracted to the facility during the calendar month?

Format:

<table>
<thead>
<tr>
<th>Length</th>
<th>Type</th>
<th>Occurs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alphanumeric</td>
<td>1 per strata</td>
</tr>
</tbody>
</table>

Allowable Values:  0 – 99999

Notes for Abstraction:

- Negative numbers are not allowed
- Outliers should be checked as part of quality assurance
- Personnel meeting the definition for Unlicensed Assistive Personnel (UAP) should be included in this category – even if they are in a state that has instituted licensure for these health care workers.
- Productive Hours are actual direct hours worked, not budgeted or scheduled hours and excludes vacation, sick time, orientation, education leave, or committee time.

Suggested Data Sources:  Sources for reporting nursing hours include:

- Patient Acuity System
- Payroll Accounting
- Staffing System
- Other (or combination of two of the above)

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: **UAP Hours [Employee]**

Collected For: NSC-9.1, 9.2, 9.3, 9.4, 10.2

Definition: Total number of productive hours worked by Unlicensed Assistive Personnel (UAP) with direct patient care responsibilities, who are replaced if they call in sick and are employed directly by the facility.

Suggested Data Collection Question: What is the total number of productive hours worked by Unlicensed Assistive Personnel (UAP) with direct patient care responsibilities, who are replaced if they call in sick and are employed directly by the facility during the calendar month?

Format: Length: 5  
Type: Alphanumeric  
Occurs: 1

Allowable Values: 0 – 99999

Notes for Abstraction:
- Negative numbers are not allowed
- Outliers should be checked as part of quality assurance
- Personnel meeting the definition for Unlicensed Assistive Personnel (UAP) should be included in this category – even if they are in a state that has instituted licensure for these health care workers.
- Productive Hours are actual direct hours worked, not budgeted or scheduled hours and excludes vacation, sick time, orientation, education leave, or committee time.

Suggested Data Sources: Sources for reporting nursing hours include:
- Patient Acuity System
- Payroll Accounting
- Staffing System
- Other (or combination of two of the above)

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name:  *Umbilical Catheter Days*

Collected For:  NSC 7.3

Definition:  Any day that a neonate has an umbilical catheter in place at the time the count is done. A neonate with an umbilical catheter and a central line in place on a given day is counted as one umbilical catheter day. This daily count is aggregated / summed across the days of the month to provide the total number of umbilical catheter days for the month for each birth weight category in the NICU location.

Suggested Data Collection Question:  What is the total number of umbilical catheter days in the NICU for this birth weight category for the month?

Format:  
- **Length:** 5
- **Type:** Numeric
- **Occurs:** 1 per strata (One aggregate count is expected for each report stratum or birth weight category)

Allowable Values:  0 - 99999

Notes for Abstraction:  
- This data element is collected only for the NICU population.
- Umbilical catheter days should be collected in a consistent manner (e.g., at the same time each day).
- A separate *Umbilical Catheter Days* total is collected for each birth weight category.

Suggested Data Sources:  
- Radiographic record showing the catheter tip location
- Nursing notes
- Operative record
- Progress notes
- Direct observation

Guidelines for Abstraction:  

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: Ventilator Days

Collected For: NSC 8.1, 8.2

Definition: For each day of the month, at the same time each day, record the number of patients, by eligible reporting strata, who are on a ventilator. This daily count is aggregated / summed across the days of the month to provide the total number of ventilator days for the month for each ICU Location and for each Birth weight Category in the NICU.

Suggested Data Collection Question: What is the total number of ventilator days for this ICU Location or birth weight category for the month?

Format: Length: 5
Type: Numeric
Occurs: 1 per strata (One aggregate count is expected for each report stratum or birth weight category)

Allowable Values: 0 - 99999

Notes for Abstraction:
- Ventilator days should be counted in a consistent manner (e.g., at the same time each day).
- A separate ventilator day count is collected for each birth weight category and ICU location.

Suggested Data Sources:
- Respiratory therapy notes
- Graphic sheets
- Nursing notes
- Progress notes
- Direct observation

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: Year


Definition: The 4-digit year during which the measure specific episode occurred.

Suggested Data Collection Question: What was the year during which the measure specific episode occurred?

Format:
- Length: 4
- Type: Alphanumeric
- Occurs: 1

Allowable Values: YYYY = Year (2001 – Current Year)

Notes for Abstraction: None

Suggested Data Sources:
- Organization-specific data collection documentation (electronic or manual)

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
NQF-ENDORSED VOLUNTARY CONSENSUS STANDARDS FOR NURSING-SENSITIVE CARE PERFORMANCE MEASURES

Measure Information Form

Measure Set: Nursing-Sensitive Care (NSC)

Set Measure ID: NSC-1

Performance Measure Name: Death among surgical inpatients with treatable serious complications

Description: Surgical inpatients with complications of care whose discharge status is death.

Note: This MIF is included as part of the NSC measure set, provided in a consistent format to assist in the implementation of the NSC set. Please refer to the Agency for Healthcare Research and Quality (AHRQ) website for complete measure specifications. Patient Safety Indicator (PSI) Technical Specifications: http://www.qualityindicators.ahrq.gov/psi_download.htm

Rationale: Nursing care is an integral part of patient care processes in the acute care hospital environment. Research in the past decade has been undertaken to develop an evidence base for the relationship between patient outcomes potentially sensitive to nursing (OPSN) and nurse staffing in the acute inpatient setting. For example, in the study Nurse Staffing and Patient Outcomes in Hospitals, Needleman et al. used a large sample of hospital administrative data from 1997 to examine the relationship between selected patient outcomes potentially sensitive to nursing and nurse staffing, for medical and surgical patients. Analysis of the data indicated that the outcome of death among major surgery patients who developed specified complications (failure to rescue) was associated statistically with nurse staffing variables. Key nursing functions of patient assessment and surveillance are important in the identification of patient complications, the implementation of early interventions and the potential avoidance of adverse patient outcomes. Measurement of this patient-centered outcome, together with nurse staffing-related variables and other metrics of nursing care, may identify opportunities to enhance patient care and positively influence patient outcomes.

Type of Measure: Outcome

Improvement Noted as: A decrease in the rate.

Numerator Statement: All discharges with a disposition of “deceased” among cases meeting the inclusion and exclusion rules for the denominator.

Included Populations: Not applicable
Excluded Populations: None

Data Elements:
Discharge Status

Denominator Statement: All surgical discharges age 18 years and older defined by specific DRGs and an ICD-9-CM code for an operating room procedure, principal procedure within 2 days of admission OR admission type elective with potential complications of care listed in Death among Surgical definition (e.g., pneumonia, DVT/PE, sepsis, shock/cardiac arrest, or GI hemorrhage/acute ulcer).

For complete tables and technical specifications, see the AHRQ Patient Safety Indicator (PSI) Technical Specifications

Included Populations: Discharges with:
- A listed ICD-9-CM Diagnosis-Related Group (DRG) for Operating Room Procedure, Surgical Discharge DRG or Surgical Discharge MS-DRG
- ICD-9-CM Principal Procedure Date within 2 days of admission OR Admission Type of elective
- Potential complications of care (e.g., pneumonia, DVT/PE, sepsis, shock/cardiac arrest, or GI hemorrhage/acute ulcer).

Excluded Populations:
- Patients greater than or equal to 90 years of age
- Patients less than 18 years of age
- Patients discharged with an MDC of 15 (newborns and other neonates)
- Patients transferred to an acute care facility

Note: Additional exclusion criteria is specific to each diagnosis

Populations by Complication:

DVT/PE:

Included: Discharges with:
- An ICD-9-CM Other Diagnosis Codes of Pulmonary Embolism/Deep Vein Thrombosis

Excluded: Discharges with:
- Preexisting (principal diagnosis or secondary diagnosis present on admission, if known) of pulmonary embolism or deep vein thrombosis
- Abortion-related and postpartum obstetric pulmonary embolism

Pneumonia:
Included: Discharges with:
- An ICD-9-CM Other Diagnosis Codes of Pneumonia

Excluded: Discharges with:
- Preexisting condition (principal diagnosis or secondary diagnosis present on admission, if known) of pneumonia or 997.3
- Any diagnosis code for viral pneumonia
- MDC 4 Diseases/disorders of Respiratory System
- Any ICD-9-CM Other Diagnosis Codes of Immunocompromised States

Sepsis:

Included: Discharges with:
- An ICD-9-CM Other Diagnosis Codes of Sepsis or Septicemia

Excluded: Discharges with:
- An ICD-9-CM Principal Diagnosis Code or ICD-9-CM Other Diagnosis Codes of immunocompromised state
  and
- ICD-9-CM Principal Diagnosis Code of infection or sepsis
  and
- A length of stay 3 days or less

Shock or Cardiac Arrest:

Included: Discharges with:
- An ICD-9-CM Principal Diagnosis Code or ICD-9-CM Other Diagnosis Codes of shock or cardiac arrest
- An ICD-9-CM Principal Procedure Code or ICD-9-CM Other Procedure Code for resuscitation or cardiac massage

Excluded: Discharges with:
- An ICD-9-CM Principal Diagnosis Code or ICD-9-CM Other Diagnosis Codes of hemorrhage, trauma or GI hemorrhage
- An MDC 4 diseases/disorders of respiratory system
- An MDC 5 diseases/disorders of circulatory system
- A preexisting condition (principal diagnosis or secondary diagnosis present on admission, if known) of shock or cardiac arrest
- An ICD-9-CM Principal Diagnosis Code or ICD-9-CM Other Diagnosis Codes of abortion-related shock

GI Hemorrhage/Acute Ulcer:

Included: Discharges with:
- An ICD-9-CM Principal Diagnosis Code or ICD-9-CM Other Diagnosis Codes of GI hemorrhage/acute ulcer, gastric, duodenal ulcer, peptic ulcer, gastrojejunal ulcer, gastritis and duodenitis ulcer

Excluded: Discharges with:
- An ICD-9-CM Principal Diagnosis Code or ICD-9-CM Other Diagnosis Codes of trauma
- An MDC 6 diseases/disorders of digestive system
- An MDC 7 diseases/disorders of hepatobiliary system and pancreas
- A preexisting condition (principal diagnosis or secondary diagnosis present on admission, if known) of GI hemorrhage/acute, alcoholism,
- An ICD-9-CM Principal Diagnosis Code or ICD-9-CM Other Diagnosis Codes of 280.0 or 285.1

Risk Adjustment: Yes
Risk Adjustment is accomplished through the use of the AHRQ co-morbidity software and covariates integrated into the AHRQ PSI module. AHRQ provides ongoing support through its Quality Indicators Software, specifically the Patient Safety Indicator module. For more information about the technical specifications, see the AHRQ Patient Safety Indicator (PSI) Technical Specifications.

Data Collection Approach: Retrospective, data sources for required data elements include administrative data and medical records.

Data Accuracy:
- Variation may exist in the assignment of ICD-9-CM codes; therefore, coding practices may require evaluation to ensure consistency.
- The principal procedure should have occurred on the day of admission or the day following admission.
- For questions regarding the technical specifications for the Agency for Healthcare Research and Quality’s (AHRQ) Patient Safety Indicators (PSIs) and Inpatient Quality Indicators (IQIs), contact: support@qualityindicators.ahrq.gov Or: (888) 512–6090.
- For questions regarding CMS’ calculations of the PSIs and IQIs for the RHQDAPU program, contact: AHRQmeasuresforRHQDAPU@mathematica-mpr.com.

Measure Analysis Suggestions: Organizations may wish to further examine the occurrences within the individual complication categories (e.g., sepsis, pneumonia, GI bleeding, shock/cardiac arrest or DVT/PE).

Sampling: No

Data Reported as: Aggregate rate generated from count data as a proportion
Selected References:


Performance Measure Source / Developer:
Needleman, Jack, et al.
Agency for Healthcare Research and Quality (AHRQ)
Measure Information Form

**NQF-ENDORSED VOLUNTARY CONSENSUS STANDARDS FOR NURSING-SENSITIVE CARE PERFORMANCE MEASURES**

Measure Set: Nursing-Sensitive Care

Performance Measure ID: NSC-2

<table>
<thead>
<tr>
<th>Set Measure ID#</th>
<th>Performance Measure Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSC-2a</td>
<td>Patients that have at least one category/stage II or greater hospital-acquired pressure ulcer on the day of the prevalence study – All Units – <strong>overall rate</strong> (NSC-2b, c, d, e, f and g)</td>
</tr>
<tr>
<td>NSC-2b</td>
<td>Patients that have at least one category/stage II or greater hospital-acquired pressure ulcer on the day of the prevalence study by Type of Unit – <strong>Critical Care - adult</strong></td>
</tr>
<tr>
<td>NSC-2c</td>
<td>Patients that have at least one category/stage II or greater hospital-acquired pressure ulcer on the day of the prevalence study by Type of Unit – <strong>Step-down - adult</strong></td>
</tr>
<tr>
<td>NSC-2d</td>
<td>Patients that have at least one category/stage II or greater hospital-acquired pressure ulcer on the day of the prevalence study by Type of Unit – <strong>Medical - adult</strong></td>
</tr>
<tr>
<td>NSC-2e</td>
<td>Patients that have at least one category/stage II or greater hospital-acquired pressure ulcer on the day of the prevalence study by Type of Unit – <strong>Surgical - adult</strong></td>
</tr>
<tr>
<td>NSC-2f</td>
<td>Patients that have at least one category/stage II or greater hospital-acquired pressure ulcer on the day of the prevalence study by Type of Unit – <strong>Med-Surg Combined - adult</strong></td>
</tr>
<tr>
<td>NSC-2g</td>
<td>Patients that have at least one category/stage II or greater hospital-acquired pressure ulcer on the day of the prevalence study by Type of Unit – <strong>Mixed Acuity - adult</strong></td>
</tr>
</tbody>
</table>

Performance Measure Name: Pressure Ulcer Prevalence (Hospital-Acquired)

Description: The total number of patients that have hospital-acquired (nosocomial) category/stage II or greater pressure ulcers on the day of the prevalence study.

Rationale: The incidence of hospitalized patients developing pressure ulcers has been reported to range from 2.7 percent (Gerson, 1975) to 29.5 percent (Clarke and Kadhom, 1988). Certain circumstances (e.g., immobility, incontinence, impaired nutritional status, critical illness, etc.) further increase the risk for selected patients. The development of hospital acquired pressure ulcers (HAPU) places the patient at risk for other adverse events and may lead to increased lengths of stay. HAPUs also increase resource consumption and costs. Recommendations from the guideline *Pressure Ulcers in Adults: Prediction and Prevention* (AHCPR, 1992) include the identification of...
individuals at risk and early intervention with a goal of maintaining and improving tissue tolerance in order to prevent injury. In most vulnerable patients, reducing risk factors and implementing preventive/treatment measures will reduce the incidence of new pressure ulcer development and prevent the worsening of existing ulcers. Nurses and nursing-care interventions play an important role in pressure ulcer prevention and management. The use of this prevalence measure allows organizations to monitor this important patient outcome at points in time and examine institutional processes.

**Type of Measure:** Outcome

**Improvement Noted as:** Decrease in rate

**Numerator Statement:** Patients that have at least one category/stage II or greater hospital-acquired pressure ulcer on the day of the prevalence study.

**Included Populations:**
- Hospital-acquired pressure ulcers (ulcers discovered or documented after the first 24 hours from the time of inpatient admission)
- Category/stage II or greater pressure ulcers
- Unstageable/unclassified pressure ulcers
- Suspected deep tissue injury

**Excluded Populations:**
- None

**Data Elements:**
- Observed Pressure Ulcer
- Observed Pressure Ulcer – Hospital-Acquired
- Observed Pressure Ulcer – Category/stage

**Denominator Statement:**
All patients surveyed for the study.

**Included Populations:** Patients 18 years or older who are admitted to all eligible units that are surveyed for the study.

**Excluded Populations:**
- Patients less than 18 years of age
- Patients who refuse to be assessed
- Patients who are off the unit at the time of the prevalence study, i.e. surgery, x-ray, physical therapy, etc.
- Patients who are medically unstable at the time of the study for whom assessment would be contraindicated at the time of the study, i.e. unstable blood pressure, uncontrolled pain, or fracture waiting repair.
Patients who are actively dying and pressure ulcer prevention is no longer a treatment goal.

**Data Elements:**
- Admission Date
- Birthdate
- Sex
- Type of Unit
- Prevalence Study Date

**Risk Adjustment:** by stratification

**Data Collection Approach:** Concurrent for required data elements

**Data Accuracy:**
- Review and follow the Prevalence Study Methodology (see Appendix E).
- Review and follow International NPUAP-EPUAP Pressure Ulcer Guidelines (see Appendix D).
- For the purposes of this measure, and to maximize reliability across organizations, hospital-acquired ulcers (discovered or documented after the first 24 hours from the time of inpatient admission) category/stage II or greater ulcers are included in the numerator.
- The patient observation/exam and the medical record review must be conducted on the same day.
- An ulcer of category/stage II or greater observed after the first 24 hours from the time of inpatient admission AND for which there is no documentation in the record indicating the date of first discovery; should be considered as hospital-acquired.
- Skin breakdown due to arterial occlusion, venous insufficiency, diabetes related neuropathy, or incontinence dermatitis are not pressure ulcers.
- The terms “actively dying” and “medically unstable” are terms used to characterize patients who cannot safely be turned for physiological reasons. Active dying is considered the last few days of life when blood flow to organs (e.g., brain, heart, kidneys) is decreasing, respiratory distress is increasing, and physiological instability is apparent, making turning unrealistic. "Medically unstable" people may have poor hemodynamic profiles or distress so severe that they cannot safely be turned for examination of the back, sacrum scapula, ischea, back of head, etc. The nature of the instability will vary e.g., some will require upright position to breathe, others cannot tolerate movement because of changes in hemodynamics (reduction) or intracranial pressure (increase).
- Eligible reporting units for this measure are defined by the allowable values for the data element, Type of Unit.

**Measure Analysis Suggestions:**
Facilities may also choose to collect data on additional unit types such as pediatric, psychiatric or rehabilitation.

**Sampling:** No

**Data Reported as:** Aggregate rate generated from count data reported as a proportion

**Selected References:**
- Horn SD, Bender SA, Ferguson ML, Smout RJ, Bergstrom N, Taler G, Cook AS, Sharkey SS, Voss AC. The National Pressure Ulcer Long-Term Care Study:


**Performance Measure Source / Developer:**
Collaborative Alliance for Nursing Outcomes (CALNOC)
**NQF-ENDORSED VOLUNTARY CONSENSUS STANDARDS FOR NURSING-SENSITIVE CARE PERFORMANCE MEASURES**

Measure Information Form

Measure Set: Nursing-Sensitive Care (NSC)

Performance Measure ID: NSC-3

<table>
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<th>Set Measure ID#</th>
<th>Performance Measure by Type of Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSC-3a</td>
<td>Patients that have vest and/or limb restraint (upper or lower body or both) on the day of the prevalence study – All Units – overall rate (NSC-3b, c, d, e, f and g)</td>
</tr>
<tr>
<td>NSC-3b</td>
<td>Patients that have vest and/or limb restraint (upper or lower body or both) on the day of the prevalence study by Type of Unit – Critical Care - adult</td>
</tr>
<tr>
<td>NSC-3c</td>
<td>Patients that have vest and/or limb restraint (upper or lower body or both) on the day of the prevalence study by Type of Unit – Step-down - adult</td>
</tr>
<tr>
<td>NSC-3d</td>
<td>Patients that have vest and/or limb restraint (upper or lower body or both) on the day of the prevalence study by Type of Unit – Medical - adult</td>
</tr>
<tr>
<td>NSC-3e</td>
<td>Patients that have vest and/or limb restraint (upper or lower body or both) on the day of the prevalence study by Type of Unit – Surgical - adult</td>
</tr>
<tr>
<td>NSC-3f</td>
<td>Patients that have vest and/or limb restraint (upper or lower body or both) on the day of the prevalence study by Type of Unit – Med-Surg Combined - adult</td>
</tr>
<tr>
<td>NSC-3g</td>
<td>Patients that have vest and/or limb restraint (upper or lower body or both) on the day of the prevalence study by Type of Unit – Mixed Acuity - adult</td>
</tr>
</tbody>
</table>

Performance Measure Name: Restraint Prevalence (vest and limb)

Description: Total number of patients that have vest and/or limb restraint (upper or lower body or both) on the day of the prevalence study.

Rationale:
The utilization of physical restraints in the acute care setting has increasingly been the subject of interest by healthcare researchers, practitioners, regulatory, and accrediting bodies. Restraint use has the potential to produce serious consequences including physical and psychological harm. Potential physical complications can include the development of pressure ulcers, nerve and joint injuries, and even death from strangulation. Clinical practice guidelines suggest that the incidence and/or prevalence of restraint use should be monitored and that a range of effective prevention strategies and alternative therapies be implemented. The use of physical restraints to prevent falls...
has been refuted because restraints limit mobility, contribute to injuries, and don’t prevent falls. Agostini and colleagues examined literature related to fall prevention via restraint and side rail use, as well as fall rates when restraints were removed. Six studies found that restraints were associated with increased injuries, and restraint and side rail removal did not increase fall rates. Evans, Wood, and Lambert also examined the literature and found 16 studies that examined restraint minimization, concluding that restraint-minimization programs involving effective staff education can reduce injuries and do not increase fall rates. By measuring the use of physical restraints at points in time (prevalence), a hospital can monitor its performance with a goal of reducing restraint use to the degree consistent with the patient population served, clinical services offered and medical necessity.

Type of Measure: Process

Improvement Noted as: A decrease in rate.

Numerator Statement: Patients that have a vest restraint and/or limb restraint (upper or lower or both) on the day of the prevalence study.

Included Populations: Not applicable.

Excluded Populations:
- Restraints that are only associated with medical, dental, diagnostic, or surgical procedures and is based on standard practice for the procedure (sometimes referred to as “treatment restraints”)
- seclusion
- restraint uses that are forensic or correctional restrictions used for security purposes unrelated to clinical care
- devices used to meet the assessed needs of a patient who requires adaptive support or a medical protective device

Data Elements:
- Physical Restraint
- Type of Restraint

Denominator Statement: All patients who are surveyed for the study.

Included Populations: Patients 18 years or older who are admitted to all eligible units that are surveyed for the study.

Excluded Populations:
- Patients less than 18 years of age
- Patients who are off the unit at the time of the prevalence study, i.e. surgery, x-ray, physical therapy, etc.

Data Elements:
- Admission Date
- Birthdate
- Prevalence Study Date
- Sex
- Type of Unit

Risk Adjustment: No

Data Collection Approach: Concurrent

Data Accuracy:
- Review and follow the Prevalence Study Methodology (see Appendix E)
- Each patient on the assigned unit should be observed (i.e., observations are not to be referred by staff for those patients thought to be restrained)
- Eligible reporting units for this measure are defined by the allowable values for the data element, Type of Unit.
- Observation Units (must operate 24 hours each day and not close overnight) are included under appropriate unit type (e.g., medical or surgical)

Measure Analysis Suggestions:
Facilities may also choose to collect data on additional unit types such as pediatric or rehabilitation.

Sampling: No

Data Reported as: Aggregate rate generated from count data reported as a proportion

Selected References:
Collaborative Alliance for Nursing Outcomes (CALNOC)
Measure Information Form

Measure Set: Nursing-Sensitive Care

Performance Measure ID: NSC-4

<table>
<thead>
<tr>
<th>Set Measure ID#</th>
<th>Performance Measure Name</th>
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</thead>
<tbody>
<tr>
<td>NSC-4b</td>
<td>Patient falls per 1,000 patient days by Type of Unit – Critical Care - adult</td>
</tr>
<tr>
<td>NSC-4c</td>
<td>Patient falls per 1,000 patient days by Type of Unit – Step-down - adult</td>
</tr>
<tr>
<td>NSC-4d</td>
<td>Patient falls per 1,000 patient days by Type of Unit – Medical - adult</td>
</tr>
<tr>
<td>NSC-4e</td>
<td>Patient falls per 1,000 patient days by Type of Unit – Surgical - adult</td>
</tr>
<tr>
<td>NSC-4f</td>
<td>Patient falls per 1,000 patient days by Type of Unit – Med-Surg Combined - adult</td>
</tr>
<tr>
<td>NSC-4g</td>
<td>Patient falls per 1,000 patient days by Type of Unit – Mixed Acuity - adult</td>
</tr>
</tbody>
</table>

Performance Measure Name: Patient Falls

Description: All documented falls with or without injury, experienced by patients in a calendar month.

Rationale: Patient falls occurring during hospitalization can result in serious and even potentially life threatening consequences for many patients. Efforts to reduce this adverse event have included the development of tools to assess and identify patients at risk of falling and the implementation of fall prevention protocols. More recently, research has suggested that staffing on patient care units, specifically the number of professional nurses, may impact the incidence of this patient outcome. Nurses are responsible for identifying patients who are at risk for falls and for developing a plan of care to minimize that risk. High performance measure rates may suggest the need to examine clinical and organizational processes related to the identification of, and care for, patients at risk of falling, and possibly staffing effectiveness on the unit.

