Nursing Sensitive Indicators for the Clinical Research Setting

Kathryn E. Hall, MS, ANP-BC, NE-BC
Nurse Director, Clinical Research Center
Massachusetts General Hospital
Boston, Massachusetts

Disclosures

- I have nothing to disclose 😊

Objectives

- 1. The learner will describe the purpose of Nursing Sensitive Indicators (NSI) as they relate to the role of the CRN, quality measures, and patient outcomes.
- 2. The learner will describe the process by which Nursing Sensitive Indicators are developed
Nurse Sensitive Indicators (NSI)

- In 1998 the National Database of Nursing Quality Indicators (NDNQI) was established by the American Nurses Association (ANA) in order to collect and build upon data attained from earlier sources and further develop nursing’s body of knowledge related to factors which influence the quality of nursing care.
- Currently, many of the NDNQI’s indicators are endorsed by the National Quality Forum (NQF) and are part of the NQF’s Nursing Sensitive Measure Set.

Magnet NSI Clinical Data Requirements

- Magnet hospitals must:
  - Collect data that reflects clinical nursing sensitive and quality indicators – at the practice/unit level.
  - Contribute to external databases that compare organizational performances against national benchmarks.
  - Include the mean or median of the national database used.
  - Benchmark at the highest level possible to have both meaning and value.
  - Monitor, analyze, disseminate and demonstrate actions to sustain or improve performance when necessary.

Quality Outcome Overview

- Magnet Hospitals are required to report:
  - The most recent 8 quarters of NSI data for clinical quality, as well as other metrics which include patient and staff satisfaction.
  - Hospitals must demonstrate outperformance in greater than 50% of the units, and you must out perform the benchmark 50% of the time.
Clinical NSIs – Inpatient Units Core Sets

- Falls with injury
- Hospital Acquired Pressure Ulcers (HAPU) Stage II or greater
- Central Line Associated Bloodstream Infections (CLABSI)
- Catheter Associated Urinary Tract Infections (CAUTI)
- Other NSI/Clinically relevant indicators are considered for units that may not be eligible for the above measures under 'Ambulatory/Specialty Areas' – including Research

NSI Data Requirements- for Specialty and Ambulatory Practice Areas

- Ambulatory:
  - Measure 2 NSIs relevant to practice
- Specialty: For clinical areas not eligible or not appropriate for the core NSIs
  - Select 2 clinically relevant indicators
  - Collect data at unit/practice level
  - Include appropriate benchmark or performance target with references

Performance Improvement Planning

- Active part of NSI work
- Key Actions:
  - Review unit’s performance by evaluating against:
    - External benchmark
    - Previous quarters performance (reflective of the unit’s usual performance)
    - Evaluate trends – 3 or more data points
Opportunities for Improvement

- Identify trends in the data
- Look for opportunities for improvement or practice change, if indicated
- Conduct a root cause analysis if metrics demonstrate a drop in performance.
- We can improve workflows and systems — will share example with one of MGH’s CRC Nurse Sensitive Indicators and how this changed our practice for the better

Nurse Sensitive Indicator Development – Our Journey

- Nurse sensitive indicators represent the structure, process and outcome of nursing care. Development of new indicators occurs when no Nursing-sensitive indicators (NSI) exist in a given practice area that embody nursing’s contribution to patient care.
- The development of new NSI begins with literature review and benchmarking. Once potential indicators are identified they are evaluated to ensure that they are nursing-sensitive, clinically relevant to that practice area, and are not burdensome to the unit for data collection. The next step is pilot testing.

Nursing Sensitive Indicators—Work to date at MGH

- Nationally recognized NSI include: Nurse Turnover, Patient Falls, and Pressure Ulcer rate.
- At this time no NSI have been identified for the work of Clinical Research Nurses.
- Massachusetts General Hospital (MGH) is a Magnet Hospital which is part of the Harvard Catalyst Clinical Translational Science Center.
- Four years ago we began the process of evaluation and establishment of NSI for our Clinical Research Center (CRC). This work was done in collaboration with the Patient Care Services Office of Quality and Safety.
Research Specific NSIs Pilot at MGH CRC

- Our assessment resulted in the pilot of two research specific NSIs:
  - "Verification of informed consent by CRC nurses"
  - "Correct tray set up per protocol"

- The Joint Commission (TJC) target for each of these metrics was set at 100%
- Data has been collected and maintained for each quarter on the CRC since July of 2010.

Verification of Informed Consent (IC) by Clinical Research Nurses

- Indicator Criteria: "A patient must be fully apprised of the purpose, duration, procedure, and alternative care or services. The patient can decline or refuse participation.

- The verification is more than simply confirming the consent is in place and the patient wants to continue. Answering questions, ensuring the patient fully understands the risks/benefits all are essential components of the verification.

- The RN verification of IC is documented in the medical record: "The patient verbalizes knowledge and understanding of the protocol involvement, participation, risks and benefits and agrees to continue in the study today. Consent is present in research chart and is signed."

- Measure is defined as:

- Numerator: The total number of patients with informed consent
- Denominator: The total number of patients enrolled in a clinical study
**NSI- Tray and Label Set up**

- **Indicator Criteria:** “The correct study tray per associated protocol is labeled for the right patient at the right time”
- Measure is reported as correct number of tray set ups:
  - **Numerator:** The total number of correct tray set-ups
  - **Denominator:** The total number of tray set ups
- Correct tray set-ups are defined as no reported pink slip protocol tray deviations related to the inappropriate labeling of sampling tubes.
  - Pink slips (internal safety reporting) are completed by RN, NP or support staff when any error is identified. These are maintained and reviewed with each event. They are tabulated quarterly.

**NSI- Verification of Tray and Label**

- **Tray and Label Deviation** is defined as:
  1. Any missing items (tubes, aliquots, labels, lab slips etc)
  2. Errors on labels or lab slips (missing or incorrect identifiers or date of visit, etc.)
  3. Any deviation on the tray from what is listed on the MD Order set (which is protocol driven)
Evaluation of Data Trends- Improvements in Practice

- Evaluation of changes in data trends - note 2012 dip in Tray and Label set up, indicating more errors were being picked up by CRC RNs and “pink slips” were completed to document.
- Root cause of errors revealed the various requests for label set up was resulting in errors at set up. These requests included: name, dob, medical record and study number, as well as patient ID/code number, all in various combinations.
- Determination was made to establish a standardized “