Type of Measure: Outcome

Improvement Noted as: A decrease in the rate.

Numerator Statement: Total number of patient falls (with or without injury to the patient) during the calendar month.

Included Populations:
- Patient falls occurring while on an eligible reporting unit
- Assisted falls
- Repeat falls

**Excluded Populations:**
Falls by:
- Visitors
- Students
- Staff members
- Patients from eligible reporting units, however patient was not on unit at time of fall (e.g., patients falls in radiology department)
- Falls on other unit types (e.g., pediatric, obstetrical, rehab, etc)

**Data Elements:**
- Admission Date
- Birthdate
- Date of Event
- Event Type
- Number of Patient Falls
- Sex
- Type of Unit

**Denominator Statement:** Patient days by *Type of Unit* during the calendar month.

**Included Populations:**
- Inpatients, short stay patients, observation patients and same day surgery patients who receive care on eligible in-patient units for all or part of a day.
- Adult critical care, step-down, medical, surgical, medical-surgical combined, and mixed acuity units.
- Any age patient on an eligible reporting unit is included in the patient day count.

**Excluded Populations:** Other unit types (e.g., pediatric, obstetrical, rehab, etc)

**Data Elements:**
- Month
- Patient Days
- Type of Unit
- Year

**Risk Adjustment:** No

**Data Collection Approach:** Retrospective – data sources for required data elements include medical records, hospital risk management reports, incident reports, variance
reports, event reports, etc. Some hospitals may prefer to collect data concurrently at the time of report completion or filing.

**Data Accuracy:**

- Eligible reporting units for this measure are defined by the allowable values for the data element, *Type of Unit*. Data collection at the specific unit level captures data on patient outcomes and nurse staffing within a given unit. Therefore, for the purposes of this measure, patient falls that occur while off the unit are not counted in the unit-level reporting.

- An eligible reporting unit will report fall data by calendar month. In addition, each unit that reports fall data, must also collect patient day data for the same month (as outlined in the data element, *Patient Days* – also see Appendix D: Table *Patient Day Reporting Methods*) in order to calculate fall rates.

- Fall rate is calculated by multiplying the numerator by 1,000 and then dividing by the denominator.

**Measure Analysis Suggestions:** In order to further examine the issue of falls within your facility it may be useful to calculate the number of patients who were assessed, who were at risk and what their risk level was. It may also be useful to identify patient falls that involved staff intervention. To facilitate these analyses, additional data elements could be collected that are not required for calculating the primary measure rate.

Facilities may also choose to collect falls data on additional unit types such as pediatric, psychiatric or rehabilitation. With respect to pediatric unit type an additional exclusion is recommended.

Exclude: Developmental falls in pediatric patients, falls common in infants/toddlers as they learn to walk, turn, or run.

**Sampling:** No

**Data Reported As:** Aggregate rate generated from count data reported as a ratio.

**Selected References:**

• Unruh L. Licensed nurse staffing and adverse events in hospitals. Medical Care. 2003; 41(1):142-152.

Performance Measure Source / Developer:
American Nurses Association (ANA) – National Database for Nursing Quality Indicators (NDNQI)
**NQF-ENDORSED VOLUNTARY CONSENSUS STANDARDS FOR NURSING-SENSITIVE CARE PERFORMANCE MEASURES**

Measure Information Form

**Measure Set:** Nursing-Sensitive Care

**Performance Measure ID:** NSC-5

<table>
<thead>
<tr>
<th>Set Measure ID#</th>
<th>Performance Measure by Type of Unit</th>
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</thead>
<tbody>
<tr>
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<td>Patient falls with injury per 1,000 patient days by Type of Unit – Critical Care - adult</td>
</tr>
<tr>
<td>NSC-5c</td>
<td>Patient falls with injury per 1,000 patient days by Type of Unit – Step-down - adult</td>
</tr>
<tr>
<td>NSC-5d</td>
<td>Patient falls with injury per 1,000 patient days by Type of Unit – Medical - adult</td>
</tr>
<tr>
<td>NSC-5e</td>
<td>Patient falls with injury per 1,000 patient days by Type of Unit – Surgical - adult</td>
</tr>
<tr>
<td>NSC-5f</td>
<td>Patient falls with injury per 1,000 patient days by Type of Unit – Med-Surg Combined - adult</td>
</tr>
<tr>
<td>NSC-5g</td>
<td>Patient falls with injury per 1,000 patient days by Type of Unit – Mixed Acuity - adult</td>
</tr>
</tbody>
</table>

**Performance Measure Name:** Falls with Injury

**Description:** All documented patient falls with an injury level of minor (2) or greater.

**Rationale:** Patient falls occurring during hospitalization can result in serious and even potentially life threatening consequences for many patients. Nurses are responsible for identifying patients who are at risk for falls and for developing a plan of care to minimize that risk. Short staffing, nurse inexperience and inadequate nurse knowledge could place patients at risk for injury. High performance measure rates may suggest the need to examine clinical and organizational processes related to the identification of, and care for, patients at risk of falling, and possibly staffing effectiveness on the unit.

**Type of Measure:** Outcome

**Improvement Noted as:** A decrease in the rate.

**Numerator Statement:** Number of patient falls with an injury level of minor or greater during the calendar month.

**Included Populations:**
- Patient falls occurring while on an eligible reporting unit
- Falls with Fall Injury Level of 2 “minor” or greater
Excluded Populations:
Falls by:
- Visitors
- Students
- Staff members
- Falls by patients from eligible reporting unit, however patient was not on unit at time of fall (e.g., patients falls in radiology department)
- Falls on other unit types (e.g., pediatric, obstetrical, rehab, etc)
- Falls with *Fall Injury Level* of 1 “none”

Data Elements:
- *Admission Date*
- *Birthdate*
- *Date of Event*
- *Event Type*
- *Fall Injury Level*
- *Sex*
- *Type of Unit*

Denominator Statement: Patient days by *Type of Unit* during the calendar month.

Included Populations:
- Inpatients, short stay patients, observation patients and same day surgery patients who receive care on eligible in-patient units for all or part of a day.
- Adult critical care, step-down, medical, surgical, medical-surgical combined, and mixed acuity units.

Excluded Populations: Other unit types (e.g., pediatric, obstetrical, rehab, etc.)

Data Elements:
- *Month*
- *Patient Days*
- *Type of Unit*
- *Year*

Risk Adjustment: No

Data Collection Approach: Retrospective – data source for required data elements include medical records, hospital risk management reports, incident reports, variance reports, event reports, etc. Some hospitals may prefer to collect data concurrently at the time of report completion or filing.

Data Accuracy:
• “Injury Level” When the initial fall report is written by the staff, the extent of injury may not yet be known. A method to follow up on the patient’s condition after 24 hours from the fall must be established.
• A fall injury level of death may be selected only if the fall caused the death of the patient, not if dying caused the fall.
• Eligible reporting units for this measure are defined by the allowable values for the data element, Type of Unit.
• An eligible reporting unit will report fall data by calendar month. In addition, each unit that reports fall data must also collect patient day data for the same month (as outlined in the data element, Patient Days – also see Appendix D: Table Patient Day Reporting Methods) in order to calculate fall with injury rates.
• Fall rate is calculated by multiplying the numerator by 1,000 and then dividing by the denominator.

Measure Analysis Suggestions: The data element Fall Injury Level captures injury level outcomes used for the aggregate number of injury falls which is required for rate calculation and provides the opportunity to further analyze fall injuries by severity.

Facilities may also choose to collect falls data on additional unit types such as pediatric, psychiatric or rehabilitation. With respect to pediatric unit type an additional exclusion is recommended.

Exclude: Developmental falls in pediatric patients, falls common in infants/toddlers as they learn to walk, turn, or run.

Sampling: No

Data Reported As: Aggregate rate generated from count data reported as a ratio.

Selected References:
- Unruh L. Licensed nurse staffing and adverse events in hospitals. Medical Care. 2003; 41(1):142-152.

**Performance Measure Source / Developer:**
American Nurses Association (ANA) – National Database for Nursing Quality Indicators (NDNQI)
**NQF-ENDORSED VOLUNTARY CONSENSUS STANDARDS FOR NURSING-SENSITIVE CARE PERFORMANCE MEASURES**

Measure Information Form

**Measure Set:** Nursing-Sensitive Care (NSC)

**Performance Measure ID:** NSC-6

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<th>Performance Measure by ICU Location</th>
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</thead>
<tbody>
<tr>
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<td>Intensive Care Unit (ICU) Catheter-Associated Urinary Tract Infection CAUTI – <strong>All ICU Locations</strong> (NSC-6b through NSC-6l)</td>
</tr>
<tr>
<td>NSC-6b</td>
<td>Intensive Care Unit (ICU) Catheter-Associated Urinary Tract Infection CAUTI by Location – <strong>Burn</strong> [Burn Critical Care B-Adult]</td>
</tr>
<tr>
<td>NSC-6c</td>
<td>Intensive Care Unit (ICU) Catheter-Associated Urinary Tract Infection CAUTI by Location – <strong>Coronary</strong> [Medical Cardiac Critical Care MC-Adult]</td>
</tr>
<tr>
<td>NSC-6d</td>
<td>Intensive Care Unit (ICU) Catheter-Associated Urinary Tract Infection CAUTI by Location – <strong>Cardiothoracic</strong> [Surgical Cardiothoracic Critical Care Adult SCT-Adult]</td>
</tr>
<tr>
<td>NSC-6e</td>
<td>Intensive Care Unit (ICU) Catheter-Associated Urinary Tract Infection CAUTI by Location – <strong>Medical</strong> [Medical Critical Adult M-Adult]</td>
</tr>
<tr>
<td>NSC-6f</td>
<td>Intensive Care Unit (ICU) Catheter-Associated Urinary Tract Infection CAUTI by Location – <strong>Medical/Surgical Major Teaching Hospital</strong> [Combined MS – Adult Major Teaching Hospital MS1]</td>
</tr>
<tr>
<td>NSC-6g</td>
<td>Intensive Care Unit (ICU) Catheter-Associated Urinary Tract Infection CAUTI by Location – <strong>Medical/Surgical Other Hospital</strong> [Combined MS-Adult Other MS0]</td>
</tr>
<tr>
<td>NSC-6h</td>
<td>Intensive Care Unit (ICU) Catheter-Associated Urinary Tract Infection CAUTI by Location – <strong>Neurologic</strong> [Neurologic Critical Care N-Adult]</td>
</tr>
<tr>
<td>NSC-6i</td>
<td>Intensive Care Unit (ICU) Catheter-Associated Urinary Tract Infection CAUTI by Location – <strong>Neurosurgical</strong> [Neurosurgical Critical Care Adult NS-Adult]</td>
</tr>
<tr>
<td>NSC-6j</td>
<td>Intensive Care Unit (ICU) Catheter-Associated Urinary Tract Infection CAUTI by Location – <strong>Respiratory</strong> [Respiratory Critical Care R-Adult]</td>
</tr>
<tr>
<td>NSC-6k</td>
<td>Intensive Care Unit (ICU) Catheter-Associated Urinary Tract Infection CAUTI by Location – <strong>Surgical</strong> [Surgical Critical Care Adult S-Adult]</td>
</tr>
<tr>
<td>NSC-6l</td>
<td>Intensive Care Unit (ICU) Catheter-Associated Urinary Tract Infection CAUTI by Location – <strong>Trauma</strong> [Trauma Critical Care Adult T-Adult]</td>
</tr>
<tr>
<td>NSC-6m</td>
<td>Intensive Care Unit (ICU) Catheter-Associated Urinary Tract Infection CAUTI by Location – <strong>Burn</strong> [Burn Critical Care Pediatric, B-Ped]</td>
</tr>
<tr>
<td>NSC-6n</td>
<td>Intensive Care Unit (ICU) Catheter-Associated Urinary Tract Infection CAUTI by Location – <strong>Cardiothoracic</strong> [Cardiothoracic Critical Care Pediatric CT-Ped]</td>
</tr>
<tr>
<td>NSC-6o</td>
<td>Intensive Care Unit (ICU) Catheter-Associated Urinary Tract Infection CAUTI by Location – <strong>Other</strong> [Other Critical Care Other O-Adult]</td>
</tr>
</tbody>
</table>
Performance Measure Name: Catheter-Associated Urinary Tract Infection (CAUTI)
Rate for ICU patients

Description: The rate of CAUTIs in ICU patients.

Rationale: Patients in the ICU are at high risk for infections. The urinary tract is the most common site of healthcare associated (nosocomial) infection and virtually all urinary tract infections are caused by instrumentation of the urinary tract. For patients with indwelling urethral catheters, rates of infection increase as the duration of catheterization increases. Catheter-associated urinary tract infections (CAUTI) can lead to other complications such as cystitis, pyelonephritis, and gram-negative bacteremia, prostatitis, epididymitis, and orchitis in males. Complications associated with CAUTI cause discomfort to the patient, prolonged hospital stay, and increased cost and mortality. High rates may suggest the need to examine the clinical and organizational processes related to the care of patients with indwelling urinary catheters including adherence to recommended guidelines.

Type of Measure: Outcome

Improvement Noted as: A decrease in the rate

Numerator Statement: The number of CAUTIs for ICU patients

Included Populations: Infections meeting CDC case definitions of symptomatic UTI (see Appendix F).

Excluded Populations:
- Other infections of the urinary tract
- CAUTIs present or incubating on admission to the ICU
- CAUTI if the Location of Attribution is a non-ICU location
Data Elements:
- Date of Event
- Device
- Event Type
- Location of Attribution
- Specific Event Type

Denominator Statement: The number of indwelling urinary catheter days for ICU patients by ICU location.

Included Populations: Patients in adult ICU locations (coronary [medical cardiac], cardiothoracic, medical, medical-surgical [major teaching hospital/other hospital], neurosurgical, neurologic, surgical, trauma, burn, and respiratory), and pediatric ICU locations (burn, cardiothoracic, medical, medical-surgical [major teaching hospital/other hospital], neurosurgical, respiratory, and surgical).

Excluded Populations: Patients in non-ICU areas

Data Elements:
- Indwelling Urinary Catheter Days
- Location
- Month
- Year

Risk Adjustment: No

Data Collection Approach:
It is recommended that the numerator and denominator data elements be collected concurrently.

Data Accuracy:
- Health care organizations will need to develop a mechanism for tracking indwelling urinary catheter days for patients in the ICU if they do not currently have a process in place.
- The number of patients with an indwelling urinary catheter device is collected daily, at the same time each day. These daily counts are summed for a monthly total of urinary catheter days. Data accuracy is enhanced when denominator data are collected in a consistent manner (e.g., at the same time each day).
- Data accuracy is enhanced when all event definitions are used without modification. It is recommended that a trained infection control professional (ICP) collect the numerator data for this measure as some interpretation will be required. The patient is followed for evidence of infection for 48 hours after removal of the urinary catheter or for 48 hours after discharge from the ICU, whichever comes first.
• There is no minimum period of time that the catheter must be in place in order for the UTI to be considered catheter associated.
• Report only those events that are associated with an eligible reporting location and are catheter-associated (patient had an indwelling urinary catheter at the time of or within 48 hours before the onset of the UTI). If a patient has a catheter inserted on admission to the ICU and develops signs and symptoms of UTI within the first 48 hours, and there is no evidence of preexisting UTI (e.g., negative lab values, no signs or symptoms), then if the infection otherwise meets criteria, it should be called a CAUTI and should be attributed to the ICU.
• For category Adult Major Teaching Hospital MS1; major teaching status is defined as a hospital that is an important part of the teaching program of a medical school and the majority of medical students rotate through multiple clinical services.

Measure Analysis Suggestions: The CAUTI rate per 1,000 urinary catheter-days is calculated by dividing the number of CAUTIs by the number of catheter-days and multiplying the result by 1,000. This calculation is performed for the total number of CAUTI and total number of catheter-days for a hospital-level rate, as well as separately for each different ICU location.

Facilities may also choose to collect data on non-ICU locations such as medical, surgical or step down units.

Sampling: No

Data Reported as: Overall aggregate rate for all locations and stratified rates by data element Location, generated from count data reported as a ratio.

Selected References:

Performance Measure Source / Developer: Centers for Disease Control and Prevention (CDC)
**NQF-ENDORSED VOLUNTARY CONSENSUS STANDARDS FOR NURSING-SENSITIVE CARE PERFORMANCE MEASURES**

Measure Information Form

**Measure Set:** Nursing-Sensitive Care (NSC)

**Performance Measure Identifier:** NSC-7

<table>
<thead>
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<th>Set Measure ID#</th>
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</tr>
</thead>
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<td>NSC-7.1a</td>
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</tr>
<tr>
<td>NSC-7.1b</td>
<td>Intensive Care Unit (ICU) Central Line-Associated Bloodstream Infection CLABSI by Location – <strong>Burn</strong> [Burn Critical Care B-Adult]</td>
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<td>Intensive Care Unit (ICU) Central Line-Associated Bloodstream Infection CLABSI by Location – <strong>Coronary</strong> [Medical Cardiac Critical Care MC-Adult]</td>
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<tr>
<td>NSC –7.1d</td>
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<tr>
<td>NSC-7.1e</td>
<td>Intensive Care Unit (ICU) Central Line-Associated Bloodstream Infection CLABSI by Location – <strong>Medical</strong> [Medical Critical Adult M-Adult]</td>
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<tr>
<td>NSC-7.1f</td>
<td>Intensive Care Unit (ICU) Central Line-Associated Bloodstream Infection CLABSI by Location – <strong>Medical/Surgical Major Teaching Hospital</strong> [Combined MS – Adult Major Teaching Hospital MS1]</td>
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<tr>
<td>NSC-7.1h</td>
<td>Intensive Care Unit (ICU) Central Line-Associated Bloodstream Infection CLABSI by Location – <strong>Neurologic</strong> [Neurologic Critical Care N-Adult]</td>
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<tr>
<td>NSC-7.1i</td>
<td>Intensive Care Unit (ICU) Central Line-Associated Bloodstream Infection CLABSI by Location – <strong>Neurosurgical</strong> [Neurosurgical Critical Care Adult NS-Adult]</td>
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<td>Intensive Care Unit (ICU) Central Line-Associated Bloodstream Infection CLABSI by Location – <strong>Respiratory</strong> [Respiratory Critical Care R-Adult]</td>
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<tr>
<td>NSC-7.1l</td>
<td>Intensive Care Unit (ICU) Central Line-Associated Bloodstream Infection CLABSI by Location – <strong>Trauma</strong> [Trauma Critical Care Adult T-Adult]</td>
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<td>NSC-7.1m</td>
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<tr>
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<tr>
<td>NSC-7.1o</td>
<td>Intensive Care Unit (ICU) Urinary Catheter-Associated Urinary Tract Infection CAUTI by Location – <strong>Medical</strong> [Medical Critical Care Pediatric, M-Ped]</td>
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<tr>
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<tr>
<td>NSC-7.1r</td>
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<tr>
<td>NSC-7.1s</td>
<td>Intensive Care Unit (ICU) Central Line-Associated Bloodstream Infection CLABSI by Location – <strong>Surgical</strong> [Surgical Critical Care Pediatric, S-Ped]</td>
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<tr>
<td>NSC-7.1t</td>
<td>Intensive Care Unit (ICU) Central Line-Associated Bloodstream Infection CLABSI by Location – <strong>Trauma</strong> [Trauma Critical Care Pediatric, T-Ped]</td>
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<tr>
<td>NSC-7.2a</td>
<td>Neonatal Intensive Care Unit (NICU) Central Line-Associated Bloodstream Infection <strong>CLABSI by all birth weight categories</strong> (NSC-7.2b through NSC-7.2f)</td>
</tr>
<tr>
<td>NSC-7.2b</td>
<td>Neonatal Intensive Care Unit (NICU) Central Line-Associated Bloodstream Infection <strong>CLABSI by BW ≤750 g</strong></td>
</tr>
<tr>
<td>NSC-7.2c</td>
<td>Neonatal Intensive Care Unit (NICU) Central Line-Associated Bloodstream Infection <strong>CLABSI by BW 751 – 1,000 g</strong></td>
</tr>
<tr>
<td>NSC-7.2d</td>
<td>Neonatal Intensive Care Unit (NICU) Central Line-Associated Bloodstream Infection <strong>CLABSI by BW 1,001 – 1,500 g</strong></td>
</tr>
<tr>
<td>NSC-7.2e</td>
<td>Neonatal Intensive Care Unit (NICU) Central Line-Associated Bloodstream Infection <strong>CLABSI by BW 1,501 – 2,500 g</strong></td>
</tr>
<tr>
<td>NSC-7.2f</td>
<td>Neonatal Intensive Care Unit (NICU) Central Line-Associated Bloodstream Infection <strong>CLABSI by BW &gt;2,500 g</strong></td>
</tr>
<tr>
<td>NSC-7.3a</td>
<td>Neonatal Intensive Care Unit (NICU) Umbilical Catheter-Associated Bloodstream Infection <strong>UCABSI by all birth weight categories</strong> (NSC-7.3b through NSC-7.3f)</td>
</tr>
<tr>
<td>NSC-7.3b</td>
<td>Neonatal Intensive Care Unit (NICU) Umbilical Catheter-Associated Bloodstream Infection <strong>UCABSI by BW ≤750 g</strong></td>
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<td>NSC-7.3c</td>
<td>Neonatal Intensive Care Unit (NICU) Umbilical Catheter-Associated Bloodstream Infection <strong>UBABSI by BW 751 – 1,000 g</strong></td>
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<td>NSC-7.3d</td>
<td>Neonatal Intensive Care Unit (NICU) Umbilical Catheter-Associated Bloodstream Infection <strong>UCABSI by BW 1,001 – 1,500 g</strong></td>
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<td>NSC-7.3e</td>
<td>Neonatal Intensive Care Unit (NICU) Umbilical Catheter-Associated Bloodstream Infection <strong>UCABSI by BW 1,501 – 2,500 g</strong></td>
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<tr>
<td>NSC-7.3f</td>
<td>Neonatal Intensive Care Unit (NICU) Umbilical Catheter-Associated Bloodstream Infection <strong>UCABSI by BW &gt;2,500 g</strong></td>
</tr>
</tbody>
</table>
**Performance Measure Name:** Central Line-Associated Bloodstream Infection Rate for ICU and NICU patients

**Description:**
- NSC-7.1  The rate of CLABSI for ICU Locations
- NSC-7.2  The rate of CLABSI in the NICU Location
- NSC-7.3  The rate of UCABSI in the NICU Location

**Rationale:** Intensive care unit (ICU) and Neonatal Intensive Care Unit (NICU) patients are at high risk for infections associated with the use of invasive devices. Although bloodstream infections often occur secondarily to other infections, they may result from contamination of intravascular catheters or occur spontaneously in immunosuppressed patients. Critically ill infants have the highest infection rate of all pediatric patients and one of the most important risk factors for healthcare associated (nosocomial) infections is birth weight. Infants who weigh < 750 grams at birth are at substantially greater risk of infection than those who weigh >2,500 grams. Bloodstream infections greatly prolong hospitalizations and increase resource utilization. Infections are also one of the leading causes of death in the United States. High rates may suggest the need to examine the clinical and organizational processes related to the care of patients with central lines, including adherence to recommended guidelines.

**Type of Measure:** Outcome

**Improvement Noted as:** A decrease in the rate.

**Numerator Statement:** The number of CLABSI or UCABSI for ICU or NICU patients
### Included Populations

- Infections meeting CDC case definitions for laboratory-confirmed bloodstream infections (LCBI) (see appendix F)
- Infections in patients with one or more central lines
- Infections in patients in eligible adult and pediatric ICU locations.

### Excluded Populations

- Secondary bloodstream infections
- BSI present or incubating on admission to the ICU
- Clinical sepsis
- Infections in patients if the Location of Attribution is a non-ICU location

### Data Elements

- **NSC-7.1**
  - *Date of Event Device*
  - *Event Type*
  - *Location of Attribution*
  - *Specific Event Type*

- **NSC-7.2**
  - *Birth Weight*
  - *Date of Event Device*
  - *Event Type*
  - *Specific Event Type*

- **NSC-7.3**
  - *Birth Weight*
  - *Date of Event Device*
  - *Event Type*
  - *Specific Event Type*

### Denominator Statement:

The number of central line days by ICU/NICU, or umbilical catheter days by NICU
Included Populations
- ICU patients by ICU Locations: coronary, cardiothoracic, medical, medical-surgical (major teaching hospital/other hospital), neurosurgical, pediatric, surgical, trauma, burn, and respiratory.
- Any age patient in an eligible reporting location is included

NICU patients by birth weight category:
- $<750\text{ g}$
- $751 – 1,000\text{ g}$
- $1,001 – 1,500\text{ g}$
- $1,501 – 2,500\text{ g}$
- $>2500\text{ g}$
- Central line days for patients with a central line only
- Patients transferred from other hospitals

Excluded Populations
- Central line days for patients in non-ICU areas
- Central line days for patients in non-NICU areas
- Central line days for patients with an umbilical catheter only
- Central line days for patients with a central line and an umbilical catheter
- Umbilical catheter days for patients with an umbilical catheter only
- Umbilical catheter days for patients with a central line and an umbilical catheter in place
- Patients transferred from other hospitals

Data Elements
<table>
<thead>
<tr>
<th>NSC-7.1</th>
<th>NSC-7.2</th>
<th>NSC-7.3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Central Line Days-ICU</strong>&lt;br&gt;Device Location Month Year</td>
<td><strong>Birth Weight Central Line Days – NICU</strong>&lt;br&gt;Device Location Month Year</td>
<td><strong>Birth Weight Device Location Umbilical Catheter Days-NICU</strong> Month Year</td>
</tr>
</tbody>
</table>

Risk Adjustment: No

Data Collection Approach: It is recommended that both the numerator and denominator data elements be collected concurrently.

Data Accuracy:
- Health care organizations will need to develop a mechanism for tracking central line days for patients in the ICU and central line/umbilical catheter days for patients in NICU if they do not currently have a process in place.
The number of patients with a central line (ICU/NICU) or an umbilical catheter (NICU) is collected daily, at the same time each day. These daily counts are summed for a monthly total of central line or umbilical catheter days. Data accuracy is enhanced when denominator data are collected in a consistent manner (e.g., at the same time each day).

Data accuracy is enhanced when all event definitions are used without modification. It is recommended that a trained infection control professional (ICP) collect the numerator data for this measure as some interpretation will be required. The ICU patient is followed for evidence of infection for 48 hours after the removal of the central line or for 48 hours after discharge from the ICU. The NICU patient is followed for evidence of infection for 48 hours after the removal of the central line/umbilical catheter or for 48 hours after discharge from the NICU.

Report only those events that are associated with an eligible reporting location and are central line/umbilical catheter-associated (patient had a central line and/or an umbilical catheter at the time of or within 48 hours before the onset of the BSI).

NICU patients with both a central line and an umbilical catheter in place on a given day are counted as one umbilical catheter day.

ICU/NICU patients with more than one central line in place on a given day are counted as one central line day.

For category Adult Major Teaching Hospital MS1; major teaching status is defined as a hospital that is an important part of the teaching program of a medical school and the majority of medical students rotate through multiple clinical services.

Measure Analysis Suggestions:

For ICU locations: The CLABSI rate per 1,000 central line days is calculated by dividing the number of CLABSIs by the number of central line days and multiplying the result by 1,000. This calculation is performed for the total number of CLABSIs and total number of central line days for a hospital-level rate, as well as separately for the different adult ICU locations.

For NICU location: The CLABSI rate per 1,000 central line days is calculated by dividing the number of CLABSIs by the number of central line days and multiplying the result by 1,000. This calculation is performed for the total number of CLABSIs and total number of central line days for a hospital-level rate, as well as separately for the different NICU locations and birth weight categories.

For NICU location: The UCABSI rate per 1,000 umbilical catheter days is calculated by dividing the number of UCABSIs by the number of umbilical catheter days and multiplying the result by 1,000. This calculation is performed for the total number of UCABSIs and total number of central line days for a hospital-level rate, as well as separately for the different NICU locations and birth weight categories.

Facilities may also choose to collect data on non-ICU locations such as medical, surgical or step down units.
Sampling: No.

Data Reported as: Overall aggregate rate for all locations and stratified rates by data elements Location and Birth Weight, generated from count data reported as a ratio.

Selected References:

Performance Measure Source / Developer:
Centers for Disease Control and Prevention (CDC)
**NQF-ENDORSED VOLUNTARY CONSENSUS STANDARDS FOR NURSING-SENSITIVE CARE PERFORMANCE MEASURES**

Measure Information Form

**Measure Set:** Nursing-Sensitive Care (NSC)

**Performance Measure Identifier:** NSC-8

<table>
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<th>Set Measure ID#</th>
<th>Performance Measure by ICU Location and Birth weight Category</th>
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<td>NSC-8.1b</td>
<td>Intensive Care Unit (ICU) Ventilator-Associated Pneumonia VAP by Location – <em>Burn</em> [Burn Critical Care B-Adult]</td>
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<tr>
<td>NSC-8.1c</td>
<td>Intensive Care Unit (ICU) Ventilator-Associated Pneumonia VAP by Location – <em>Coronary</em> [Medical Cardiac Critical Care MC- Adult]</td>
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<tr>
<td>NSC-8.1d</td>
<td>Intensive Care Unit (ICU) Ventilator-Associated Pneumonia VAP by Location – <em>Cardiothoracic</em> [Surgical Cardiothoracic Critical Care Adult SCT-Adult]</td>
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<tr>
<td>NSC-8.1e</td>
<td>Intensive Care Unit (ICU) Ventilator-Associated Pneumonia VAP by Location – <em>Medical</em> [Medical Critical Adult M-Adult]</td>
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<td>NSC-8.1f</td>
<td>Intensive Care Unit (ICU) Ventilator-Associated Pneumonia VAP by Location – <em>Medical/Surgical Major Teaching Hospital</em> [Combined MS – Adult Major Teaching Hospital MS1]</td>
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<tr>
<td>NSC-8.1g</td>
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<td>NSC-8.1h</td>
<td>Intensive Care Unit (ICU) Ventilator-Associated Pneumonia VAP by Location – <em>Neurologic</em> [Neurologic Critical Care N-Adult]</td>
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<td>NSC-8.1i</td>
<td>Intensive Care Unit (ICU) Ventilator-Associated Pneumonia VAP by Location – <em>Neurosurgical</em> [Neurosurgical Critical Care Adult NS-Adult]</td>
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<tr>
<td>NSC-8.1j</td>
<td>Intensive Care Unit (ICU) Ventilator-Associated Pneumonia VAP by Location – <em>Respiratory</em> [Respiratory Critical Care R-Adult]</td>
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<td>Intensive Care Unit (ICU) Ventilator-Associated Pneumonia VAP by Location – <em>Surgical</em> [Surgical Critical Care Adult S-Adult]</td>
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<td>NSC-8.1l</td>
<td>Intensive Care Unit (ICU) Ventilator-Associated Pneumonia VAP by Location – <em>Trauma</em> [Trauma Critical Care Adult T-Adult]</td>
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<tr>
<td>NSC-8.1m</td>
<td>Intensive Care Unit (ICU) Ventilator-Associated Pneumonia VAP by Location – <em>Burn</em> [Burn Critical Care Pediatric, B-Ped]</td>
</tr>
<tr>
<td>NSC-8.1n</td>
<td>Intensive Care Unit (ICU) Ventilator-Associated Pneumonia VAP by Location – <em>Cardiothoracic</em> [Cardiothoracic Critical Care Pediatric CT-Ped]</td>
</tr>
<tr>
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<td>Intensive Care Unit (ICU) Ventilator-Associated Pneumonia VAP by</td>
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<tr>
<td>Location – Medical</td>
<td>Intensive Care Unit (ICU) Ventilator-Associated Pneumonia VAP by Location – Medical-Surgical</td>
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<td>------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>NSC-8.1p</td>
<td>Medical Critical Care Pediatric, M-Ped</td>
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<tr>
<td>NSC-8.1q</td>
<td>Neosurgical Critical Care Pediatric, NS-Ped</td>
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<tr>
<td>NSC-8.1r</td>
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<tr>
<td>NSC-8.2a</td>
<td>Neonatal Intensive Care Unit (NICU) Ventilator-Associated Pneumonia VAP by all birth weight categories</td>
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<tr>
<td>NSC-8.2b</td>
<td>BW ≤750 g</td>
</tr>
<tr>
<td>NSC-8.2c</td>
<td>BW 751 – 1,000 g</td>
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<tr>
<td>NSC-8.2d</td>
<td>BW 1,001 – 1,500 g</td>
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<tr>
<td>NSC-8.2e</td>
<td>BW 1,501 – 2,500 g</td>
</tr>
<tr>
<td>NSC-8.2f</td>
<td>BW &gt;2,500 g</td>
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</tbody>
</table>

**Performance Measure Name:** Ventilator-Associated Pneumonia Rate for ICU and NICU patients

**Description:**
NSC-8.1 The rate of VAPs for ICU Locations
NSC-8.2 The rate of VAPs for NICU Locations

**Rationale:**
Pneumonia is the second most common healthcare associated (nosocomial) infection in the United States and is associated with substantial morbidity and mortality. Patients with mechanically-assisted ventilation have a high risk of developing health-care associated pneumonia. Prevention and control of health-care associated pneumonia is discussed in the CDC Guidelines for Preventing Health-Care-Associated Pneumonia. The Guideline strongly recommends that surveillance be conducted for bacterial pneumonia in ICU patients who are mechanically ventilated to facilitate the identification of trends and comparative analysis. High rates may suggest the need to examine the clinical and organizational processes related to the care of patients on ventilators including adherence to recommended guidelines.

**Type of Measure:** Outcome
Improvement Noted: A decrease in the rate.

Numerator Statement: The number of VAPs for ICU or NICU patients

<table>
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<tr>
<th>NSC-8.1</th>
<th>NSC-8.2</th>
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<tr>
<td><strong>Included Populations</strong></td>
<td><strong>Included Populations</strong></td>
</tr>
<tr>
<td>Pneumonia meeting the CDC case definitions (see Appendix F)</td>
<td>Pneumonia meeting the CDC case definitions (see Appendix F)</td>
</tr>
<tr>
<td><strong>Excluded Populations</strong></td>
<td><strong>Excluded Populations</strong></td>
</tr>
<tr>
<td>• Pneumonia present or incubating on admission to the ICU</td>
<td>• Pneumonia present or incubating on admission to the NICU</td>
</tr>
<tr>
<td>• Infections in patients if the <em>Location of Attribution</em> is a non-ICU location</td>
<td>• Pneumonia in neonates in non-NICU areas</td>
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<tr>
<td>• Pneumonia in patients in non-ICU areas</td>
<td>• Infections in neonates if the <em>Location of Attribution</em> is a non-ICU location</td>
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<td><em>Specific Event Type</em></td>
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</table>

Denominator Statement: The number of ventilator days by ICU/NICU

<table>
<thead>
<tr>
<th>NSC-8.1</th>
<th>NSC-8.2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Included Populations</strong></td>
<td><strong>Included Populations</strong></td>
</tr>
<tr>
<td>ICU patients by ICU location: coronary, cardiothoracic, medical, medical-surgical (major teaching hospital/other hospital), neurosurgical, pediatric, surgical, trauma, burn, and respiratory. Any age patient in an eligible reporting location is included.</td>
<td>NICU neonates by birth weight category: ≤ 750 g; 751-1,000 g; 1,001-1,500 g; 1,501-2,500 g; &gt;2,500 g.</td>
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<tr>
<td><strong>Excluded Populations</strong></td>
<td><strong>Excluded Populations</strong></td>
</tr>
<tr>
<td>Patients in non-ICU locations</td>
<td>Neonates in non-NICU locations</td>
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<td><em>Ventilator Days</em></td>
</tr>
<tr>
<td></td>
<td><em>Year</em></td>
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</tbody>
</table>

Risk Adjustment: No
Data Collection Approach: It is recommended that the numerator and denominator data elements be collected concurrently.

Data Accuracy:

- Health care organizations will need to develop a mechanism for tracking ventilator days for patients in the ICU/NICU if they do not currently have a process in place.
- The number of patients with a ventilator is collected daily, at the same time each day. These daily counts are summed for a monthly total of ventilator days. Data accuracy is enhanced when denominator data are collected in a consistent manner (e.g., at the same time each day).
- Data accuracy is enhanced when all event definitions are used without modification (e.g., at the same time each day). It is recommended that a trained infection control professional (ICP) collect the numerator data for this measure as some interpretation will be required. The ICU patient is followed for evidence of infection for 48 hours after the removal from the ventilator or for 48 hours after discharge from the ICU.
- There is no minimum period of time that the ventilator must be in place in order for the PNEU to be considered ventilator-associated.
- Report only those events that are associated with the nursing care area where the patient was assigned when the infection was acquired and are ventilator-associated (patient was intubated and ventilated at the time of or within 48 hours before the onset of the event).
- Lung expansion devices such as intermittent positive pressure breathing (IPPB); nasal positive end-expiratory pressure (PEEP), and continuous nasal positive airway pressure (CPAP, hypo CPAP) are not considered ventilators unless delivered via tracheostomy or endotracheal intubation (e.g., ET-CPAP).
- There is a hierarchy of specific categories within the major site pneumonia. Even if a patient meets criteria for more than one specific site, report only one:
  o If a patient meets criteria for both PNU1 and PNU2, report PNU2
  o If a patient meets criteria for both PNU2 and PNU3, report PNU3
  o If a patient meets criteria for both PNU1 and PNU3, report PNU3
- Report concurrent lower respiratory tract infection (e.g., abscess or emphysema) and pneumonia with the same organism(s) as pneumonia.
- For category NSC-8f Adult Major Teaching Hospital MS1; major teaching status is defined as a hospital that is an important part of the teaching program of a medical school and the majority of medical students rotate through multiple clinical services.

Measure Analysis Suggestions:

- For ICU Locations: The VAP rate per 1,000 ventilator-days is calculated by dividing the number of VAPs by the number of ventilator-days and multiplying the result by 1,000. This calculation is performed for the total number of VAPs and total number of ventilator-days for a hospital-level rate, as well as separately for the different ICU location.
For NICU Locations: The VAP rate per 1,000 ventilator-days is calculated by dividing the number of VAPs by the number of ventilator-days and multiplying the result by 1,000. This calculation is performed for the total number of VAPs and total number of ventilator-days for a hospital-level rate, as well as separately for the different NICU locations and birth weight categories.

Facilities may also choose to collect data on non-ICU locations where patients are ventilated such as medical, surgical or step down units.

**Sampling:** No

**Data Reported as:** Overall aggregate rate for all locations and stratified rates by data elements *Location and Birth Weight*, generated from count data reported as a ratio.

**Selected References:**

**Performance Measure Source / Developer:** Centers for Disease Control and Prevention (CDC)
# Measure Information Form

**Measure Set:** Nursing-Sensitive Care

<table>
<thead>
<tr>
<th>Performance Measure Identifier: NSC-9</th>
<th>Performance Measure Name</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NSC-9.1b</strong></td>
<td>Nursing hours worked by RNs by Type of Unit – <strong>Critical Care</strong> - adult</td>
</tr>
<tr>
<td><strong>NSC-9.1c</strong></td>
<td>Nursing hours worked by RNs by Type of Unit – <strong>Step-down</strong> - adult</td>
</tr>
<tr>
<td><strong>NSC-9.1d</strong></td>
<td>Nursing hours worked by RNs by Type of Unit – <strong>Medical</strong> - adult</td>
</tr>
<tr>
<td><strong>NSC-9.1e</strong></td>
<td>Nursing hours worked by RNs by Type of Unit – <strong>Surgical</strong> - adult</td>
</tr>
<tr>
<td><strong>NSC-9.1f</strong></td>
<td>Nursing hours worked by RNs by Type of Unit – <strong>Med-Surg Combined</strong> - adult</td>
</tr>
<tr>
<td><strong>NSC-9.1g</strong></td>
<td>Nursing hours worked by RNs by Type of Unit – <strong>Mixed Acuity</strong> - adult</td>
</tr>
<tr>
<td><strong>NSC-9.2b</strong></td>
<td>Nursing hours worked by LPNs/LVNs by Type of Unit - <strong>Critical Care</strong> - adult</td>
</tr>
<tr>
<td><strong>NSC-9.2c</strong></td>
<td>Nursing hours worked by LPNs/LVNs by Type of Unit – <strong>Step-down</strong> - adult</td>
</tr>
<tr>
<td><strong>NSC-9.2d</strong></td>
<td>Nursing hours worked by LPNs/LVNs by Type of Unit – <strong>Medical</strong> - adult</td>
</tr>
<tr>
<td><strong>NSC-9.2e</strong></td>
<td>Nursing hours worked by LPNs/LVNs by Type of Unit – <strong>Surgical</strong> - adult</td>
</tr>
<tr>
<td><strong>NSC-9.2f</strong></td>
<td>Nursing hours worked by LPNs/LVNs by Type of Unit – <strong>Med-Surg Combined</strong> - adult</td>
</tr>
<tr>
<td><strong>NSC-9.2g</strong></td>
<td>Nursing hours worked by LPNs/LVNs by Type of Unit – <strong>Mixed Acuity</strong> - adult</td>
</tr>
<tr>
<td><strong>NSC-9.3b</strong></td>
<td>Nursing hours worked by UAPs by Type of Unit - <strong>Critical Care</strong> - adult</td>
</tr>
<tr>
<td><strong>NSC-9.3c</strong></td>
<td>Nursing hours worked by UAPs by Type of Unit – <strong>Step-down</strong> - adult</td>
</tr>
<tr>
<td><strong>NSC-9.3d</strong></td>
<td>Nursing hours worked by UAPs by Type of Unit – <strong>Medical</strong> - adult</td>
</tr>
<tr>
<td><strong>NSC-9.3e</strong></td>
<td>Nursing hours worked by UAPs by Type of Unit – <strong>Surgical</strong> - adult</td>
</tr>
<tr>
<td><strong>NSC-9.3f</strong></td>
<td>Nursing hours worked by UAPs by Type of Unit – <strong>Med-Surg Combined</strong> - adult</td>
</tr>
<tr>
<td><strong>NSC-9.3g</strong></td>
<td>Nursing hours worked by UAPs by Type of Unit – <strong>Mixed Acuity</strong> - adult</td>
</tr>
<tr>
<td><strong>NSC-9.4b</strong></td>
<td>Nursing hours worked by Contract staff (RN, LPN/LVN, and UAP) by Type of Unit - <strong>Critical Care</strong> - adult</td>
</tr>
<tr>
<td><strong>NSC-9.4c</strong></td>
<td>Nursing hours worked by Contract staff (RN, LPN/LVN, and UAP) by Type of Unit – <strong>Step-down</strong> - adult</td>
</tr>
<tr>
<td><strong>NSC-9.4d</strong></td>
<td>Nursing hours worked by Contract staff (RN, LPN/LVN, and UAP) by Type of Unit – <strong>Medical</strong> - adult</td>
</tr>
<tr>
<td><strong>NSC-9.4e</strong></td>
<td>Nursing hours worked by Contract staff (RN, LPN/LVN, and UAP)</td>
</tr>
</tbody>
</table>
**Performance Measure Name:** Skill Mix

**Description:**
NSC-9.1  Percentage of productive nursing hours worked by RN staff (employee and contract) with direct patient care responsibilities
NSC-9.2  Percentage of productive nursing hours worked by LPN/LVN staff (employee and contract) with direct patient care responsibilities
NSC-9.3  Percentage of productive nursing hours worked by UAP staff (employee and contract) with direct patient care responsibilities
NSC-9.4  Percentage of productive nursing hours worked by contract staff (RN, LPN/LVN, and UAP) with direct patient care responsibilities

**Rationale:** The skill mix of the nursing staff, typically expressed as the proportion of RNs, LPNs/LVNs and UAPs to total nursing hours has been widely studied with respect to its effects on the quality of care. If the percentage of hours supplied by RNs is not adequate, less skilled staff may have to perform tasks for which they are not trained, thus increasing the risk of adverse patient outcomes. Examining the relationship between skill mix and processes and outcomes of care within health care organizations may identify opportunities to improve care delivery, patient outcomes, and provide an evidence base for determining the most effective mixture of staffing.

**Type of Measure:** Structure

**Improvement Noted as:** Either an increase or a decrease in the rate depending on the context of the measure

**Numerator Statement:** Number of productive hours worked by licensure level and employment status.
<table>
<thead>
<tr>
<th>Included Populations</th>
<th>NSC-9.1</th>
<th>NSC-9.2</th>
<th>NSC-9.3</th>
<th>NSC-9.4</th>
</tr>
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<tbody>
<tr>
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<td><strong>LPN/LVN</strong></td>
<td><strong>Unlicensed assistive personnel (UAP)</strong></td>
<td><strong>Contract</strong></td>
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<td><strong>patient care</strong></td>
<td><strong>staff (RN, LPN/LVN, and UAP)</strong></td>
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<td>• Staff not employed by your facility</td>
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<td><strong>Staff hired on a contractual basis to fill staffing needs for a designated shift or on another short-term basis</strong></td>
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<td>• Who are replaced if they call in sick, <strong>and</strong></td>
<td>• Who are replaced if they call in sick, <strong>and</strong></td>
<td>• Who are replaced if they call in sick, <strong>and</strong></td>
<td>• Registry staff from outside the facility (e.g., not floating staff from within the facility)</td>
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<td>• Work hours are charged to the unit’s cost center</td>
<td>• Work hours are charged to the unit’s cost center</td>
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<td>• Traveling nurse staff contracted to the facility for a designated period of time</td>
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<tr>
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<th>NSC-9.1</th>
<th>NSC-9.2</th>
<th>NSC-9.3</th>
<th>NSC-9.4</th>
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</tbody>
</table>

- Persons whose primary responsibility is administrative in nature
- Specialty teams, patient educators or case managers who are not assigned to a specific unit.
- Persons whose primary responsibility is administrative in nature
- Unit secretary, monitor techs, therapy assistants, student nurses fulfilling education requirements, and sitters not providing typical UAP activities
- Persons whose primary responsibility is administrative in nature
- Specialty teams, patient educators or case managers who are not assigned to a specific unit.
### Data Elements

<table>
<thead>
<tr>
<th>NSC-9.1</th>
<th>NSC-9.2</th>
<th>NSC-9.3</th>
<th>NSC-9.4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data Elements</strong></td>
<td><strong>Data Elements</strong></td>
<td><strong>Data Elements</strong></td>
<td><strong>Data Elements</strong></td>
</tr>
<tr>
<td>Month</td>
<td>LPN/LVN Hours [Contract/Agency]</td>
<td>Month</td>
<td>LPN/LVN Hours [Contract/Agency]</td>
</tr>
<tr>
<td>RN Hours [Contract/Agency]</td>
<td>LPN/LVN Hours [Employee]</td>
<td>UAP Hours [Contract/Agency]</td>
<td>Month</td>
</tr>
<tr>
<td>RN Hours [Employee]</td>
<td>Type of Unit</td>
<td>UAP Hours [Employee]</td>
<td>RN Hours [Contract/Agency]</td>
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<tr>
<td>Year</td>
<td>Month Type of Unit</td>
<td>Type of Unit</td>
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<td></td>
<td>Year</td>
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<td>Year</td>
</tr>
</tbody>
</table>

### Denominator Statement

Denominator Statement: Total number of productive hours worked by nursing staff (RN, LPN/LVN, UAP (employee and contract)] with direct patient care responsibilities during the calendar month.

### Included Populations

Included Populations: Productive hours worked by nursing staff with direct patient care responsibilities on adult critical care, step-down, medical-surgical, and mixed acuity units

### Excluded Populations

Excluded Populations: Other unit types (e.g., pediatric, obstetrical, rehab, etc)

### Data Elements:

- LPN/LVN Hours [Contract/Agency]
- LPN/LVN Hours [Employee]
- Month
- RN Hours [Contract/Agency]
- RN Hours [Employee]
- Type of Unit
- UAP Hours [Contract/Agency]
- UAP Hours [Employee]
- Year

### Risk Adjustment

Risk Adjustment: No

### Data Collection Approach

Data Collection Approach: Retrospective

### Data Accuracy

Data Accuracy:

- Payroll or staffing records should be audited to remove non-direct care hours (education, sick leave, vacation leave etc.)
- An eligible reporting unit will calculate nursing care hours data by calendar month.
- If the hospital does not have monthly staffing records for pay periods that go across two months, the hospital should divide the total hours by 14 to get...
average daily hours, then multiply by the number of days that belong to each month. See Appendix D, Table 5.

- Make sure ineligible staff hours are not included (e.g., unit secretary, monitor techs, therapy assistants, student nurses fulfilling education requirements, and sitters not providing typical UAP activities)
- Unlicensed Assistive Personnel (UAP) are individuals trained to function in an assistive role to nurses in the provision of patient care, as delegated by and under the supervision of the registered nurse. In some states assistive nursing personnel may be licensed. For the purposes of this performance measure set, include these persons in the UAP category for calculation.
- Eligible reporting units for this measure are defined by the allowable values for the data element, Type of Unit.

**Measure Analysis Suggestions:**
Facilities may also choose to collect data on additional unit types such as pediatric, psychiatric or rehabilitation.

**Sampling:** No

**Data Reported as:** Aggregate rate generated from count data as a proportion.

**Selected References:**

**Performance Measure Source / Developer:** American Nurses Association (ANA) – National Database for Nursing Quality Indicators (NDNQI)
**NQF-ENDORSED VOLUNTARY CONSENSUS STANDARDS FOR NURSING-SENSITIVE CARE PERFORMANCE MEASURES**

Measure Information Form

Measure Set: Nursing-Sensitive Care

Performance Measure Identifier: NSC-10

<table>
<thead>
<tr>
<th>Set Measure ID#</th>
<th>Performance Measure Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSC-10.1b</td>
<td>Hours per patient day worked by RNs by Type of Unit – Critical Care - adult</td>
</tr>
<tr>
<td>NSC-10.1c</td>
<td>Hours per patient day worked by RNs by Type of Unit – Step-down - adult</td>
</tr>
<tr>
<td>NSC-10.1d</td>
<td>Hours per patient day worked by RNs by Type of Unit – Medical - adult</td>
</tr>
<tr>
<td>NSC-10.1e</td>
<td>Hours per patient day worked by RNs by Type of Unit – Surgical - adult</td>
</tr>
<tr>
<td>NSC-10.1f</td>
<td>Hours per patient day worked by RNs by Type of Unit – Med-Surg Combined - adult</td>
</tr>
<tr>
<td>NSC-10.1g</td>
<td>Hours per patient day worked by RNs by Type of Unit – Mixed Acuity - adult</td>
</tr>
<tr>
<td>NSC-10.2b</td>
<td>Hours per patient day worked by nursing staff (RN, LPN/LVN, and UAP) by Type of Unit – Critical Care - adult</td>
</tr>
<tr>
<td>NSC-10.2c</td>
<td>Hours per patient day worked by nursing staff (RN, LPN/LVN, and UAP) by Type of Unit – Step-down - adult</td>
</tr>
<tr>
<td>NSC-10.2d</td>
<td>Hours per patient day worked by nursing staff (RN, LPN/LVN, and UAP) by Type of Unit – Medical - adult</td>
</tr>
<tr>
<td>NSC-10.2e</td>
<td>Hours per patient day worked by nursing staff (RN, LPN/LVN, and UAP) by Type of Unit – Surgical - adult</td>
</tr>
<tr>
<td>NSC-10.2f</td>
<td>Hours per patient day worked by nursing staff (RN, LPN/LVN, and UAP) by Type of Unit – Med-Surg Combined - adult</td>
</tr>
<tr>
<td>NSC-10.2g</td>
<td>Hours per patient day worked by nursing staff (RN, LPN/LVN, and UAP) by Type of Unit – Mixed Acuity - adult</td>
</tr>
</tbody>
</table>

Performance Measure Name: Nursing care hours per patient day

Description:
NSC-10.1 The number of productive hours worked by RNs with direct patient care responsibilities per patient day.
NSC-10.2 The number of productive hours worked by nursing staff (RN, LPN/LVN, and UAP) with direct patient care responsibilities per patient day.

Rationale: Nursing care hours per patient day measures the supply of nursing relative to the patient workload. The relationship of nurse staffing to the quality of patient care and patient outcomes has been the subject of multiple research studies in recent years. The total number of nursing care hours per patient day reflects time constraints on
nursing staff that can constrain quality of care, resulting in nurses being stressed, fatigued or distracted, increasing the risk for mistakes or omissions in care. Examining the relationship between nursing care hours, and processes and outcomes of care within health care organizations, may identify opportunities to improve care delivery, patient outcomes, and provide an evidence base for determining the most effective staffing levels.

**Type of Measure:** Structure

**Improvement Noted as:** Either an increase or a decrease in the rate depending on the context of the measure.

**Numerator Statement:** Total number of productive hours worked by nursing staff with direct patient care responsibilities during the calendar month.

<table>
<thead>
<tr>
<th>NSC-10.1</th>
<th>NSC-10.2</th>
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</thead>
<tbody>
<tr>
<td><strong>Included Populations</strong></td>
<td><strong>Included Populations</strong></td>
</tr>
</tbody>
</table>
| Productive hours worked by RN staff with direct patient care responsibilities for greater than 50% of their shift. Include:  
• Staff who are counted in the staffing matrix, and  
• Who are replaced if they call in sick., and  
• Work hours are charged to the unit’s cost center  
• Contract staff | Productive hours worked by nursing staff (RN, LVN/LPN, and UAP) with direct patient care responsibilities for greater than 50% of their shift. Include:  
• Staff who are counted in the staffing matrix, and  
• Who are replaced if they call in sick., and  
• Work hours are charged to the unit’s cost center  
• Contract staff |
| **Excluded Populations** | **Excluded Populations** |
| • Persons whose primary responsibility is administrative in nature  
• Specialty teams, patient educators or case managers who are not assigned to a specific unit. | • RNs whose primary responsibility is administrative in nature  
• Specialty teams, patient educators or case managers who are not assigned to a specific unit.  
• Unit clerks, monitor techs, and others with no direct patient care responsibilities |
| **Data Elements** | **Data Elements** |
| Month  
RN Hours [Contract/Agency]  
RN Hours [Employee]  
Type of Unit  
Year | Month  
LPN/LVN Hours [Contract/Agency]  
LPN/LVN Hours [Employee]  
Month  
RN Hours [Contract/Agency]  
RN Hours [Employee]  
Type of Unit  
UAP Hours [Contract/Agency]  
UAP Hours [Employee] |
### Denominator Statement:
Patient days by *Type of Unit* during the calendar month

<table>
<thead>
<tr>
<th>Included Populations</th>
<th>NSC-10.1</th>
<th>NSC-10.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>All patients – inpatient, short stay patients, observation patients and same day surgery patients - who receive care on an eligible reporting unit for all or part of a day. Adult medical, surgical, medical-surgical combined, critical care, step-down, and mixed acuity units.</td>
<td>NSC-10.1</td>
<td>All patients – inpatient, short stay patients, observation patients and same day surgery patients - who receive care on an eligible reporting unit for all or part of a day. Adult medical, surgical, medical-surgical combined, critical care, step-down, and mixed acuity units.</td>
</tr>
<tr>
<td>Excluded Populations</td>
<td>Other unit types (e.g., pediatric, obstetrical, rehab, etc)</td>
<td>Other unit types (e.g., pediatric, obstetrical, rehab, etc)</td>
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<tr>
<td>Data Elements</td>
<td>Month Patient Days Type of Unit Year</td>
<td>Month Patient Days Type of Unit Year</td>
</tr>
</tbody>
</table>

### Risk Adjustment:
No

### Data Collection Approach:
Retrospective from payroll or staffing records and patient census records

### Data Accuracy:
- Payroll or staffing records should be audited to remove non-direct care hours (education, sick leave, vacation leave etc.) and to ensure that ineligible staff are not included (e.g., unit secretary, monitor techs).
- An eligible reporting unit will calculate nursing care hour’s data by calendar month.
- If the hospital does not have monthly staffing records for pay periods that go across two months, the hospital should divide the total hours by 14 to get average daily hours, then multiply by the number of days that belong to each month. See Appendix D, Table 5.
- Each unit that reports hours data, must also collect patient day data for the same month (as outlined in the data element, *Patient Days* – also see Appendix D: Table Patient Day Reporting Methods) in order to calculate ratio.
- Eligible reporting units for this measure are defined by the allowable values for the data element, *Type of Unit*.

### Measure Analysis Suggestions:
Facilities may also choose to collect data on additional unit types such as pediatric, psychiatric or rehabilitation.
**Sampling:** No

**Data Reported as:** Aggregate rate generated from count data as a ratio.

**Selected References:**

**Performance Measure Source / Developer:**
American Nurses Association (ANA) – National Database for Nursing Quality Indicators (NDNQI)
NsF-EnDorsed Voluntary CoNsensus Standards for Nursing-
SensiTe Care peRformance MeAurEs

Measure Information Form

Measure Set: Nursing-Sensitive Care

Performance Measure Identifier: NSC-11

<table>
<thead>
<tr>
<th>Set Measure ID#</th>
<th>Performance Measure Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSC-11.1</td>
<td>Voluntary turnover for Registered Nurse (RN) and Advanced Practice Nurse (APN)</td>
</tr>
<tr>
<td>NSC-11.2</td>
<td>Voluntary turnover for Licensed Practical Nurse (LPN)/Licensed Vocational Nurse (LVN)</td>
</tr>
<tr>
<td>NSC-11.3</td>
<td>Voluntary turnover for Unlicensed Assistive Personnel (UAP)</td>
</tr>
</tbody>
</table>

Performance Measure Name: Voluntary Turnover

Description:
NSC-11.1 Total number of full-time and part-time RN and APN voluntary uncontrolled separations occurring during the calendar month
NSC-11.2 Total number of full-time and part-time LPN, LVN voluntary uncontrolled separations occurring during the calendar month
NSC-11.3 Total number of full-time and part-time UAP voluntary uncontrolled separations occurring during the calendar month

Rationale: Voluntary turnover within an organization that is due primarily to employee dissatisfaction with their job (including aspects such as compensation, work environment, team members, or management) and excluding other recognized causes of separation such as relocation, retirement or termination is a widely recognized and highly specific, and more accurate measure for assessing employee separations than total turnover rate. It is correlated with levels of employee satisfaction and impacts the stability of staffing resources. Furthermore, with high patient to nurse ratios, nurses are more likely to experience increased emotional exhaustion (Aiken, et al.). Shortages of available hospital nurses make staff satisfaction and retention an even more critical issue for hospitals. Collection of voluntary turnover information allows healthcare organizations to focus on separations that are likely related to dissatisfaction. By assessing this important workforce issue, an organization may identify opportunities to improve job satisfaction, increase staff retention and maximize nursing resources.

Type of Measure: Structure

Improvement Noted as: A decrease in rate

Numerator Statement: The total number of voluntary uncontrolled separations during the calendar month.
### Included Populations
- RN and APN separations
- LPN/LVN separations
- UAP separations

### Excluded Populations
- Transfers within the organization.
- Separations due to death, disability, illness, relocation, military service, education, retirement, promotions, performance or discipline.
- Cutbacks due to mergers, cyclical layoffs, or other permanent reduction in force.

### Data Elements
<table>
<thead>
<tr>
<th>NSC-11.1</th>
<th>NSC-11.2</th>
<th>NSC-11.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month</td>
<td>Reason for Separation</td>
<td>Separations APN</td>
</tr>
<tr>
<td>Year</td>
<td>Separations RN</td>
<td>Type of Unit</td>
</tr>
<tr>
<td></td>
<td>Separations LPN/LVN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type of Unit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Year</td>
<td></td>
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</table>

**Denominator Statement:** Total number of full time and part time employees on the last day of the month.
<table>
<thead>
<tr>
<th>Included Populations</th>
<th>NSC-11.1</th>
<th>NSC-11.2</th>
<th>NSC-11.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNs and APNs engaged in direct patient care positions or related nursing supervisory positions and positions for which an RN degree is a specific condition of hire, employed on the last day of the month.</td>
<td>• RNs and APNs engaged in direct patient care positions or related nursing supervisory positions and positions for which an RN degree is a specific condition of hire, employed on the last day of the month.</td>
<td>• LPNs/LVN/LPs engaged in direct patient care positions, employed on the last day of the month.</td>
<td>• UAP engaged in direct patient care positions, employed on the last day of the month.</td>
</tr>
<tr>
<td>Full-time and part-time staff employed by the hospital but who have no regular schedule or unit (e.g., float pool).</td>
<td>• Full-time and part-time staff employed by the hospital but who have no regular schedule or unit (e.g., float pool).</td>
<td>• Full-time and part-time staff employed by the hospital but who have no regular schedule or unit (e.g., float pool).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
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<th>NSC-11.2</th>
<th>NSC-11.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRN/Per diems, contractors, consultants, temporary agency, travelers, students, or other non-permanent employees.</td>
<td>• PRN/Per diems, contractors, consultants, temporary agency, travelers, students, or other non-permanent employees.</td>
<td>• PRN/Per diems, contractors, consultants, temporary agency, travelers, students, or other non-permanent employees.</td>
<td>PRN/Per diems, contractors, consultants, temporary agency, travelers, students, or other non-permanent employees.</td>
</tr>
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</table>

<table>
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<th>Data Elements</th>
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<th>NSC-11.2</th>
<th>NSC-11.3</th>
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</thead>
<tbody>
<tr>
<td>Employed APNs</td>
<td>Employed APNs</td>
<td>Employed APNs</td>
<td>Employed APNs</td>
</tr>
<tr>
<td>Employed RNs</td>
<td>Employed RNs</td>
<td>Employed RNs</td>
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<td>Month</td>
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<tr>
<td>Type of Unit</td>
<td>Type of Unit</td>
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<td>Type of Unit</td>
</tr>
<tr>
<td>Year</td>
<td>Year</td>
<td>Year</td>
<td>Year</td>
</tr>
<tr>
<td>Employed LPNs/LVN/LPs</td>
<td>Employed LPNs/LVN/LPs</td>
<td>Employed LPNs/LVN/LPs</td>
<td>Employed LPNs/LVN/LPs</td>
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<tr>
<td>Month</td>
<td>Month</td>
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<td>Type of Unit</td>
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</tr>
<tr>
<td>Year</td>
<td>Year</td>
<td>Year</td>
<td>Year</td>
</tr>
<tr>
<td>Employed UAP</td>
<td>Employed UAP</td>
<td>Employed UAP</td>
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<td>Month</td>
<td>Month</td>
<td>Month</td>
<td>Month</td>
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<tr>
<td>Type of Unit</td>
<td>Type of Unit</td>
<td>Type of Unit</td>
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</tr>
<tr>
<td>Year</td>
<td>Year</td>
<td>Year</td>
<td>Year</td>
</tr>
</tbody>
</table>

**Risk Adjustment:** No

**Data Collection Approach:** Retrospective

**Data Accuracy:**

1) RNs refers to nursing positions that require an RN or higher nursing degree for hire; generally these are direct patient care positions or related nursing supervisory positions; therefore a Director of Finance position that happens to be filled by an individual with an RN degree would not be included in this calculation unless the RN degree was a specific condition of hire.

2) Make sure all non-permanent employees, e.g. contractors, consultants, temporary agency or travelers are excluded from the denominator and numerator.
3) Make sure all applicable voluntary uncontrolled exclusions have been applied in the numerator.
4) Promotions are excluded from the numerator.
5) Make sure only applicable groups are included (i.e., RN/APN)
6) Separation is based on last day worked. For example if an eligible employee gave notice on March 25 but the last day worked was April 15 – the separation would be credited to the month of April and the second quarter of the year.

Measure Analysis Suggestions:
Measure data on separations and employee numbers are collected by Type of Unit to allow for internal hospital analysis and quality improvement initiatives. Although collected at the unit level the measures rates are publicly reported at the hospital level.

Facilities may also choose to collect data on additional unit types such as pediatric, psychiatric or rehabilitation.

Sampling: No

Data Reported as: Aggregate rate generated from count data reported as a ratio

Selected References:

- Buerhaus PI. Shortages of hospital registered nurses: causes and perspectives on public and private sector actions. Nurs Outlook. 2002; 50:4-6

**Performance Measure Source / Developer:**
VHA Inc.
## Measure Information Form

**Measure Set:** Nursing-Sensitive Care (NSC)

**Performance Measure ID:** NSC-12

<table>
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<th>Performance Measure Name</th>
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<tr>
<td>NSC-12a</td>
<td>Mean score on a composite of all subscale scores</td>
</tr>
<tr>
<td>NSC-12b</td>
<td>Mean score on Nurse Participation in Hospital Affairs</td>
</tr>
<tr>
<td>NSC-12c</td>
<td>Mean score on Nursing Foundations for Quality of Care</td>
</tr>
<tr>
<td>NSC-12d</td>
<td>Mean score on Nurse Manager Ability, Leadership, and Support of Nurses</td>
</tr>
<tr>
<td>NSC-12e</td>
<td>Mean score on Staffing and Resource Adequacy</td>
</tr>
<tr>
<td>NSC-12f</td>
<td>Mean score on Collegial Nurse-Physician Relations</td>
</tr>
<tr>
<td>NSC-12g</td>
<td>Three category variable indicating favorable, mixed, or unfavorable practice environments</td>
</tr>
</tbody>
</table>

**Performance Measure Name:** Practice Environment Scale-Nursing Work Index (PES-NWI)

**Description:** The mean scores on index subscales and a composite mean of all subscale scores based on surveys completed by Registered Nurses (RNs).

**Rationale:** Nurses provide the majority of primary patient care in the hospital setting. Research has increasingly demonstrated the positive impact of nursing on the quality of patient care processes and outcomes. The practice environment has been shown to influence successful recruitment and retention of nurses. By measuring the practice environment, health care organizations may identify opportunities to facilitate professional nursing practice, and enhance the quality of patient care processes and outcomes.

40 publications in peer-reviewed U.S. and international journals document the ongoing psychometric rigor of the PES-NWI, its link to patient and nurse outcomes, and its dissemination worldwide to measure and improve nurse’s practice environments. Twenty-nine studies have been conducted to evaluate the association of the practice environment, as measured by the PES-NWI, with patient and nurse outcomes, quality of care, or for other descriptive purposes.

Several studies have shown that patients in hospitals with better care environments as measured by the PES-NWI patients had significantly lower risks of death and failure to rescue (Aiken, Clarke, Sloane, Lake, & Cheney, 2008; Friese, Lake, Aiken, Silber, & Sochalski, 2008). Aiken et al. used 1999 data from 10,184 nurses and 232,342 general surgical patients in 168 Pennsylvania hospitals and found that the likelihood of patients dying within 30 days of admission was 14% lower in hospitals with better care environments than in hospitals with poor care environments. Friese et al. studied
surgical oncology patients and found that patients in hospitals with unfavorable practice environments had 37% greater odds of dying within 30 days and 48% higher odds of failure to rescue than patients in hospitals with favorable practice environments. Gardner, Thomas-Hawkins, Fogg & Latham (2007) found that kidney dialysis facilities with more favorable PES-NWI ratings had lower rates of patient hospitalizations.

Researchers focus on patient satisfaction as a key outcome of nursing care. Kutney-Lee et al. (in press) studied 430 hospitals in four states and found that hospitals with better nurse practice environments had higher patient satisfaction scores, as measured with 2006-2007 Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey Medicare data.

Many studies provide evidence that differences in practice environments as measured by the PES-NWI are associated with differences in nurse burnout, satisfaction, intent to leave, turnover, needlestick injuries, empowerment, and work-related disability (Bruyneel, et al., in press; Clarke, Sloane, & Aiken, 2002; Friese, 2005; Gunnarsdóttir, et al., in press; Kanai-Pak, et al., 2007; Laschinger, Almost, & Tuer-Hodes, 2003; Laschinger, et al., 2001; Leiter & Laschinger, 2006; Manojlovich, 2005; Manojlovich & Laschinger, 2007; O'Brien-Pallas, et al., 2004; Shamian, Kerr, Laschinger, & Thomson, 2002; Thomas-Hawkins, Denno, Currier, & Wick, 2003; Vahey, et al., 2004; Wade, et al., 2008). These studies include data sets spanning the period 1999 to 2008 and comprising large samples of nurses and hospitals in the U.S., Canada, Iceland, and Japan.

The PES-NWI has been used extensively (39 publications) in a brief period to evaluate its instrument performance in a variety of locations internationally and to test the links between nurses’ environments and nurse and patient outcomes. The evidence from the literature supports the psychometric rigor of the instrument and suggests that nurses’ practice environments are part of a causal chain linking nursing care to nurse and patient outcomes. The evidence linking practice environments to nurse outcomes is sizable, comprising 15 studies. The evidence on patient outcomes is small but growing: of eight studies that linked PES-NWI ratings to patient outcomes, six of the eight were published since 2007. Six of the eight patient outcomes studies identified statistically significant findings, one had significant bivariate but not multivariate associations, and the eighth had nonsignificant findings associated with the practice environment in a sample of 25 intensive care units. A third type of outcome that has been studied is nurse-rated quality of care and adverse event frequency. Eight of these ten studies identified statistically significant associations between practice environment ratings and nurse-assessed quality of care or adverse events; two did not.

Source: Eileen Lake

**Type of Measure:** Structure

**Improvement Noted as:** An increase in the mean score

**Continuous Variable Statement:** For surveys completed by Registered Nurses (RN).

See Appendix G:

12a) Mean score on a composite of all subscale scores
12b) Mean score on Nurse Participation in Hospital Affairs (survey item numbers 5, 6, 11, 15, 17, 21, 23, 27, 28)
12c) Mean score on Nursing Foundations for Quality of Care (survey item numbers 4, 14, 18, 19, 22, 25, 26, 29, 30, 31)
12d) Mean score on Nurse Manager Ability, Leadership, and Support of Nurses (survey item numbers 3, 7, 10, 13, 20)
12e) Mean score on Staffing and Resource Adequacy (survey item numbers 1, 8, 9, 12)
12f) Mean score on Collegial Nurse-Physician Relations (survey item numbers 2, 16, 24)
12g) Three category variable indicating favorable, mixed, or unfavorable practice environments: favorable = four or more subscale means exceed 2.5; mixed = two or three subscale means exceed 2.5; unfavorable = zero or one subscales exceed 2.5.

Included Populations:
- Registered Nurses with direct patient care responsibilities for 50% or greater of their job
- Full time, part time, and PRN or per diem RN’s employed by the hospital
- Eligible nurses from all hospital units

Excluded Populations
- New hires of less than 3 months
- Agency, traveler or contract nurses
- Nurses in management, supervisory, or educator roles with direct patient care responsibilities less than 50% of their job, whose primary responsibility is administrative in nature

Subscales Required Data Elements:

**Nurse Participation in Hospital Affairs**
- PES-NWI Career Development
- PES-NWI Participation in Policy Decisions
- PES-NWI Chief Nursing Officer Visibility
- PES-NWI Chief Nursing Officer Authority
- PES-NWI Advancement Opportunities
- PES-NWI Administration Listens and Responds
- PES-NWI Staff Nurses Hospital Governance
- PES-NWI Nursing Committees
- PES-NWI Nursing Administrators Consult

**Nursing Foundations for Quality of Care**
- PES-NWI Continuing Education
- PES-NWI High Nursing Care Standards
- PES-NWI Philosophy of Nursing
- PES-NWI Nurses Are Competent
- PES-NWI Quality Assurance Program
- PES-NWI Preceptor Program
- PES-NWI Nursing Care Model
- PES-NWI Patient Care Plans
- PES-NWI Continuity of Patient Assignments
- PES-NWI Nursing Diagnosis

Nurse Manager Ability, Leadership, and Support of Nurses
- PES-NWI Supportive Supervisory Staff
- PES-NWI Supervisors Learning Experiences
- PES-NWI Nurse Manager and Leader
- PES-NWI Recognition
- PES-NWI Nurse Manager Backs up Staff

Staffing and Resource Adequacy
- PES-NWI Adequate Support Services
- PES-NWI Time to Discuss Patient Problems
- PES-NWI Enough Nurses for Quality Care
- PES-NWI Enough Staffing

Collegial Nurse-Physician Relations
- PES-NWI Nurse and Physician Relationships
- PES-NWI Nurse and Physician Teamwork
- PES-NWI Collaboration

Composite Score
- Mean of subscale scores

Three Category Variable
- Favorable = four or more subscale means exceed 2.5
- Mixed = two or three subscale means exceed 2.5
- Unfavorable = zero or one subscales exceed 2.5

Data Elements Crosswalk with Survey Questions/Items:

<table>
<thead>
<tr>
<th>PES-NWI Adequate Support Service</th>
<th>Adequate support services allow me to spend time with my patients (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PES-NWI Administration Listens and Responds</td>
<td>Administration that listens and responds to employee concerns (21)</td>
</tr>
<tr>
<td>PES-NWI Advancement Opportunities</td>
<td>Opportunities for advancement (17)</td>
</tr>
<tr>
<td>PES-NWI Career Development</td>
<td>Career development/clinical ladder opportunity (5)</td>
</tr>
<tr>
<td>PES-NWI Chief Nursing Officer Authority</td>
<td>A chief nurse officer equal in power and authority to other top-level hospital executives (15)</td>
</tr>
<tr>
<td>PES-NWI Chief Nursing Officer Visibility</td>
<td>A chief nursing officer who is highly visible and accessible to staff (11)</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>PES-NWI Collaboration</td>
<td>Collaboration (joint practice) between nurses and physicians (24)</td>
</tr>
<tr>
<td>PES-NWI Continuing Education</td>
<td>Active staff development or continuing education programs for nurses (4)</td>
</tr>
<tr>
<td>PES-NWI Continuity of Patient Assignments</td>
<td>Patient care assignments that foster continuity of care, i.e., the same nurse cares for the patient from one day to the next (30)</td>
</tr>
<tr>
<td>PES-NWI Enough Nurses for Quality Care</td>
<td>Enough registered nurses to provide quality patient care (9)</td>
</tr>
<tr>
<td>PES-NWI Enough Staffing</td>
<td>Enough staff to get the work done (12)</td>
</tr>
<tr>
<td>PES-NWI High Nursing Care Standards</td>
<td>High standards of nursing care are expected by the administration (14)</td>
</tr>
<tr>
<td>PES-NWI Nurse and Physician Relationships</td>
<td>Physicians and nurses have good working relationships (2)</td>
</tr>
<tr>
<td>PES-NWI Nurse and Physician Teamwork</td>
<td>A lot of team work between nurses and physicians (16)</td>
</tr>
<tr>
<td>PES-NWI Nurse Manager and Leader</td>
<td>A nurse manager who is a good manager and leader (10)</td>
</tr>
<tr>
<td>PES-NWI Nurse Manager Backs up Staff</td>
<td>A nurse manager who backs up the nursing staff in decision making even if the conflict is with a physician (20)</td>
</tr>
<tr>
<td>PES-NWI Nurses Are Competent</td>
<td>Working with nurses who are clinically competent (19)</td>
</tr>
<tr>
<td>PES-NWI Nursing Administrators Consult</td>
<td>Nursing administrators consult with staff on daily problems and procedures (28)</td>
</tr>
<tr>
<td>PES-NWI Nursing Care Model</td>
<td>Nursing care is based on a nursing, rather than a medical, model (26)</td>
</tr>
<tr>
<td>PES-NWI Nursing Committees</td>
<td>Staff nurses have the opportunity to serve on hospital and nursing committees (27)</td>
</tr>
<tr>
<td>PES-NWI Nursing Diagnosis</td>
<td>Use of nursing diagnosis (31)</td>
</tr>
<tr>
<td>PES-NWI Participation in Policy Decisions</td>
<td>Opportunity for staff nurses to participate in policy decisions (6)</td>
</tr>
<tr>
<td>PES-NWI Patient Care Plans</td>
<td>Written, up-to-date care plans for all patients (29)</td>
</tr>
<tr>
<td>PES-NWI Philosophy of Nursing</td>
<td>A clear philosophy of nursing that pervades the patient care environment (18)</td>
</tr>
<tr>
<td>PES-NWI Preceptor Program</td>
<td>A preceptor program for newly hired RNs (25)</td>
</tr>
<tr>
<td>PES-NWI Quality Assurance Program</td>
<td>An active quality assurance program (22)</td>
</tr>
<tr>
<td>PES-NWI Recognition</td>
<td>Praise and recognition for a job well done (13)</td>
</tr>
<tr>
<td>PES-NWI Staff Nurses Hospital Governance</td>
<td>Staff nurses are involved in the internal governance of the hospital (e.g. practice and policy committees) (23)</td>
</tr>
<tr>
<td>PES-NWI Supervisors Learning</td>
<td>Supervisors use mistakes as learning</td>
</tr>
</tbody>
</table>
Experiences

<table>
<thead>
<tr>
<th>Experience</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PES-NWI Supportive Supervisory Staff</td>
<td>A supervisory staff that is supportive of the nurses (3)</td>
</tr>
<tr>
<td>PES-NWI Time to Discuss Patient Problems</td>
<td>Enough time and opportunity to discuss patient care problems with other nurses (8)</td>
</tr>
</tbody>
</table>

Data Elements:

- Number of Responses
- Survey Date
- Survey Distribution Date
- Total Number of Surveys Distributed
- Total Number of Surveys Returned
- Type of Unit

Risk Adjustment: Not Applicable

Data Collection Approach: Concurrent, retrospective

Data Accuracy: None

Measure Analysis Suggestions:
Measure data can be analyzed by Type of Unit to allow for internal hospital analysis and quality improvement initiatives. The unit size (number of eligible RNs), number of responses and the issue of anonymity may be considerations in unit-level analysis. To protect anonymity, unit-level findings should only be reported for units with 5 or more respondents. Data elements needed for unit-level analysis include respondent’s Unit of Employment, Number of Surveys Distributed per unit and Number of Surveys Returned per unit. Additional data elements needed for unit-type analysis include a comprehensive list of unit types covering the area of employment of all eligible RNs. The measure is publicly reported at the hospital level.

Hospitals are encouraged to calculate the response rate when conducting analysis of this measure. The response rate is the proportion of eligible nurses who respond to the survey. Hospitals may also wish to examine the number of responses for each question against the total number of submitted surveys. Unit response rates of >50% are generally considered adequate to support validity of unit-level data.

Sampling: Yes
According to Lake and Friese (2006) the minimum number of completed surveys per hospital for satisfactory estimates is 15, therefore considering a typical response rate of 60%, a random sample of at least 25 nurses needs to be surveyed annually. For purposes of public reporting the measure a minimum of 30 completed surveys is desired, therefore hospitals who choose to sample should sample a minimum of 50 nurses annually. While a random sample may be used at the hospital-level, it is recommended that hospitals survey all eligible nurses to allow all nurses the opportunity to complete the practice environment survey instrument.
Data Reported as: Aggregate measure of central tendency

Selected References:
- 0&_userid=489256&md5=defa6983b310bb713bb8b148b835deae


• Manojlovich, M., & DeCicco, B. (2007). Healthy work environments, nurse-physician communication, and patients' outcomes. American Journal of Critical Care, 16(6), 536 - 543.

Performance Measure Source / Developer:
Lake, Eileen, et al.
Appendix A
Glossary of Terms

Accuracy (of data) The extent to which data are free of identifiable errors.

Administrative/Billing Data (data source) Administrative data are patient-identifiable data used for administrative, regulatory, and payment (financial) purposes. Administrative data generally reflects the content of discharge abstracts (for example, demographic information on patients such as age, sex, zip code; information about the episode of care such as Point of Origin for Admission or Visit, length of stay, discharge status; and ICD-9-CM diagnosis and procedure codes). Namely, the Uniform Bill of the Health Care Financing Administration (UB-04) provides specifications for the abstraction of administrative/billing data.

Advanced Practice (registered) Nurse (APN/APRN) The role of advanced practice nurses is determined by state-level boards of nursing through nursing practice acts; the National Council of State Boards of Nursing (NCSBN) has developed model nursing practice act language at www.ncsbn.org/public/regulation/nursing_practice_model_practice_act.htm. Advanced Practice Nurse (APN, APRN) titles may vary between state and clinical specialities. Some common titles that represent the advanced practice nurse role are:

- Nurse Practitioner (NP)
- Certified Registered Nurse Anesthetist (CRNA)
- Clinical Nurse Specialist (CNS)
- Certified Nurse Midwife (CNM)

Aggregate (hospital data) Aggregate data elements derived for a specific hospital from the results of each measures algorithm over a given time period (e.g., monthly, quarterly). These data are transmitted to The Joint Commission by ORYX® Vendors.

Aggregate (measurement data) Measurement data collected and reported by organizations as a sum or total over a given period (e.g., monthly, quarterly), or for certain groupings (e.g., health care organization level)

Aggregate Risk-Adjusted Data Elements Aggregate data elements derived from episode of care (EOC) records that result from the application of risk adjustment models by ORYX Vendors for transmission to The Joint Commission.

Algorithm An ordered sequence of data element retrieval and aggregation through which numerator and denominator events or continuous variable values are identified by a measure. The algorithms are depicted using flowcharting symbols.

Allowable Value A list of acceptable responses for a data element.

ANSI X12 The American National Standards Institute’s standard for transmitting data electronically, or electronic data interchange (EDI).
**Assisted Fall**  A fall in which any staff member (whether nursing service employee or not) was with the patient and attempted to minimize the impact of the fall by easing the patient’s descent to the floor or in some manner attempting to break the patient’s fall. “Assisting” the patient back into bed or chair after a fall is not an assisted fall. A fall that is reported to have been assisted by a family member or visitor also does not count as an assisted fall.

**Binary Outcome**  Events or conditions that occur in one or two possible states often labeled 0 or 1. Such data are frequently encountered in medical research. Common examples include dead or alive, and improved or not improved.

**Caregiver**  The patient’s family or any other person who will be responsible for care of the patient after discharge.

**Central Line**  An intravascular catheter that terminates at or close to the heart or in one of the great vessels which is used for infusion, withdrawal of blood, or hemodynamic monitoring. The following are considered great vessels for the purposes of reporting central-line infections and counting central-line days for the CLABSI measure: Aorta, pulmonary artery, superior vena cava, inferior vena cava, brachiocephalic veins, internal jugular veins, and subclavian veins, external iliac veins and common femoral veins.

- **NOTE:** An introducer is considered an intravascular catheter
- **NOTE:** In neonates, the umbilical artery/vein is considered a great vessel
- **NOTE:** Neither [the location of] the insertion site nor the type of device may be used to determine if a line qualifies as a central line. The device must terminate in one of these vessels or in or near the heart to qualify as a central line.
- Pacemaker wires and other non-infusion devices inserted into central blood vessels or the heart are not considered central lines because fluids are not infused, pushed, nor withdrawn through such devices.
  - **Umbilical Catheter:** A central vascular device inserted through the umbilical artery or vein in a neonate
  - **Temporary Central Line:** Non-tunneled catheter
  - **Permanent Central Line:** Includes
    - Tunneled catheters, including certain dialysis catheters
    - Implanted catheters (including ports)

**Central Line-associated Bloodstream Infection (CLABSI)**  A CLABSI is a primary bloodstream infection (BSI) in a patient that had a central line within the 48-hour period before the development of the BSI. If the BSI develops within 48-hours of discharge from a location, it is associated with the discharging location.

**NOTE:** There is no minimum period of time that the central line must be in place in order for the BSI to be considered central line-associated.

**Central Tendency**  A property of the distribution of a variable, usually measured by statistics such as the mean, median, and mode.
Clinical Measures  Measures designed to evaluate the processes or outcomes of care associated with the delivery of clinical services; allow for intra- and interorganizational comparisons to be used to continuously improve patient health outcomes; may focus on the appropriateness of clinical decision making and implementation of these decisions; must be condition specific, procedure specific, or address important functions of patient care (e.g., medication use, infection control, patient assessment, etc).

Clinical Survey (data sources)  Survey data obtained from clinicians who provide care.

Community Acquired Pressure Ulcer  Any pressure ulcer discovered/docunented at the time of hospitalization. An ulcer observed within the first 24 hours from the time of inpatient admission should be considered community acquired for this measure set.

Comparison Group  The group of health care organizations to which an individual health care organization is compared. (ORYX Vendors transmit aggregated comparison group data for non-core measures. The Joint Commission will aggregate health care organization-level data to create the comparison group for each core measure.)

Confounding Factors  Intervening variables that distort the true relationship between/among the variables of interest. They are related to the outcome of interest, but extraneous to the study question and are non-randomly distributed among the groups being compared. They can hide a true correlation or give the appearance of a correlation when none actually exists.

Continuous Variable  An aggregate data measure in which the value of each measurement can fall anywhere along a continuous scale (e.g., the time [in minutes] from emergency department arrival to administration of thrombolytic).

Continuous Variable Data Elements  Those data elements required to construct the measure as stated in the section labeled “Continuous Variable Statement.”

Contract/Agency Staff  Temporary nursing staff that are not employee by your facility but are:
- Hired on a contractual basis to fill staffing needs for a designated shift or another short-term basis
- Registry staff from outside the facility (e.g., not floating staff from within the facility)
- Traveling nurse staff contracted to the facility for a designated period of time

Critical Access Hospital (CAH)  Is a rural public, non-profit or for-profit hospital; a hospital that was closed within the previous ten years; or is a rural health clinic that was downsized from a hospital that is located in a state that has established a state plan with CMS for the Medicare Rural Hospital Flexibility Program. A CAH makes available 24-hour emergency care services 7 days per week and are, by definition, located more than a 35 mile drive from any other hospital or CAH (in mountainous terrain or in areas
with only secondary roads available, the mileage criterion is 15 miles); or is certified by the state in the state plan as being a **necessary provider** of health care services to residents in the area. They provide no more than 15 beds for acute (hospital-level) inpatient care and provide an annual average length of stay of 96 hours per patient for acute care patients. An exception to the 15-bed requirement is made for swing-bed facilities, which are allowed to have up to 25 inpatient beds that can be used interchangeably for acute or SNF-level care, provided that not more than 15 beds are used at any one time for acute care. Hospitals certified by the Secretary of the Department of Health and Human Services (DHHS) as critical access hospitals are eligible for cost-based reimbursement from Medicare if they meet a specific set of federal Conditions of Participation (CoPs).

**Data Collection**  The act or process of capturing raw or primary data from a single or number of sources. Also called “data gathering.”

**Data Collection Effort**  The availability and accessibility of the required data elements, the relative effort required, and associated cost of abstracting or collecting the data.

**Data Element**  A discrete piece of data, such as patient birthdate or principal diagnosis. See also denominator data elements, numerator data elements, and continuous variable data elements.

**Data Entry**  The process by which data are transcribed or transferred into an electronic format.

**Data Quality**  The accuracy and completeness of measure data on performance in the context of the analytic purposes for which they will be used.

**Data Sources**  The primary source document(s) used for data collection (for example, billing or administrative data, encounter form, enrollment forms, medical record).

**Data Transmission**  The process by which data are electronically sent from one organization to another. For example, a hospital sending patient-level data to its selected ORYX Vendor, and the vendor sending measure-level data to The Joint Commission or patient-level data to the QIO Clinical Warehouse.

**Denominator**  The lower part of a fraction used to calculate a rate, proportion, or ratio. Also the population for a rate-based measure.

**Denominator Data Elements**  Those data elements required to construct the denominator.

**Denominator Statement**  A statement that depicts the population evaluated by the performance measure (e.g., “AMI patients with a history of smoking cigarettes anytime during the year prior to hospital arrival”).
Discrete Variable  See rate-based measure.

Direct Patient Care Responsibilities  Patient centered nursing activities by unit-based staff in the presence of the patient and activities that occur away from the patient that are patient related:
- Medication administration
- Nursing treatment
- Nursing rounds
- Admission, transfer, discharge activities
- Patient teaching
- Patient communication
- Coordination of patient care
- Documentation time
- Treatment planning

Electronic Data Interchange (EDI)  An instance of data being sent electronically between parties, normally according to predefined industry standards.

Empiric Antibiotic Therapy  Antibiotic treatment based on the clinician’s judgment and the patient's signs and symptoms and offered before a diagnosis has been confirmed.

Employee  Persons who are employed directly by the facility and are on the payroll for the purpose of providing nursing care. This would include a hospital's own internal “registry” staff.

Employment Status  Nursing staff may be either employees or contracted (agency) staff. Nursing care hours (NCH) includes hours worked by both employees and contract staff.

Episode of Care (EOC)  A patient or case-level record submitted to the database.

Excluded Populations  Detailed information describing the populations that should not be included in the indicator. For example, specific age groups, ICD-9-CM procedure or diagnostic codes, or certain time periods could be excluded from the general population drawn upon by the indicator.

Extranet  A private network using the Internet protocol to securely share business information or operations with vendors, customers, and/or other businesses. “The Joint Commission Connect” is the name given to the Joint Commission’s extranet site.

Fall  An unplanned descent to the floor (or extension of the floor, e.g., trash can or other equipment) with or without injury to the patient.

Format  Specifies the character length of a specific data element; the type of information the data element contains: numeric, decimal number, date, time, or alphanumeric; and the frequency with which the data element occurs.
General Data Elements  Data elements that must be collected by hospitals for each patient record. These data are patient demographic data, hospital identifiers, and patient identifiers.

Healthcare-Associated Infection (HAI)  A localized or systemic condition resulting from an adverse reaction to the presence of an infectious agent(s) or its toxin(s). There must be no evidence that the infection was present or incubating at the time of admission to the acute care setting.

Health Care Organization (HCO)  The business entity which is participating in an ORYX Vendor (e.g., health care organization level data describes information about the business entity).

Health Care Organization (HCO) Level Data  Aggregation of patient level data to summarize the performance of an individual hospital on a performance measure. This data is transmitted to The Joint Commission by the hospital’s ORYX Vendor.

Hospital  According to the American Hospital Association, hospitals are licensed institutions with at least six beds whose primary function is to provide diagnostic and therapeutic patient services for medical conditions by an organized physician staff, and have continuous nursing services under the supervision of registered nurses.

Hospital Acquired (Nosocomial) Pneumonia  Pneumonia contracted while in the hospital. Also referred to as nosocomial pneumonia.

Hospital Acquired Pressure Ulcer (Nosocomial)  An ulcer observed after the first 24 hours from the time of inpatient admission AND for which there is no documentation in the record indicating the date of first discovery; should be considered as hospital-acquired.

Hospitalist  A physician whose main practice provides care for hospitalized patients.

ICD-9-CM Codes  A two-part classification system in current use for coding patient medical information used in abstracting systems and for classifying patients into diagnosis-related groups (DRGs). The first part is a comprehensive list of diseases with corresponding codes compatible with the World Health Organization’s list of disease codes. The second part contains procedure codes independent of the disease codes.

Incidence Measure  A measure of frequency or change of status over time.

Included Population  Detailed information describing the population(s) or event(s) that the indicator intends to measure.
Indwelling Urinary Catheter  A drainage tube that is inserted into the urinary bladder through the urethra, is left in place, and is connected to a closed collection system; also called a Foley catheter. Does not include straight in-and-out catheters.

Infection Module  A set of evidence-based process measures designed to prevent postoperative infection in the surgical patient.

Infusion  The introduction of a solution through a blood vessel via a catheter lumen. This may include continuous infusions such as nutritional fluids or medications, or it may include intermittent infusions as flushes or IV antimicrobial administration, or blood, in the case of transfusion or hemodialysis.

- **Umbilical Catheter:** A central vascular device inserted through the umbilical artery or vein in a neonate.
- **Temporary Central Line:** Non-tunneled catheter
- **Permanent Central Line:** Includes
  - Tunneled catheters, including certain dialysis catheters
  - Implanted catheters (including ports)

Initial Patient Populations  Detailed information describing the population(s) that the indicator intends to measure. Details could include such information as specific age groups, diagnoses, ICD-9-CM diagnostic and procedure codes, CPT codes, revenue codes, enrollment periods, insurance and health plan groups, etc.

Inpatient Mortality  Any patient death occurring while admitted as an in-patient in the hospital.

Intensive Care Unit (ICU)  A nursing care area that provides intensive observation, diagnosis, and therapeutic procedures for adults and/or children who are critically ill. An ICU excludes nursing areas that provide step-down, intermediate care or telemetry only. Specialty care areas are also excluded. The type of ICU is determined by the kind of patients cared for in that unit. That is, if 80% of patients are of a certain type (e.g., patients with trauma), than that ICU is designated as that type of unit (in this case, trauma). When a unit houses roughly equal populations of medical and surgical patients, it is called a medical/surgical unit.

Invalid Data  Values for data elements that are required for calculating and/or risk adjusting a core measure that fall outside of the acceptable range of values defined for that data element. Refer to the Missing and Invalid Data section for further information.

“The Joint Commission Connect”  The name given to the Joint Commission’s extranet site, a secured online connection to The Joint Commission.

Mean  A measure of central tendency for a continuous variable measure. The mean is the sum of the values divided by the number of observations.
Measure Information Form  Tool to provide specific clinical and technical information on a measure. The information contained includes: performance measure name, description, rationale, numerator/denominator/continuous variable statements, included populations, excluded populations, data elements, risk adjustment, sampling, data accuracy, and selected references.

Measure of Performance  See performance measure.

Measure-Specific Data Elements  Data elements used by one specific measure or several measures in one specific measure set, such as the heart failure measures.

Median  The value in a group of ranked observations that divides the data into two equal parts.

Medical Record (Data Source)  Data obtained from the records or documentation maintained on a patient in any health care setting (for example, hospital, home care, long term care, practitioner office). Includes automated and paper medical record systems.

Military Time  A 24-hour period from midnight to midnight using a 4-digit number of which the first two digits indicate the hour and the last two digits indicate the minute.

Missing Data  No values present for one or more data elements that are required for calculating and/or risk adjusting a national hospital inpatient quality measure. Refer to the Missing and Invalid Data section for further information.

Mode  The most frequently occurring response for that data element.

Module  A set of measures under a common group/topic area (e.g., infection module).

National Hospital Inpatient Quality Measure  A standardized performance measure that meets the Centers for Medicare & Medicaid Services and Joint Commission evaluation criteria, has precisely defined specifications, can be uniformly embedded in extant systems, has standardized data collection protocols to permit uniform implementation by health care organizations and permit comparisons of health care organization performance over time through the establishment of a national comparative data base.

National Hospital Inpatient Quality Measure Set  A unique grouping of performance measures carefully selected to provide, when viewed together, a robust picture of the care provided in a given area (e.g., cardiovascular care).

Non-Core Measure  A performance measure defined by the ORYX Vendor that has undergone review against Joint Commission established measure criteria and has been accepted for use in the ORYX initiative.
**Neonatal Intensive Care Unit (NICU)**  A patient care area that provides level III care to infants who are critically ill. Most NICU infants are under the care of a pediatrician who is a neonatalogist, and the ratio of infants to nurses in the NICU is low (e.g., 2:1). If the population of a NICU is a combination of level II and III care patients and their distribution and placement is such that they cannot readily be separated for purposes of determining the measure population (NSC 7 and NSC 8) you may classify the entire unit as NICU II/III.

**Nosocomial Infection**  An infection acquired by a patient in a health care organization, especially a hospital. This infection is not present or incubating before admission to a hospital.

**Numerator**  The upper portion of a fraction used to calculate a rate, proportion, or ratio.

**Numerator Data Elements**  Those data elements necessary or required to construct the numerator.

**Numerator Statement**  A statement that depicts the portion of the denominator population that satisfies the conditions of the performance measure to be an indicator event. For example, “AMI patients (cigarette smokers) who receive smoking cessation advice or counseling during the hospital stay”.

**Nursing Care Hours (NCH)**  Actual productive, direct patient care hours worked, not budgeted or scheduled hours that excludes vacation, sick time, orientation, education or committee time.

**Nursing-Centered Intervention Measures**  Measures that focus on aspects of nursing intervention and processes of care provided by nursing personnel. Based on the organization, nature, and quality of nursing care processes.

**Nursing-Sensitive, Nursing-Sensitive Processes and Outcomes**  Processes and outcomes (and structural proxies for these processes and outcomes, e.g., skill mix, nurse staffing hours) are affected, provided, and/or influenced by nursing personnel, but nursing is not exclusively responsible for them. Nursing-sensitive measures must be quantifiably influenced by nursing personnel, but the relationship is not necessarily causal.

**Observed Rate**  The observed rate is the measure rate that is based on a hospital’s aggregated data for the reporting period. This is calculated as the number of measure numerator cases for the reporting period divided by the number of denominator cases. Observed rates are used to measure hospital performances.

**ORYX® Vendor**  An entity consisting of an automated database(s), that facilitates performance improvement in health care organizations through the collection and dissemination of process and/or outcome measures of performance. ORYX Vendors must be able to generate internal comparisons of organization performance over time.
and external comparisons of performance among participating organizations at comparable times.

**Parenteral** Not through the alimentary canal but rather by injection through some other route, as subcutaneous, intramuscular, intraorbital, intracapsular, intraspinal, intrasternal, intravenous, etc.

**Paroxysmal** Occurring as sudden or periodic attacks or recurrences of symptoms of a disease; exacerbation.

**Patient Days** Conceptually, a patient day is 24 hours, beginning the hour of admission as measured by daily or period censuses. Facilities should use all data available to them to represent a complete count of the total number of patients per unit, including "days" of care provided to short stay patients.

**Patient Level Data** Collection of data elements that depict the health care services provided to an individual (patient). Patient level data are aggregated to generate hospital level data and comparison group data.

**Patient Survey (Data Source)** Survey data are exclusively obtained from patients and/or their family members/significant others.

**Percentile** A value on a scale of 100 that indicates the percentage of a distribution that is equal to or below it.

**Performance Measure** A quantitative tool (for example, rate, ratio, index, percentage) that provides an indication of an organization's performance in relation to a specified process or outcome. Refer to the *Process Measure* and the *Outcome Measure* in Appendix E.

**Performance Measurement System’s Extranet Track (PET)** A secured electronic information and message center available to the Joint Commission’s ORYX Vendors. Access to the Internet and a browser are necessary to connect to PET. Access to PET is available by clicking on the “The Joint Commission Connect” link button on the Joint Commission’s home page [http://www.jointcommission.org](http://www.jointcommission.org).

**Physical Restraint** Any manual method, physical or mechanical device, material, or equipment that immobilizes or reduces the ability of a patient to move his or her arms, legs, body or head freely. CMS Hospital Conditions of Participations: Interpretive Guidelines available at [http://www.cms.hhs.gov](http://www.cms.hhs.gov) accessed February 2009.

**Pneumonia** Pneumonia is defined as an acute infection of the pulmonary parenchyma that is associated with at least some symptoms of acute infection, accompanied by presence of acute infiltrate on chest radiograph or auscultatory findings consistent with pneumonia (such as altered breath sounds and/or localized rales).
Population In statistics this term is used to describe the finite or infinite collection of “units” which often refer to people, institutions, events, etc.

Predicted Value The statistically expected response or outcome for a patient after the risk adjustment model has been applied and the patient’s unique set of risk factors have been taken into account.

Pressure Ulcer A pressure ulcer is localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear. A number of contributing or confounding factors are also associated with pressure ulcers; the significance of these factors is yet to be elucidated.

Prevalence Measure A method that provides a point-in-time “snapshot” of an attribute or event at one point in time.

Prevalence Study A cross-sectional survey or study method that provides a point-in-time “snapshot” of an attribute or event at one point in time.

Primary Bloodstream Infections Primary bloodstream infections are classified according to the criteria used, either as laboratory-confirmed infection (LCBI) or clinical sepsis (CSEP). CSEP may be used to report only a primary BSI in neonates (< 30 days old) and infants (< 1 year old).

Process An interrelated series of events, activities, actions, mechanisms, or steps that transform inputs into outputs.

Productive Hours Actual direct hours worked, not budgeted or scheduled hours. Excludes vacation, sick time, orientation, education leave, or committee time.

Proportion Measure A measure which shows the number of occurrences over the entire group within which the occurrence should take place (e.g., AMI patients who received aspirin within 24 hours before or after hospital arrival over all AMI patients).

Randomization A technique for selecting or assigning cases such that each case has an equal probability of being selected or assigned. It is done to stimulate chance distribution, reduce the effects of confounding factors, and produce unbiased statistical data.

Range A measure of the spread of a data set. The difference between the smallest and largest observation.

Rate-Based (Measure) An aggregate data measure in which the value of each measurement is expressed as a proportion or as a ratio. In a proportion, the numerator is expressed as a subset of the denominator (for example, AMI patients who received aspirin within 24 hours before or after hospital arrival over all AMI patients). In a ratio, the numerator and denominator measure different phenomena (for example, the
number of patients with central lines who develop infections divided by the number of central line days).

**Rate** Derived by dividing the numerator (e.g., cases that meet the criterion) by the denominator (e.g., all cases to which the criterion applies) within a given time frame. In other words, the numerator is a subset of the denominator.

**Rationale** An explanation of why an indicator is useful in specifying and assessing the process or outcome of care measured by the indicator. The rationale may include supportive evidence such as published literature, unpublished studies, focus group results, etc.

**Ratio** A relationship between two counted sets of data, which may have a value of zero or greater. In a ratio, the numerator is not necessarily a subset of the denominator (e.g., pints of blood transfused to number of patients discharged).

**Registered Nurse (RN)** The role of registered nurses is determined by state-level boards of nursing through nursing practice acts; the NCSBN has developed model nursing practice act language at [www.ncsbn.org/public/regulation/nursing_practice_model_practice_act.htm](http://www.ncsbn.org/public/regulation/nursing_practice_model_practice_act.htm)

**Reliability** The ability of the indicator to accurately and consistently identify the events it was designed to identify across multiple health care settings.

**Repeat Fall** More than one fall by the same patient in the same month may be classified as a repeat fall.

**Reporting Hospital Data for Annual Payment Update** The Reporting Hospital Quality Data for Annual Payment Update (RHQDAPU) initiative is intended to empower consumers with quality of care information to make more informed decisions about their health care, while encouraging hospitals and clinicians to improve the quality of inpatient care provided to all patients. The hospital quality of care information gathered through the RHQDAPU initiative is available to consumers on the Hospital Compare website.

**Reporting Period** The defined time period which describes the patient's end-of-service.

**Risk Adjusted Measures** Measures that are risk adjusted using statistical modeling or stratification methods.

**Risk Adjusted Rate** A rate that takes into account differences in case mix to allow for more valid comparisons between groups.
**Risk Adjustment**  A statistical process for reducing, removing, or clarifying the influences of confounding factors that differ among comparison groups (for example, logistic regression, stratification).

**Risk Adjustment Model**  The statistical algorithm that specifies the numerical values and the sequence of calculations used to risk adjust (e.g., reduce or remove the influence of confounding factors) performance measures.

**Risk Factor**  A factor that produces or influences a result. In statistics, an independent variable used to identify membership of qualitatively different groups.

**Risk Factor Value**  A specific value assigned to a risk factor for a given episode of care (EOC) record.

**Risk Model**  The statistical algorithm that specifies the numerical values and the sequence of calculations used to risk adjust (e.g., reduce or remove the influence of confounding factors) performance measures.

**Sampling Frequency**  If a hospital chooses to sample, they may sample data on either a monthly or quarterly basis. Refer to the “Sample Size Requirements” discussion in the Population and Sampling Specifications section for further information.

**Sampling**  A basic statistical technique or process consisting of drawing a limited number of measurements from a larger source (population) and then analyzing those measurements to estimate characteristics of the population from which the measurements have been drawn.

**NSC Sampling Method**  Describes the process used to select a sample. Possible approaches to sampling include simple random sampling, cluster sampling, systematic sampling and judgment sampling.

**Sampling Method**  Describes the process used to select a sample. Sampling approaches for national hospital inpatient quality measures are simple random sampling, and systematic sampling. Refer to the “Sampling Approaches” discussion in the Population and Sampling Specifications section for further information.

**Sample Size**  The number of individuals or particular patients included in a study. Usually chosen so that the study has a particular statistical power of detecting an effect of a particular size. Refer to the “Sample Size Requirements” discussion in the Population and Sampling Specifications for further information.

**Score**  A rating, usually expressed as a number, and based on the degree to which certain qualities or attributes are present (e.g., Glasgow coma, ASA scores).

**Severity**  The degree of biomedical risk; or mortality of medical treatment.
**Short Stay Patients**  Patients who are not classified as in-patients. Various called short stay, observation, or same day surgery patients who receive care on in-patient units for all or part of a day.

**Simple Random Sample**  A process in which a sample of data is selected from the total population in such a way that every case has the same chance of being selected and that the sample size is met. Refer to the “Sampling Approaches” discussion in the Population and Sampling Specifications section for further information.

**Sitter**  A sitter is defined as a person employed or assigned to an individual patient, to constantly observe the patient’s behavior and protect them from harm such as falling, wondering, pulling on equipment, etc. As an example, sitter may be employed to protect a patient from harm as an alternative to restraining the patient. The sitter may be arranged for by the facility or on behalf of the patient by their family, friends, or guardian. Sitters are often nursing assistants, whose primary responsibility is constant observation and protection; however, depending on the skill set of the sitter, they may also be assigned other patient care duties such as assistance with activities of daily living.

**Standard Deviation**  A measure of variability that indicates the dispersion, spread, or variation in a distribution.

**Strata**  See stratified measure.

**Stratification**  A form of risk adjustment which involves classifying data into strata based on one or more characteristics, variables, or other categories.

**Stratification Based Approach for Risk Adjustment**  The process of dividing or classifying subgroups known as strata in order to facilitate more valid comparisons. For example, a measure’s outcome may be divided into type of surgery-specific categories or strata.

**Stratified Measure**  A performance measure that is classified into a number of strata to assist in analysis and interpretation. The overall or un-stratified measure evaluates all of the strata together. The stratified measure or each stratum consists of a subset of the overall measure. For example, surgical patients who received a prophylactic antibiotic within one hour prior to surgical incision is reported as all surgical patients with the appropriate *ICD-9-CM Principal Procedure Code*, who received the prophylactic antibiotic within one hour prior to surgical incision; however, the stratified measure(s) for SCIP-Inf-1 is reported by the specific ICD-9-CM Principal Procedure, such as CABG (SCIP-Inf-1b) or Other Cardiac Surgery (SCIP-Inf-1c).

**Stratum**  See stratified measure.

**Sub-Population**  A population that is part of a larger population. For example, the measure set VTE evaluates all patients in the hospital. This measure set is broken into...
three distinct sub-populations: No VTE (VTE-1 and VTE-2), Principal VTE (VTE-3, VTE-4, and VTE-5), and Other VTE Only (VTE-3, VTE-4, VTE-5, and VTE-6).

**Surgical Care Improvement Project (SCIP)** The Surgical Care Improvement Project (SCIP) is a national quality partnership of organizations focused on improving surgical care by significantly reducing surgical complications through performance measurement. Utilizing ten process measures in three separate modules (infection, cardiac, and VTE), the goal is to reduce the incidence of surgical complications nationally by 25 percent by the year 2010.

**Surgical Infection Prevention (SIP)** In August of 2002, the Centers for Medicare & Medicaid Services and the Centers for Disease Control and Prevention collaborated to develop the Surgical Infection Prevention project. The Medicare Surgical Infection Prevention Project was started with the single objective - to decrease morbidity and mortality associated with postoperative infection in the Medicare patient population. As of July 2006 discharges, the three SIP measures become the first three SCIP infection measures.

**Systematic Random Sampling** A process in which the starting case is selected randomly, and the next cases are selected according to a fixed interval that is based upon the number of cases in the population. For example, the starting case is the second patient that arrives at the hospital. This patient and every subsequent fifth patient becomes part of the random sample until the sample size is reached. Refer to the “Sampling Approaches” discussion in the Population and Sampling Specifications section for further information.

**System-Centered Measures** Measures that are focused on system-level organizational effectiveness and efficiency that influences and is influenced by healthcare, including the provision of care by nursing staff and their performance. Based on the structural, organizational, work process, and work design-related elements of the work environment.

**Transmission Schedule** The schedule of dates on which data are expected to be transmitted to The Joint Commission and the QIO Clinical Warehouse.

**Umbilical Catheter** A central vascular infusion device inserted through the umbilical artery/vein.

**Unable to Determine (UTD)** Each data element that is applicable per the algorithm for each of the measures within a topic must be “touched” by the abstractor. While there is an expectation that all data elements are collected, it is recognized that in certain situations information may not be available (i.e., dates, times, codes, etc.). If, after due diligence, the abstractor determines that a value is not documented or is not able to determine the answer value, the abstractor must select “Unable to Determine (UTD)” as the answer.
Unit ID /Numeric Code An assigned unique unit ID number.

Unlicensed Assistive Personnel (UAP) Individuals trained to function in an assistive role to nurses in the provision of patient care, as delegated by and under the supervision of the registered nurse. Typical activities performed by UAPs may include (but are not limited to): Taking vital signs; Bathing, feeding, or dressing patients; Assisting patient with transfers, ambulation, or toileting. In some states assistive personnel are licensed.

Validation The process by which the integrity and correctness of data are established. Validation processes can occur immediately after a data item is collected or after a complete set of data are collected. The Centers for Medicare & Medicaid Services (CMS) chart level validation will validate the data at several levels. There are consistency and internal edit checks to assure the integrity of the submitted data; there are external edit checks to verify expectations about the volume of the data received, and there will be chart level audits to assure the reliability of the submitted data. Information on these procedures is available on http://www.qualitynet.org.

Validity Ability to identify opportunities for improvement in the quality of care; demonstration that the indicator use results in improvements in outcomes and/or quality of care.

Variance Equal to the square of the standard deviation.

Venous Thromboembolism (VTE) A term that includes deep vein thrombosis and/or pulmonary embolism.

Ventilator A device to assist or control respiration continuously, inclusive of the weaning period, through a tracheostomy or by endotracheal intubation. Note: Lung expansion devices such as intermittent positive pressure breathing (IPPB); nasal positive end-expiratory pressure (PEEP); continuous nasal positive airway pressure (CPAP, hypoCPAP) are not considered ventilators unless delivered via tracheostomy or endotracheal intubation (e.g., ET-CPAP).

Verification The process used to ensure consistent implementation of core measure algorithms specified in this manual across disparate ORYX Vendors.

Voluntary Turnover Voluntary turnover or voluntary uncontrolled separation is defined within the context of this performance measure set as separations that are primarily due to employee dissatisfaction with their job (including aspects such as compensation, work environment, team members, or management); excluding other recognized causes of separation such as relocation, retirement or termination.
Selected Sources:


McHorney, CA, Kosinski, M, and Ware, Jr., JE, “Comparisons of the Cost and Quality of Norms for the SF-36 Health Survey Collected by Mail Versus Telephone Interview: Results From a National Survey,” *Medical Care*, 32, (1994), 551-567.


NSC Selected Sources

*Codebook Part II Acute Care Version January 1, 2005 Revision, California Nursing Outcomes; Coalition Project*

Guidelines for Data Collection and Submission on Quarterly Indicators, Version 5.0, The American Nurses Association


VHA Inc.
Appendix B
Overview of Measure Information Form and Flowchart Formats

Measure Information Form Introduction

Measure Set
The specific national hospital quality measure set, to which an individual measure belongs (for example, acute myocardial infarction, pneumonia).

Set Measure ID #
A unique alpha-numeric identifier assigned to a measure. Information associated with a measure is identified by this unique alpha-numeric number.

Performance Measure Name
A brief title that uniquely identifies the measure.

Description
A brief explanation of the measure’s focus, such as the activity or the area on which the measure centers attention (for example, pain management for terminally ill patients).

Rationale
An explanation that states why it is important to receive data/information on this measure. This may include specific literature references, evidence based information, expert consensus, etc.

Type of Measure
Indicates whether the measure is used to examine a process or an outcome over time.

- **Process:** A measure used to assess a goal directed, interrelated series of actions, events, mechanisms, or steps, such as measure of performance that describes what is done to, for, or by patients, as in performance of a procedure.

- **Outcome:** A measure that indicates the result of performance (or non-performance) of a function(s) or process(es).

Improvement Noted As
Describes how improvement would be indicated by the measure.

- An increase in the rate/score/number of occurrences (for example, immunizations)
- A decrease in the rate/score/number of occurrences (for example, surgical site infections)
- Either an increase or a decrease in the rate/score/number of occurrences, depending upon the context of the measure (for example, utilization)

Numerator Statement
Represents the population/events that satisfy the conditions of the performance measure to be an indicator event.
NOTE: If the measure is reported as a rate (proportion or ratio), the Numerator and Denominator Statement are completed. If a performance measure does not have both a numerator and a denominator, then a Continuous Variable Statement is completed.

**Included Population in Numerator**
Specific information describing the population/event(s) comprising the numerator, not contained in the numerator statement, or not applicable. Population inclusion information described in the denominator statement is not repeated.

**Excluded Population in Numerator**
Specific information describing the population/event(s) that should not be included in the numerator, or none. Population exclusion information described in the denominator statement is not repeated.

**Data Elements**
Those data elements necessary or required to construct the numerator.

**Denominator Statement**
Represents the population/count data evaluated by the performance measure.  
NOTE: If measure is reported as a rate (proportion or ratio), the Numerator and Denominator Statement are completed. If a performance measure does not have both a numerator and a denominator, then a Continuous Variable Statement is completed.

**Included Population in Denominator**
Specific information describing the population/count data comprising the denominator, not contained in the denominator statement or not applicable.

**Excluded Population in Denominator**
Specific information describing the population/count data that should not be included in the denominator, or none.

**Data Elements**
Those data elements required to construct the denominator.

**Continuous Variable Statement**
Describes an aggregate data measure in which the value of each measurement can fall anywhere along a continuous scale.  
NOTE: If measure is reported as a central tendency, Continuous Variable Statement is completed. This item is only completed when the performance measure does not have numerator and denominator statements.

**Included Population in Continuous Variable**
Specific information describing the population(s) comprising the performance measure, not contained in the continuous variable statement or not applicable.

**Excluded Population in Continuous Variable**
Specific information describing the population(s) that should not be included in the performance measure or none.
Date Elements  
Those data elements required to construct the measure for a continuous variable.

Risk Adjustment  
Indicates whether a measure is subject to the statistical process for reducing, removing, or clarifying the influences of confounding factors to allow more useful comparisons.

Data Collection Approach  
Recommended timing for when data should be collected for a measure. Data collection approaches include retrospective, concurrent or prospective data collection.  
Retrospective data collection involves collecting data for events that have already occurred. Concurrent data collection is the process of gathering data on how a process works or is working while a patient is in active treatment. Prospective data collection is data collection in anticipation of an event or occurrence.

Data Accuracy  
Recommendations to reduce identifiable data errors, to the extent possible.

Measure Analysis Suggestions  
Recommendations to assist in the process of interpreting data and drawing valid conclusions.

Terminology  
Definitions for terms used within the measure.

Sampling  
Indicates whether a measure is amenable to selecting a random subset of a population in order to estimate the organization’s performance level without collecting data for the entire population.

Data Reported As  
Indicates how data will be reported for a measure.

- Aggregate rate generated from count data reported as a proportion (for example, rate-based measures which report summary data generated from the number of Cesarean sections as a proportion of deliveries)
- Aggregate rate generated from count data reported as a ratio (for example, bloodstream infection per 1,000 line days)
- Aggregate measures of central tendency (for example, continuous variables which report means and medians such as length of stay).

Selected References  
Specific literature references that are used to support the importance of the performance measure.
Appendix C

Resources

The following are available resources to those using the Nursing-Sensitive Care Implementation Guide.

ORYX® Vendors
If you are an ORYX Vendor with questions about Implementation Guide, please contact The Joint Commission’s Division of Quality Measurement and Research at http://manual.jointcommission.org/.

Abstraction or Measure Questions
The Joint Commission, please submit to http://manual.jointcommission.org/.

Agency for Healthcare Research and Quality (AHRQ)
http://www.ahrq.gov/
Patient Safety Indicator (PSI) Technical Specifications Version 4.0 (June 2009):
http://www.qualityindicators.ahrq.gov/psi_download.htm

For questions regarding the technical specifications for the Agency for Healthcare Research and Quality’s (AHRQ) Patient Safety Indicators (PSIs) and Inpatient Quality Indicators (IQIs), contact: support@qualityindicators.ahrq.gov Or: (888) 512–6090

For questions regarding CMS’ calculations of the PSIs and IQIs for the RHQDAPU program, contact: AHRQmeasuresforRHQDAPU@mathematica-mpr.com

Centers for Disease Control and Prevention
http://www.cdc.gov/
http://www.cdc.gov/nhsn/.

National Uniform Billing Committee (NUBC)
Appendix D:  
Miscellaneous Tables

TABLE 1. International NPUAP-EPUAP Pressure Ulcer Guidelines

Used in measure NSC-2 Pressure Ulcer Prevalence

International NPUAP-EPUAP Pressure Ulcer Definition
A pressure ulcer is localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear. A number of contributing or confounding factors are also associated with pressure ulcers; the significance of these factors is yet to be elucidated.

NPUAP / EPUAP Pressure Ulcer Classification System

Category/Stage I: Non-blanchable erythema
Intact skin with non-blanchable redness of a localized area usually over a bony prominence. Darkly pigmented skin may not have visible blanching; its color may differ from the surrounding area. The area may be painful, firm, soft, warmer or cooler as compared to adjacent tissue. Category/Stage I may be difficult to detect in individuals with dark skin tones. May indicate “at risk” persons.

Category/Stage II: Partial thickness
Partial thickness loss of dermis presenting as a shallow open ulcer with a red pink wound bed, without slough. May also present as an intact or open/ruptured serum-filled or sero-sanguinous filled blister. Presents as a shiny or dry shallow ulcer without slough or bruising*. This category/stage should not be used to describe skin tears, tape burns, incontinence associated dermatitis, maceration or excoriation.

*Bruising indicates deep tissue injury.

Category/Stage III: Full thickness skin loss
Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon or muscle are not exposed. Slough may be present but does not obscure the depth of tissue loss. May include undermining and tunneling. The depth of a Category/Stage III pressure ulcer varies by anatomical location. The bridge of the nose, ear, occiput and malleolus do not have (adipose) subcutaneous tissue and Category/Stage III ulcers can be shallow. In contrast, areas of significant Quick Reference Guide Prevention 8 adiposity can develop extremely deep Category/Stage III pressure ulcers. Bone/tendon is not visible or directly palpable.

Category/Stage IV: Full thickness tissue loss
Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present. Often includes undermining and tunneling. The depth of a Category/Stage IV pressure ulcer varies by anatomical location. The bridge of the nose, ear, occiput and malleolus do not have (adipose) subcutaneous tissue and these ulcers can be shallow.
Category/Stage IV ulcers can extend into muscle and/or supporting structures (e.g., fascia, tendon or joint capsule) making osteomyelitis or osteitis likely to occur. Exposed bone/muscle is visible or directly palpable.

**Additional Categories for the USA**

**Unstageable/ Unclassified: Full thickness skin or tissue loss – depth unknown**
Full thickness tissue loss in which actual depth of the ulcer is completely obscured by slough (yellow, tan, gray, green or brown) and/or eschar (tan, brown or black) in the wound bed. Until enough slough and/or eschar are removed to expose the base of the wound, the true depth cannot be determined; but it will be either a Category/Stage III or IV. Stable (dry, adherent, intact without erythema or fluctuance) eschar on the heels serves as “the body’s natural (biological) cover” and should not be removed.

**Suspected Deep Tissue Injury – depth unknown**
Purple or maroon localized area of discolored intact skin or blood-filled blister due to damage of underlying soft tissue from pressure and/or shear. The area may be preceded by tissue that is painful, firm, mushy, boggy, warmer or cooler as compared to adjacent tissue. Deep tissue injury may be difficult to detect in individuals with dark skin tones. Evolution may include a thin blister over a dark wound bed. The wound may further evolve and become covered by thin eschar. Evolution may be rapid exposing additional layers of tissue even with optimal treatment.

**Source:**
### TABLE 2. Patient Day Reporting Methods Table

Used in measures NSC-4 Patient Falls, NSC-5 Falls with Injury, and NSC-10 Nursing Care Hours Per Patient Day

<table>
<thead>
<tr>
<th>Method</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Method 1 Midnight Census</strong></td>
<td>This is accurate for units that have all in-patient admission. It is the least accurate methods for units that have both in-patient and short stay patients. The daily number should be summed for every day in the month.</td>
</tr>
<tr>
<td><strong>Method 2 Midnight Census + Patient Days from Actual Hours for Short Stay Patients</strong></td>
<td>This is an accurate method for units that have both in-patients and short stay patients. The short stay “days” should be reported separately from midnight census and summed to obtain patient days. The total daily hours for short stay patients should be summed for the month and divided by 24.</td>
</tr>
<tr>
<td><strong>Method 3 Patient Days from Actual Hours</strong></td>
<td>This is the <strong>most accurate</strong> method. An increasing number of facilities have accounting systems that track the actual time spent in the facility by each patient. Sum the actual hours for all patients, whether in-patient or short stay, and divide by 24.</td>
</tr>
<tr>
<td><strong>Method 4 Patient Days Averaged from Multiple Census Reports</strong></td>
<td>Some facilities collect census multiple times per day (e.g., every 4 hours or each shift). This method is more accurate than the Midnight Census, but not as accurate as Midnight Census + Actual Short Stay Hours or as Actual Patient Hours. A sum of the daily average censuses can be calculated to determine patient days for the month on the unit.</td>
</tr>
</tbody>
</table>

Note: For all patient day reporting methods, it is recommended that hospitals consistently use the same method for a reporting unit over time. However, units with short stay patients should transition either to Method 2 or Method 3 when it becomes feasible.

Source:
American Nurses Association (ANA) – National Database for Nursing Quality Indicators (NDNQI)
**TABLE 3. Unit Structure Definitions**

Used in measures NSC-2 Pressure Ulcer Prevalence, NSC-3 Restraint Prevalence, NSC-4 Patient Falls, NSC-5 Falls with Injury, NSC-9 Skill Mix, NSC-10 Nursing Care Hours Per Patient Day, NSC-11 Voluntary Turnover, and NSC-12 PES-NWI

<table>
<thead>
<tr>
<th>Unit Type Name</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Care-adult</td>
<td>90% or greater of the patients served on this unit require the highest level of care, includes all types of intensive care units. Specialty designations may include: Burn, Cardiothoracic, Coronary Care, Medical, Neurology, Pulmonary, Surgical and Trauma ICU.</td>
</tr>
<tr>
<td>Step-Down-adult</td>
<td>90% or greater of the patients served on this unit require a lower level of care than critical care units and higher level of care than provided on medical-surgical units. Examples include progressive care or intermediate care units. Telemetry is not an indicator of acuity level. Specialty designations may include: Med-Surg, Medical or Surgical Step-Down units.</td>
</tr>
<tr>
<td>Medical-adult</td>
<td>90% or greater of the patients served on this unit are admitted to medical services, such as internal medicine, family practice, or cardiology. Specialty designations may include: Bone M arrow Transplant, Cardiac, Gastro-intestinal, Infectious Disease, Neurology, Oncology, Renal or Respiratory Medical units.</td>
</tr>
<tr>
<td>Surgical-adult</td>
<td>90% or greater of the patients served on this unit are admitted to surgical services, such as general surgery, neurosurgery, or orthopedics. Specialty designations may include: Bariatric, Cardiothoracic, Gynecology, Neurosurgery, Orthopedic, Plastic Surgery, Transplant or Trauma Surgical unit.</td>
</tr>
<tr>
<td>Med-Surg Combined-adult</td>
<td>Patients served on this unit are patients admitted to either medical or surgical services with less than 90% of one type. Specialty designations include: Cardiac, Neuro/Neurosurgery or Oncology med-surg combined units.</td>
</tr>
<tr>
<td>Mixed Acuity-adult</td>
<td>Patients served on this unit are patients with less than 90% of one level of acuity such as combined ICU and step-down beds, or step-down beds on a med-surg floor or universal bed units.</td>
</tr>
</tbody>
</table>

Note:
To select the unit types first determine the acuity level of the patients typically served on the unit. If the unit has 90% or greater of the same acuity type, select that acuity level. If the unit acuity level does not meet the criteria of 90% or greater for one acuity level type, then select mixed acuity unit. For example, if 90% or greater of the patients typically served on the unit require the highest level of care select critical care unit; if the unit has 30% step-down or intermediate level of care and 70% med-surg patients select...
mixed acuity unit; if the level of acuity is med/surg, and the unit typically serves 90% or greater surgical patients select surgical unit type; if the unit acuity level is med/surg and serves 60% medical and 40% surgical, select med-surg combined unit. To select a specialty unit or location type the patients served must be 80% or greater of the same specialty type to select the specialty or location type. For example if 80% of the patients served are cardiac surgery select surgical cardiothoracic critical care. For NSC 6, 7, and 8 when selecting the Location or Location of Attribution data element and the unit does not meet the criteria of 80% of one specialty type, the location should be mapped to the CDC Location equivalent specialty type.

**Source:**
American Nurses Association (ANA) – National Database for Nursing Quality Indicators (NDNQI)
**TABLE 4. ICU Location Definitions**

Used in measures NSC-6 CAUTI, NSC-7 CLABSI, and NSC-8 VAP

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burn-Critical Care - Adult</td>
<td>B-Adult</td>
</tr>
<tr>
<td>Medical Cardiac Critical Care</td>
<td>MC-Adult</td>
</tr>
<tr>
<td>Surgical Cardiothoracic Critical Care</td>
<td>SCT-Adult</td>
</tr>
<tr>
<td>Medical Critical Care</td>
<td>M-Adult</td>
</tr>
<tr>
<td>Combined medical-surgical Critical Care-Adult major teaching hospital</td>
<td>MS1-Adult</td>
</tr>
<tr>
<td>Combined medical-surgical Critical Care-Adult (hospitals other than major teaching)</td>
<td>MS0</td>
</tr>
<tr>
<td>Neurologic Critical Care-Adult</td>
<td>N-Adult</td>
</tr>
<tr>
<td>Neurosurgical Critical Care-Adult</td>
<td>NS-Adult</td>
</tr>
<tr>
<td>Respiratory Critical Care-Adult</td>
<td>R-Adult</td>
</tr>
<tr>
<td>Surgical Critical Care-Adult</td>
<td>S-Adult</td>
</tr>
<tr>
<td>Trauma Critical Care-Adult</td>
<td>T-Adult</td>
</tr>
<tr>
<td>Burn Critical Care-Pediatric</td>
<td>B-Ped</td>
</tr>
<tr>
<td>Cardiothoracic Critical Care-Pediatric</td>
<td>CT-Ped</td>
</tr>
<tr>
<td>Medical Critical Care-Pediatric</td>
<td>M-Ped</td>
</tr>
<tr>
<td>Medical-Surgical Critical Care</td>
<td>MS-Ped</td>
</tr>
<tr>
<td>Neurosurgical Critical Care-Pediatric</td>
<td>NS-Ped</td>
</tr>
<tr>
<td>Respiratory Critical Care-Pediatric</td>
<td>R-Ped</td>
</tr>
<tr>
<td>Surgical Critical Care-Pediatric</td>
<td>S-Ped</td>
</tr>
<tr>
<td>Trauma Critical Care-Pediatric</td>
<td>T-Ped</td>
</tr>
</tbody>
</table>

Note:
To select the unit types first determine the acuity level of the patients typically served on the unit. If the unit has 90% or greater of the same acuity type, select that acuity level. If the unit acuity level does not meet the criteria of 90% or greater for one acuity level type, then select mixed acuity unit. For example, if 90% or greater of the patients typically served on the unit require the highest level of care select critical care unit; if the unit has 30% step-down or intermediate level of care and 70% med-surg patients select mixed acuity unit; if the level of acuity is med/surg, and the unit typically serves 90% or greater surgical patients select surgical unit type; if the unit acuity level is med/surg and serves 60% medical and 40% surgical, select med-surg combined unit.
To select a specialty unit or location type the patients served must be 80% or greater of the same specialty type to select the specialty or location type. For example if 80% of the patients served are cardiac surgery select surgical cardiothoracic critical care. For NSC 6, 7, and 8 when selecting the Location or Location of Attribution data element and the unit does not meet the criteria of 80% of one specialty type, the location should be mapped to the CDC Location equivalent specialty type.

Source:
TABLE 5. Calculation of Monthly Nursing Care Hours

Used in measures NSC-9 Skill Mix and NSC-10 Nursing Care Hours Per Patient Day

\[ \text{Monthly Hours} = \sum \text{Hours in pay period} \times \frac{\text{# of days in pay period falling in current month}}{14} \]

Suppose a bi-weekly pay period begin on Saturday 29\textsuperscript{th} of the previous month. There are 11 days of this pay period in the current month. So multiply Nursing care hours in this pay period by \( \frac{11}{14} \).

The next pay period is completely contained in the month. The last pay period has 5 days in the current month. So multiply payroll hours in this pay period by \( \frac{5}{14} \).
Example:

<table>
<thead>
<tr>
<th>Nursing Care Hours</th>
<th>Number of Days in Current Month</th>
<th># of days in month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay Period 1</td>
<td>560</td>
<td>11</td>
</tr>
<tr>
<td>Pay Period 2</td>
<td>630</td>
<td>14</td>
</tr>
<tr>
<td>Pay Period 3</td>
<td>588</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total in this Month</strong></td>
<td><strong>30</strong></td>
<td></td>
</tr>
</tbody>
</table>

There are 1280 Nursing care hours for this month.

**Source:**
American Nurses Association (ANA) – National Database for Nursing Quality Indicators (NDNQI)
Appendix E
Prevalence Study Methodology

General Information
The time and staff required to do a prevalence study depends on the size of the hospital and the units as well as the study team’s experience in conducting the observation, extracting required data elements from the clinical record and documenting the information. Experienced sites have indicated that the prevalence study process requires some learning at first and benefits from a core group of staff that is very skilled in the study area. This greatly improves the validity and reliability of the data. Other suggestions include the pairing of less experienced staff with experts, in teams, to provide a rich teaching/learning experience and as a valuable competency development strategy. It is also important that the study team(s) has (have) at least one planning/training session prior to the day on which the study is conducted.

For those organizations that are members of a multi-hospital system, it may be beneficial to consider the development of an expert team to travel between hospitals. In this way, the expertise and efficiency of the prevalence study is maximized. Another suggestion is to have sites mentor one another -- so if this is your organization’s first prevalence study, consider observing, first hand, another site conduct their prevalence study. The insight and experience gained can then be applied as your organization plans and conducts its own first study. Finally, some hospitals have found it convenient to conduct the pressure ulcer and restraint prevalence studies at the same time.

Prevalence Study Procedures

1) Assign a coordinator
A coordinator should be selected who has organizational, problem-solving and leadership skills. Responsibilities of the coordinator include communications, selecting the study date, finalizing the data collection tool, training the data collectors, managing questions/concerns, and assuring the data are collated. The coordinator should ensure that all observers are trained in the study methodology and observation techniques. The coordinator should also monitor Inter-rater (inter-observer) reliability as an important component of data quality assessment.

2) Determine Who Will Conduct the Study
a. Pressure Ulcer Prevalence: A combination of exempt nurses with current clinical skills (e.g., ET nurses, clinical nurse specialists, educators, and unit managers) and staff nurse experts should be considered for the inspection team. Chart review may be conducted concurrently by other staff with skill in reading documentation. Using a “team” for the observation portion of the study may be helpful for conducting skin inspection (e.g., to help turn immobile patients for inspection). To help decrease the likelihood of bias in observation, consider assigning observation team members to study units other than their regularly assigned work unit. Resources required will vary based on the efficiency of the teams and the amount of data desired by the facility.
b. **Restraint Use Prevalence**: To help decrease the likelihood of bias in observation, consider assigning observation team members to study units other than their regularly assigned work unit. Resources required will vary based on the efficiency of the teams and the amount of data desired by the facility.

3) **Train Those Who Will Conduct the Study**
   a. **Pressure Ulcer Prevalence**: Training in skin inspection and pressure ulcer staging/categorization is required prior to study participation. One option would be to have an ET nurse or clinical expert organize a training session on the EPUAP/NPUAP Pressure Ulcer Guidelines.
   b. **Restraint Use Prevalence**: Not applicable.

4) **Observation**
   a. **Pressure Ulcer Prevalence**: Inspect all bony prominences including the traditional areas such as the coccyx but also areas such as heels, elbows, ears, and posterior cranium on bedridden patients. If using teams, be sure one person is a skin expert. Any pressure ulcers found are staged/categorized and recorded on the data collection tool. Facilities may opt to also measure/photograph ulcers for their quality programs.
   b. **Restraint Use Prevalence**: Each patient on the assigned unit is observed (i.e., observations are not to be referred by staff for those patients thought to be restrained).

5) **Chart Review**
   a. **Pressure Ulcer Prevalence**: Each patient’s chart is also reviewed for demographic data, documentation relative to risk assessment and, if the Braden Scale is used, Total and Subscale Scores on admission for all patients with stage/category I or greater ulcers. Sites may also decide to inspect documentation related to skin care or other standards. Various other quality management studies may be combined with the prevalence study and data specific to those may also be included in the chart review.
   b. **Restraint Use Prevalence**: Each patient’s chart is also reviewed for documentation relative to the clinical justification for use of a restraint or sitter. Additional information such as other interventions, patient’s condition and length of time in restraints may be useful to collect for additional analysis.

6) **Data Collection Tools**
   a. **Pressure Ulcer Prevalence**: Data should be recorded (whether or not pressure ulcers were noted) for each patient whose skin is observed during the prevalence study. These data include both the patient observation findings and the chart review findings. If different team members are doing the observing and chart review, it is helpful to have the data collection tool divided into distinct portions (each with a patient identifier) and two systems for tracking which patients have been completed (observers and chart reviewers proceed at different paces).
   b. **Restraint Use Prevalence**: Data should be recorded (whether or not restraints were noted) for each patient. These data include both the observation findings
and chart review findings. If different team members are doing the observing and chart review, it is helpful to have the data collection tool divided into distinct portions (each with a patient identifier) and two systems for tracking which patients have been completed (observers and chart reviewers proceed at different paces).

7) Data Submission
   a. Pressure Ulcer Prevalence: After the chart review and patient observation have been completed, data collection tools should be checked for accuracy, and completeness. Completed study data should be submitted using a defined procedure for internal analysis or following procedures as defined for external data submission.
   b. Restraint Use Prevalence: After the chart review and patient observation have been completed, data collection tools should be checked for accuracy, and completeness. Completed study data should be submitted using a defined procedure developed for internal analysis or following procedures as defined for external data submission.

8) Important Notes
   a. Definition: A pressure ulcer is localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear and/or friction. (National Pressure Ulcer Advisory Panel, NPUAP, 2009)
   b. Hospital-acquired pressure ulcers are ulcers discovered or documented after the first 24 hours from the time of inpatient admission.
   c. Skin breakdown due to arterial occlusion, venous insufficiency, diabetes related neuropathy or incontinence dermatitis are not pressure ulcers and should not be reported in the prevalence study.
   d. Healing/Closed or Healed Pressure Ulcers: Pressure ulcers that are healing should not be reverse staged; rather they should be staged based on the maximum anatomic depth of tissue damage that was recorded in the patient’s record. Pressure ulcers that have closed/healed are not counted as pressure ulcers.
   e. Patient consent NOT required: A prevalence study is NOT a research study for which you must obtain patient consent. It is a Quality Improvement activity like many others in your facility. The examination is the same as the mandatory skin examinations your nurses perform on a regular basis. Thus all your nurses need to do is let patients know that you are examining all patients as part of your quality procedures. Of course, if they absolutely refuse, you do exclude them.
   f. Actively dying and medically unstable patients: The terms “actively dying” and “medically unstable” are terms used to characterize patients who cannot safely be turned for physiological reasons. Active dying is considered the last few days of life when blood flow to organs (e.g., brain, heart, kidneys) is decreasing, respiratory distress is increasing, and physiological instability is apparent, making turning unrealistic. “Medically unstable” people may have poor hemodynamic profiles or distress so severe that they cannot safely be turned for examination of
the back, sacrum, scapula, ischea, back of head, etc. The nature of the instability will vary e.g., some will require upright position to breathe, others cannot tolerate movement because of changes in hemodynamics (reduction) or intracranial pressure (increase).

g. A patient with a very long length of stay, who was surveyed previously, should be counted and surveyed again as long as they remain a patient in your facility.

h. Mucous membrane ulcers are tissue disruption on mucous membranes due to ischemic pressure from medical devices. Mucous membranes do not have skin on them so the staging system for pressure ulcers cannot be used to stage mucosal pressure ulcers. Do NOT report mucous membrane ulcers.

Source:
Collaborative Alliance for Nursing Outcomes (CALNOC)
# Appendix F
## Device Related Infection Measure Criteria
### Urinary Tract Infection Criteria

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Symptomatic Urinary Tract Infection (SUTI) Must meet at least 1 of the following criteria:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1a</strong></td>
<td>Patient had an indwelling urinary catheter in place at the time of specimen collection and at least 1 of the following signs or symptoms with no other recognized cause: fever (&gt;38°C), suprapubic tenderness, or costovertebral angle pain or tenderness and a positive urine culture of ≥ 105 colony-forming units (CFU)/ml with no more than 2 species of microorganisms. OR Patient had indwelling urinary catheter removed within the 48 hours prior to specimen collection and at least 1 of the following signs or symptoms with no other recognized cause: fever (&gt;38°C), urgency, frequency, dysuria, suprapubic tenderness, or costovertebral angle pain or tenderness and a positive urine culture of ≥ 105 colony-forming units (CFU)/ml with no more than 2 species of microorganisms.</td>
</tr>
<tr>
<td><strong>1b</strong></td>
<td>Patient did not have an indwelling urinary catheter in place at the time of specimen collection nor within 48 hours prior to specimen collection and has at least 1 of the following signs or symptoms with no other recognized cause: fever (&gt;38°C) in a patient that is ≤ 65 years of age, urgency, frequency, dysuria, suprapubic tenderness, or costovertebral angle pain or tenderness and a positive urine culture of ≥ 105 CFU/ml with no more than 2 species of microorganisms.</td>
</tr>
</tbody>
</table>
| **2a**    | Patient had an indwelling urinary catheter in place at the time of specimen collection and at least 1 of the following signs or symptoms with no other recognized cause: fever (>38°C), suprapubic tenderness, or costovertebral angle pain or tendeness and a positive urinalysis demonstrated by at least 1 of the following findings: a. positive dipstick for leukocyte esterase and/or nitrite b. pyuria (urine specimen with ≥ 10 white blood cells [WBC]/mm³ or ≥ 3
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
|    | WBC/high power field of unspun urine)  
c. microorganisms seen on Gram stain of unspun urine  
and a positive urine culture of ≥ 103 and <105 CFU/ml with no more than 2 species of microorganisms.  
-------------------------------------------------  
OR-------------------------------------------------  
Patent had indwelling urinary catheter removed within the 48 hours prior to specimen collection  
and at least 1 of the following signs or symptoms with no other recognized cause: fever (>38°C), urgency, frequency, dysuria, suprapubic tenderness, or costovertebral angle pain or tenderness  
and a positive urinalysis demonstrated by at least 1 of the following findings:  
a. positive dipstick for leukocyte esterase and/or nitrite  
b. pyuria (urine specimen with ≥ 10 white blood cells [WBC]/mm$^3$ or ≥ 3 WBC/high power field of unspun urine)  
c. microorganisms seen on Gram stain of unspun urine and a positive urine culture of ≥ 103 and <105 CFU/ml with no more than 2 species of microorganisms.  
|   | 2b Patient did not have an indwelling urinary catheter in place at the time of specimen collection nor within 48 hours prior to specimen collection  
and has at least 1 of the following signs or symptoms with no other recognized cause: fever (>38°C) in a patient that is ≤ 65 years of age, urgency, frequency, dysuria, suprapubic tenderness, or costovertebral angle pain or tenderness  
and a positive urinalysis demonstrated by at least 1 of the following findings:  
a. positive dipstick for leukocyte esterase and/or nitrite  
b. pyuria (urine specimen with ≥ 10 WBC/mm$^3$ or ≥ 3 WBC/high power field of unspun urine)  
c. microorganisms seen on Gram stain of unspun urine  
and a positive urine culture of ≥ 103 and <105 CFU/ml with no more than 2 species of microorganisms.  
|   | 3 Patient ≤ 1 year of age with or without an indwelling urinary catheter has at least 1 of the following signs or symptoms with no other recognized cause: fever (>38°C core), hypothermia (<36°C core), apnea, bradycardia, dysuria, lethargy, or vomiting  
and a positive urine culture of ≥ 105 CFU/ml with no more than 2 species of microorganisms.  

NSC Implementation Guide, 2009  
Appendix F-2
<table>
<thead>
<tr>
<th><strong>Criterion</strong></th>
<th><strong>Asymptomatic Bacteremic Urinary Tract Infection (ABUTI)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient ≤ 1 year of age with or without an indwelling urinary catheter has at least 1 of the following signs or symptoms with no other recognized cause: fever (&gt;38°C core), hypothermia (&lt;36°C core), apnea, bradycardia, dysuria, lethargy, or vomiting <strong>and</strong> a positive urinalysis demonstrated by at least one of the following findings: a. positive dipstick for leukocyte esterase and/or nitrite b. pyuria (urine specimen with ≥ 10 WBC/mm³ or ≥ 3 WBC/high power field of unspun urine) c. microorganisms seen on Gram’s stain of unspun urine <strong>and</strong> a positive urine culture of between ≥ 10³ and &lt;10⁵ CFU/ml with no more than two species of microorganisms.</td>
<td><strong>Comment</strong></td>
</tr>
</tbody>
</table>
| *Fever is not diagnostic for UTI in the elderly (>65 years of age) and therefore fever in this age group does not disqualify from meeting the criteria of an ABUTI.* **Uropathogen microorganisms are: Gram-negative bacilli, *Staphylococcus* spp., yeasts, beta-hemolytic *Streptococcus* spp., *Enterococcus* spp., *G. vaginalis*, *Aerococcus urinae*, and *Corynebacterium* (urease positive).** | • Urinary catheter tips should not be cultured and are not acceptable for the diagnosis of a urinary tract infection. • Urine cultures must be obtained using appropriate technique, such as clean catch collection or catheterization. Specimens from indwelling catheters should be aspirated through the disinfected sampling ports. • In infants, urine cultures should be obtained by bladder catheterization or suprapubic aspiration; positive urine cultures from bag specimens are unreliable and should be confirmed by specimens aseptically obtained by catheterization or suprapubic aspiration. • Urine specimens for culture should be processed as soon as possible, preferably within 1 to 2 hours. If urine specimens cannot be processed within 30 minutes of collection, they should be refrigerated, or inoculated into primary isolation medium before transport, or transported in an appropriate...
urine preservative. Refrigerated specimens should be cultured within 24 hours.
• Urine specimen labels should indicate whether or not the patient is symptomatic.
• Report secondary bloodstream infection = “Yes” for all cases of Asymptomatic Bacteremic Urinary Tract Infection (ABUTI).
• Report *Corynebacterium* (urease positive) as either *Corynebacterium species unspecified* (COS) or, as *C. urealyticum* (CORUR) if so speciated.

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Other Urinary Tract Infection (OUTI) (kidney, ureter, bladder, urethra, or tissue surrounding the retroperineal or perinephric space)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Other infections of the urinary tract must meet at least 1 of the following criteria:</td>
</tr>
<tr>
<td></td>
<td>Patient has microorganisms isolated from culture of fluid (other than urine) or tissue from affected site.</td>
</tr>
<tr>
<td>2</td>
<td>Patient has an abscess or other evidence of infection seen on direct examination, during a surgical operation, or during a histopathologic examination.</td>
</tr>
<tr>
<td>3</td>
<td>Patient has at least 2 of the following signs or symptoms with no other recognized cause: fever (&gt;38°C), localized pain, or localized tenderness at the involved site <strong>and</strong></td>
</tr>
<tr>
<td></td>
<td>at least 1 of the following:</td>
</tr>
<tr>
<td></td>
<td>a. purulent drainage from affected site</td>
</tr>
<tr>
<td></td>
<td>b. microorganisms cultured from blood that are compatible with suspected site of infection</td>
</tr>
<tr>
<td></td>
<td>c. radiographic evidence of infection (e.g., abnormal ultrasound, CT scan, magnetic resonance imaging [MRI], or radiolabel scan [gallium, technetium]).</td>
</tr>
<tr>
<td>4</td>
<td>Patient &lt; 1 year of age has at least 1 of the following signs or symptoms with no other recognized cause: fever (&gt;38°C core), hypothermia (&lt;36°C core), apnea, bradycardia, lethargy, or vomiting <strong>and</strong></td>
</tr>
<tr>
<td></td>
<td>at least 1 of the following:</td>
</tr>
<tr>
<td></td>
<td>a. purulent drainage from affected site</td>
</tr>
<tr>
<td></td>
<td>b. microorganisms cultured from blood that are compatible with suspected site of infection</td>
</tr>
<tr>
<td></td>
<td>c. radiographic evidence of infection, (e.g., abnormal ultrasound, CT scan, magnetic resonance imaging [MRI], or radiolabel scan [gallium, technetium]).</td>
</tr>
</tbody>
</table>

**Comment** • Report infections following circumcision in newborns as SST-CIRC.

**Source:**
Bloodstream Infection Criteria

**Laboratory-confirmed bloodstream infection (LCBI):** Must meet one of the following criteria:

1. **Criterion 1:**
   Patient has a recognized pathogen cultured from one or more blood cultures and organism cultured from blood is not related to an infection at another site. (See Notes 1 and 2 below.)

2. **Criterion 2:**
   Patient has at least one of the following signs or symptoms: fever (>38°C), chills, or hypotension and signs and symptoms and positive laboratory results are not related to an infection at another site and common skin contaminant (i.e., diphtheroids [*Corynebacterium* spp.], *Bacillus* [not *B. anthracis*] spp., *Propionibacterium* spp., coagulase-negative staphylococci [including *S. epidermidis*], viridans group streptococci, *Aerococcus* spp., *Micrococcus* spp.) is cultured from two or more blood cultures drawn on separate occasions.

3. **Criterion 3:**
   Patient < 1 year of age has at least one of the following signs or symptoms: fever (>38°C core) hypothermia (<36°C core), apnea, or bradycardia and signs and symptoms and positive laboratory results are not related to an infection at another site and common skin contaminant (i.e., diphtheroids [*Corynebacterium* spp.], *Bacillus* [not *B. anthracis*] spp., *Propionibacterium* spp., coagulase-negative staphylococci [including *S. epidermidis*], viridans group streptococci, *Aerococcus* spp., *Micrococcus* spp.) is cultured from two or more blood cultures drawn on separate occasions. (See Notes 3, 4 and 5 below.)

**NOTES:**
1. In criterion 1, the phrase “one or more blood cultures” means that at least one bottle from a blood draw is reported by the laboratory as having grown organisms (i.e., is a positive blood culture).
2. In criterion 1, the term “recognized pathogen” does not include organisms considered common skin contaminants (see criteria 2 and 3 for a list of common skin...
contaminants). A few of the recognized pathogens are *S. aureus*, *Enterococcus* spp., *E. coli*, *Pseudomonas* spp., *Klebsiella* spp., *Candida* spp., etc.

3. In criteria 2 and 3, the phrase “two or more blood cultures drawn on separate occasions” means 1) that blood from at least two blood draws were collected within two days of each other (e.g., blood draws on Monday and Tuesday or Monday and Wednesday would be acceptable for blood cultures drawn on separate occasions, but blood draws on Monday and Thursday would be too far apart in time to meet this criterion), and 2) that at least one bottle from each blood draw is reported by the laboratory as having grown the same common skin contaminant organism (i.e., is a positive blood culture). (See Note 4 for determining sameness of organisms.)

   a. For example, an adult patient has blood drawn at 8 a.m. and again at 8:15 a.m. of the same day. Blood from each blood draw is inoculated into two bottles and incubated (four bottles total). If one bottle from each blood draw set is positive for coagulase-negative staphylococci, this part of the criterion is met.

   b. For example, a neonate has blood drawn for culture on Tuesday and again on Saturday and both grow the same common skin contaminant. Because the time between these blood cultures exceeds the two-day period for blood draws stipulated in criteria 2 and 3, this part of the criteria is not met.

   c. A blood culture may consist of a single bottle for a pediatric blood draw due to volume constraints. Therefore, to meet this part of the criterion, each bottle from two or more draws would have to be culture-positive for the same skin contaminant.

4. There are several issues to consider when determining sameness of organisms.

   a. If the common skin contaminant is identified to the species level from one culture, and a companion culture is identified with only a descriptive name (i.e., to the genus level), then it is assumed that the organisms are the same. The speciated organism should be reported as the infecting pathogen (see examples below).

---

**Table 1. Examples of how to report speciated and unspeciated common skin contaminant organisms**

<table>
<thead>
<tr>
<th>Culture Report</th>
<th>Companion Culture Report</th>
<th>Report as…</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>S. epidermidis</em></td>
<td>Coagulase-negative staphylococci</td>
<td><em>S. epidermidis</em></td>
</tr>
<tr>
<td><em>Bacillus</em> spp. (not <em>anthracis</em>)</td>
<td><em>B. cereus</em></td>
<td><em>B. cereus</em></td>
</tr>
<tr>
<td><em>S. salivarius</em></td>
<td><em>Strep viridans</em></td>
<td><em>S. salivarius</em></td>
</tr>
</tbody>
</table>

**Table 2. Examples of how to interpret the sameness of two skin contaminant isolates by comparing antimicrobial susceptibilities**

<table>
<thead>
<tr>
<th>Culture Report</th>
<th>Isolate A</th>
<th>Isolate B</th>
<th>Interpret as…</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>S. epidermidis</em></td>
<td>All drugs S</td>
<td>All drugs S</td>
<td>Same</td>
</tr>
<tr>
<td><em>S. epidermidis</em></td>
<td>OX R</td>
<td>OX S</td>
<td>Different</td>
</tr>
</tbody>
</table>
### Corynebacterium spp.

<table>
<thead>
<tr>
<th></th>
<th>GENT R</th>
<th>GENT S</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEN G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIPRO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEN G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIPRO</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Different

### Strep viridans

<table>
<thead>
<tr>
<th></th>
<th>All drugs</th>
<th>All drugs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S</td>
<td>S except</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ERYTH (R)</td>
</tr>
</tbody>
</table>

### b. If common skin contaminant organisms from the cultures are speciated but no antibiograms are done or they are done for only one of the isolates, it is assumed that the organisms are the same.

### c. If the common skin contaminants from the cultures have antibiograms that are different for two or more antimicrobial agents, it is assumed that the organisms are not the same (see table below).

### d. For the purpose of NHSN antibiogram reporting, the category interpretation of intermediate (I) should not be used to distinguish whether two organisms are different.

### 5. LCBI criteria 1 and 2 may be used for patients of any age, including patients < 1 year of age.

### 6. Specimen Collection Considerations:

Ideally, blood specimens for culture should be obtained from two to four blood draws from separate venipuncture sites (e.g., right and left antecubital veins), not through a vascular catheter. These blood draws should be performed simultaneously or over a short period of time (i.e., within a few hours). If your facility does not currently obtain specimens using this technique, you may still report BSIs using the criteria and notes above, but you should work with appropriate personnel to facilitate better specimen collection practices for blood cultures.

### REPORTING INSTRUCTIONS:

- Purulent phlebitis confirmed with a positive semiquantitative culture of a catheter tip, but with either negative or no blood culture is considered a CVS-VASC, not a BSI.
- Report organisms cultured from blood as BSI – LCBI when no other site of infection is evident.
- Occasionally a patient with both peripheral and central IV lines develops a primary bloodstream infection (LCBI) that can clearly be attributed to the peripheral line (e.g., pus at the insertion site and matching pathogen from pus and blood). In this situation, enter “Central Line = No” in the NHSN application. You should, however, count the patient’s central line days.
- March, 2009 4-6 Device-associated Module CLABSI
**Clinical sepsis (CSEP):** Must meet the following criterion:

Patient < 1 year of age has at least one of the following clinical signs or symptoms with no other recognized cause: fever (>38°C core), hypothermia (<36°C, core), apnea, or bradycardia
and
blood culture not done or no organisms detected in blood
and
no apparent infection at another site
and
physician institutes treatment for sepsis.

**REPORTING INSTRUCTIONS:**
Report culture-positive infections of the bloodstream as BSI – LCBI.

**Source:**
Criteria for Clinically Defined Pneumonia (PNU1)*

Table 1. Abbreviations used in PNEU laboratory criteria

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAL</td>
<td>bronchoalveolar lavage</td>
</tr>
<tr>
<td>EIA</td>
<td>enzyme immunoassay</td>
</tr>
<tr>
<td>FAMA</td>
<td>fluorescent-antibody staining of membrane antigen</td>
</tr>
<tr>
<td>IFA</td>
<td>immunofluorescent antibody</td>
</tr>
<tr>
<td>LRT</td>
<td>lower respiratory tract</td>
</tr>
<tr>
<td>PCR</td>
<td>polymerase chain reaction</td>
</tr>
<tr>
<td>PMN</td>
<td>polymorphonuclear leukocyte</td>
</tr>
<tr>
<td>RIA</td>
<td>radioimmunoassay</td>
</tr>
</tbody>
</table>

REPORTING INSTRUCTIONS:
- There is a hierarchy of specific categories within the major site pneumonia. Even if a patient meets criteria for more than one specific site, report only one:
  - If a patient meets criteria for both PNU1 and PNU2, report PNU2
  - If a patient meets criteria for both PNU2 and PNU3, report PNU3
  - If a patient meets criteria for both PNU1 and PNU3, report PNU3
- Report concurrent lower respiratory tract infection (e.g., abscess or empyema) and pneumonia with the same organism(s) as pneumonia.
- Lung abscess or empyema without pneumonia are classified as LUNG.
- Bronchitis, tracheitis, tracheobronchitis, or bronchiolitis without pneumonia are classified as BRON.
Table 2. Specific Site Algorithms for Clinically Defined Pneumonia (PNU1)

<table>
<thead>
<tr>
<th>Radiology</th>
<th>Signs/Symptoms/Laboratory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two or more serial chest radiographs with at least one of the following 1,2: New or progressive and persistent infiltrate</td>
<td>FOR ANY PATIENT, at least one of the following: -Fever (&gt;38°C or &gt;100.4°F) with no other recognized cause -Leukopenia (&lt;4000 WBC/mm$^3$) or leukocytosis (&gt;12,000 WBC/mm$^3$) -For adults &gt;70 years old, altered mental status with no other recognized cause AND at least two of the following: -New onset of purulent sputum$^3$, or change in character of sputum$^4$, or increased respiratory secretions, or increased suctioning requirements -New onset or worsening cough, or dyspnea, or tachypnea$^5$ -Rales$^6$ or bronchial breath sounds -Worsening gas exchange (e.g. O2 desaturations (e.g., PaO$_2$/FiO$_2$ &lt; 240)$^7$, increased oxygen requirements, or increased ventilator demand)</td>
</tr>
<tr>
<td>Consolidation</td>
<td>ALTERNATE CRITERIA, for infants ≤ 1 year old: Worsening gas exchange (e.g., O2 desaturations, increased oxygen requirements, or increased ventilator demand) AND at least three of the following: -Temperature instability with no other recognized cause -Leukopenia (&lt;4000 WBC/mm$^3$) or leukocytosis (&gt;15,000 WBC/mm$^3$) and left shift (&gt;10% band forms) -New onset of purulent sputum$^3$, or change in character of sputum$^4$, or increased respiratory secretions or increased suctioning requirements -Apnea, tachypnea$^5$, nasal flaring with retraction of chest wall or grunting -Wheezeing, rales$^6$, or rhonchi -Cough -Bradycardia (&lt;100 beats/min) or tachycardia (&gt;170 beats/min)</td>
</tr>
<tr>
<td>Cavitation</td>
<td>ALTERNATE CRITERIA, for children &gt;1 year old or ≤ 12 years old, at least three of the following: -Fever (&gt;38.4°C or &gt;101.1°F) or hypothermia (&lt;36.5°C or &lt;97.7°F) with no other recognized cause -Leukopenia (&lt;4000 WBC/mm$^3$) or leukocytosis (≥ 15,000 WBC/mm$^3$) -New onset of purulent sputum$^3$, or change in character of sputum$^4$, or increased respiratory secretions, or increased suctioning requirements -New onset or worsening cough, or dyspnea, apnea, or tachypnea$^5$. -Rales$^6$ or bronchial breath sounds. -Worsening gas exchange (e.g. O2 desaturations, increased oxygen requirements, or increased ventilator demand)</td>
</tr>
<tr>
<td>Pneumatoceles, in infants ≤ 1 year old</td>
<td>NOTE: In patients without underlying pulmonary or cardiac disease (e.g. respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), one definitive chest radiograph is acceptable.$^1$</td>
</tr>
</tbody>
</table>
### Table 3. Specific Site Algorithms for Pneumonia with Common Bacterial or Filamentous Fungal Pathogens and Specific Laboratory Findings (PNU2)

<table>
<thead>
<tr>
<th>Radiology</th>
<th>Signs/Symptoms</th>
<th>Laboratory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two or more serial chest radiographs with at least one of the following(^1): New or progressive and persistent infiltrate</td>
<td>At least one of the following: -Fever (&gt;38°C or &gt;100.4°F) with no other recognized cause -Leukopenia (&lt;4000 WBC/mm(^3)) or -leukocytosis (&gt;12,000 WBC/mm(^3))</td>
<td>At least one of the following: -Positive growth in blood culture(^3) not related to another source of infection</td>
</tr>
<tr>
<td>Consolidation</td>
<td></td>
<td>-Positive growth in culture of pleural fluid</td>
</tr>
<tr>
<td>Pneumatoceles, in infants ≤ 1 year old</td>
<td>-Positive quantitative culture(^9) from minimally contaminated LRT specimen (e.g., BAL or protected specimen brushing)</td>
<td>-Positive quantitative culture(^9) from minimally contaminated LRT specimen (e.g., BAL or protected specimen brushing)</td>
</tr>
<tr>
<td>NOTE: In patients without underlying pulmonary or cardiac disease (e.g. respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), one definitive chest radiograph is acceptable.(^1)</td>
<td>-5% BAL-obtained cells contain intracellular bacteria on direct microscopic exam (e.g., Gram stain)</td>
<td>-5% BAL-obtained cells contain intracellular bacteria on direct microscopic exam (e.g., Gram stain)</td>
</tr>
<tr>
<td></td>
<td>AND at least one of the following: -New onset of purulent sputum(^3), or -change in character of sputum(^4), or -increased respiratory secretions, or -increased suctioning requirements</td>
<td>-Histopathologic exam shows at least one of the following evidences of pneumonia: -Abscess formation or foci of consolidation with intense PMN accumulation in bronchioles and alveoli -Positive quantitative culture(^9) of lung parenchyma Evidence of lung parenchyma invasion by fungal hyphae or pseudohyphae</td>
</tr>
<tr>
<td></td>
<td>-New onset or worsening cough, or dyspnea or tachypnea(^5) -Rales(^6) or bronchial breath sounds -Worsening gas exchange (e.g. O(_2) desaturations [e.g., PaO(_2)/FiO(_2) &lt; 240](^7), increased oxygen requirements, or increased ventilator demand)</td>
<td></td>
</tr>
</tbody>
</table>
### Table 4. Specific Site Algorithms for Viral, Legionella, and other Bacterial Pneumonias with Definitive Laboratory Findings (PNU2)

<table>
<thead>
<tr>
<th>Radiology</th>
<th>Signs/Symptoms</th>
<th>Laboratory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two or more serial chest radiographs with at least one of the following:</td>
<td>At least one of the following:</td>
<td>At least one of the following:&lt;sup&gt;10, 12&lt;/sup&gt;:</td>
</tr>
<tr>
<td>New or progressive and persistent infiltrate</td>
<td>- Fever (&gt;38°C or &gt;100.4°F) with no other recognized cause</td>
<td>- Positive culture of virus or <em>Chlamydia</em> from respiratory secretions</td>
</tr>
<tr>
<td>Consolidation</td>
<td>- Leukopenia (&lt;4000 WBC/mm&lt;sup&gt;3&lt;/sup&gt;) or leukocytosis (&gt;12,000 WBC/mm&lt;sup&gt;3&lt;/sup&gt;)</td>
<td>- Positive detection of viral antigen or antibody from respiratory secretions (e.g., EIA, FAMA, shell vial assay, PCR)</td>
</tr>
<tr>
<td>Cavitation</td>
<td>- For adults &gt;70 years old, altered mental status with no other recognized cause</td>
<td>- Fourfold rise in paired sera (IgG) for pathogen (e.g., influenza viruses, <em>Chlamydia</em>)</td>
</tr>
<tr>
<td>Pneumatoceles, in infants ≤ 1 year old</td>
<td><strong>AND</strong></td>
<td>- Positive PCR for <em>Chlamydia</em> or <em>Mycoplasma</em></td>
</tr>
<tr>
<td>NOTE: In patients <strong>without</strong> underlying pulmonary or cardiac disease (e.g. respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), one definitive chest radiograph is acceptable.</td>
<td>- New onset of purulent sputum&lt;sup&gt;3&lt;/sup&gt;, or change in character of sputum&lt;sup&gt;4&lt;/sup&gt;, or increased respiratory secretions, or increased suctioning requirements</td>
<td>- Positive micro-IF test for <em>Chlamydia</em></td>
</tr>
<tr>
<td></td>
<td>- New onset or worsening cough or dyspnea, or tachypnea&lt;sup&gt;5&lt;/sup&gt;</td>
<td>- Positive culture or visualization by micro-IF of <em>Legionella</em> spp, from respiratory secretions or tissue.</td>
</tr>
<tr>
<td></td>
<td>- Rales&lt;sup&gt;6&lt;/sup&gt; or bronchial breath sounds</td>
<td>- Detection of <em>Legionella pneumophila</em> serogroup 1 antigens in urine by RIA or EIA</td>
</tr>
<tr>
<td></td>
<td>- Worsening gas exchange (e.g. O2 desaturations [e.g., PaO2/FiO2 &lt; 240]&lt;sup&gt;7&lt;/sup&gt;, increased oxygen requirements, or increased ventilator demand)</td>
<td>- Fourfold rise in <em>L. pneumophila</em> serogroup 1 antibody titer to ≥ 1:128 in paired acute and convalescent sera by indirect IFA.</td>
</tr>
</tbody>
</table>
### Table 5. Specific Site Algorithm for Pneumonia in Immunocompromised Patients (PNU3)

<table>
<thead>
<tr>
<th>Radiology</th>
<th>Signs/Symptoms</th>
<th>Laboratory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two or more serial chest radiographs with at least one of the following: New or progressive and persistent infiltrate Consolidation Cavitation Pneumatoceles, in infants ≤ 1 year old</td>
<td>Patient who is immunocompromised(^{13}) has at least one of the following: - Fever (&gt;38°C or &gt;100.4°F) with no other recognized cause - For adults &gt;70 years old, altered mental status with no other recognized cause - New onset of purulent sputum(^{3}), or change in character of sputum(^{4}), or increased respiratory secretions, or increased suctioning requirements - New onset or worsening cough, or dyspnea, or tachypnea(^{5}) - Rales(^{6}) or bronchial breath sounds - Worsening gas exchange (e.g. O(_2) desaturations [e.g., PaO(_2)/FiO(_2) &lt; 240](^{7}), increased oxygen requirements, or increased ventilator demand) - Hemoptysis - Pleuritic chest pain</td>
<td>At least one of the following: - Matching positive blood and sputum cultures with <em>Candida</em> spp.(^{14,15}) - Evidence of fungi or <em>Pneumocystis carinii</em> from minimally contaminated LRT specimen (e.g., BAL or protected specimen brushing) from one of the following: - Direct microscopic exam - Positive culture of fungi</td>
</tr>
</tbody>
</table>

NOTE: In patients without underlying pulmonary or cardiac disease (e.g. respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), one definitive chest radiograph is acceptable.\(^{1}\)

**LABORATORY CRITERIA DEFINED UNDER PNU2**
Footnotes to Algorithms:

1. Occasionally, in nonventilated patients, the diagnosis of healthcare-associated pneumonia may be quite clear on the basis of symptoms, signs, and a single definitive chest radiograph. However, in patients with pulmonary or cardiac disease (for example, interstitial lung disease or congestive heart failure), the diagnosis of pneumonia may be particularly difficult. Other non-infectious conditions (for example, pulmonary edema from decompensated congestive heart failure) may simulate the presentation of pneumonia. In these more difficult cases, serial chest radiographs must be examined to help separate infectious from non-infectious pulmonary processes. To help confirm difficult cases, it may be useful to review radiographs on the day of diagnosis, 3 days prior to the diagnosis and on days 2 and 7 after the diagnosis. Pneumonia may have rapid onset and progression, but does not resolve quickly. Radiographic changes of pneumonia persist for several weeks. As a result, rapid radiographic resolution suggests that the patient does not have pneumonia, but rather a non-infectious process such as atelectasis or congestive heart failure.

2. Note that there are many ways of describing the radiographic appearance of pneumonia. Examples include, but are not limited to, “air-space disease”, “focal opacification”, “patchy areas of increased density”. Although perhaps not specifically delineated as pneumonia by the radiologist, in the appropriate clinical setting these alternative descriptive wordings should be seriously considered as potentially positive findings.

3. Purulent sputum is defined as secretions from the lungs, bronchi, or trachea that contain >25 neutrophils and <10 squamous epithelial cells per low power field (x100). If your laboratory reports these data qualitatively (e.g., “many WBCs” or “few squames”), be sure their descriptors match this definition of purulent sputum. This laboratory confirmation is required since written clinical descriptions of purulence are highly variable.

4. A single notation of either purulent sputum or change in character of the sputum, is not meaningful; repeated notations over a 24 hour period would be more indicative of the onset of an infectious process. Change in character of sputum refers to the color, consistency, odor and quantity.

5. In adults, tachypnea is defined as respiration rate >25 breaths per minute. Tachypnea is defined as >75 breaths per minute in premature infants born at <37 weeks gestation and until the 40th week; >60 breaths per minute in patients <2 months old; >50 breaths per minute in patients 2-12 months old; and >30 breaths per minute in children >1 year old.

6. Rales may be described as “crackles”.

7. This measure of arterial oxygenation is defined as the ratio of the arterial tension (PaO2) to the inspiratory fraction of oxygen (FiO2).

8. Care must be taken to determine the etiology of pneumonia in a patient with positive blood cultures and radiographic evidence of pneumonia, especially if the patient has invasive devices in place such as intravascular lines or an indwelling urinary catheter. In general, in an immunocompetent patient, blood cultures positive for coagulase negative staphylococci, common skin contaminants, and yeasts will not be the etiologic agent of the pneumonia.
9. Refer to Threshold values for cultured specimens (Table 6). An endotracheal aspirate is not a minimally contaminated specimen. Therefore, an endotracheal aspirate does not meet the laboratory criteria.

10. Once laboratory-confirmed cases of pneumonia due to respiratory syncytial virus (RSV), adenovirus, or influenza virus have been identified in a hospital, clinician’s presumptive diagnosis of these pathogens in subsequent cases with similar clinical signs and symptoms is an acceptable criterion for presence of healthcare-associated infection.

11. Scant or watery sputum is commonly seen in adults with pneumonia due to viruses and Mycoplasma although sometimes the sputum may be mucopurulent. In infants, pneumonia due to RSV or influenza yields copious sputum. Patients, except premature infants, with viral or mycoplasmal pneumonia may exhibit few signs or symptoms, even when significant infiltrates are present on radiographic exam.

12. Few bacteria may be seen on stains of respiratory secretions from patients with pneumonia due to Legionella spp, mycoplasma, or viruses.

13. Immunocompromised patients include those with neutropenia (absolute neutrophil count <500/mm$^3$), leukemia, lymphoma, HIV with CD4 count <200, or splenectomy; those who are early post-transplant, are on cytotoxic chemotherapy, or are on high dose steroids (e.g., >40mg of prednisone or its equivalent (>160mg hydrocortisone, >32mg methylprednisolone, >6mg dexamethasone, >200mg cortisone) daily for >2 weeks).

14. Blood and sputum specimens must be collected within 48 hours of each other.

15. Semiquantitative or nonquantitative cultures of sputum obtained by deep cough, induction, aspiration, or lavage are acceptable. If quantitative culture results are available, refer to algorithms that include such specific laboratory findings.

Source:
Appendix G

The Practice Environment Scale of the Nursing Work Index (PES-NWI)

Subscales and Component Items

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Component items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean score on a composite of all subscale scores</td>
<td>Subscale scores</td>
</tr>
<tr>
<td>Nurse Participation in Hospital Affairs</td>
<td>5, 6, 11, 15, 17, 21, 23, 27, 28</td>
</tr>
<tr>
<td>Nursing Foundations for Quality of Care</td>
<td>4, 14, 18, 19, 22, 25, 26, 29, 30, 31</td>
</tr>
<tr>
<td>Nurse Manager Ability, Leadership, and Support of Nurses</td>
<td>3, 7, 10, 13, 20</td>
</tr>
<tr>
<td>Staffing and Resource Adequacy</td>
<td>1, 8, 9, 12</td>
</tr>
<tr>
<td>Collegial Nurse-Physician Relations</td>
<td>2, 16, 24</td>
</tr>
<tr>
<td>Three category variable indicating favorable, mixed, or unfavorable practice environments</td>
<td>Subscale scores</td>
</tr>
</tbody>
</table>

Scoring Directions

For hospital-level scores, calculate the item-level mean first from all responses. Then proceed with the standard computation for subscale scores. This approach permits all nurse responses, including responses of nurses who did not answer all items, to be included in the hospital score.

For nurse-specific subscale scores, calculate the mean of the items in the subscale. The mean permits easy comparison across subscales.

Calculate an overall PES-NWI “composite” score as the mean of the five subscale scores. This approach gives equal weight to the subscales, rather than to the items.

Three category variable indicating favorable, mixed, or unfavorable practice environments:
Favorable = four or more subscale means exceed 2.5;
Mixed = two or three subscale means exceed 2.5;
Unfavorable = zero or one subscales exceed 2.5.

**The Practice Environment Scale of the Nursing Work Index**

For each item, please indicate the extent to which you agree that the item is PRESENT IN YOUR CURRENT JOB. Indicate your degree of agreement by circling the appropriate number.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Adequate support services allow me to spend time with my patients.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Physician and nurses have good working relationships.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>A supervisory staff that is supportive of the nurses.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Active staff development or continuing education programs for nurses.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Career development/clinical ladder opportunity.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Opportunity for staff nurses to participate in policy decisions.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Supervisors use mistakes as learning opportunities, not criticism.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Enough time and opportunity to discuss patient care problems with other nurses.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Enough registered nurses to provide quality patient care.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>A nurse manager who is a good manager and leader.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>A chief nursing office who is highly visible and accessible to staff.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>Enough staff to get the work done.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>Praise and recognition for a job well done.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Statement</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>---</td>
<td>------------------------------------------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>14</td>
<td>High standards of nursing care are expected by the administration.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>A chief nurse officer equal in power and authority to other top-level hospital executives.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>A lot of team work between nurses and physicians.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>Opportunities for advancement.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>A clear philosophy of nursing that pervades the patient care environment.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>19</td>
<td>Working with nurses who are clinically competent.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>A nurse manager who backs up the nursing staff in decision making, even if the conflict is with a physician.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>21</td>
<td>Administration that listens and responds to employee concerns.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>22</td>
<td>An active quality assurance program.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>23</td>
<td>Staff nurses are involved in the internal governance of the hospital (e.g., practice and policy committees).</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>24</td>
<td>Collaboration (joint practice) between nurses and physicians.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>25</td>
<td>A preceptor program for newly hired RNs.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>26</td>
<td>Nursing care is based on a nursing, rather than a medical, model.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>27</td>
<td>Staff nurses have the opportunity to serve on hospital and nursing committees.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>28</td>
<td>Nursing administrators consult with staff</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
on daily problems and procedures.

29  Written, up-to-date nursing care plans for all patients.

30  Patient care assignments that foster continuity of care, i.e., the same nurse cares for the patient from one day to the next.

31  Use of nursing diagnoses.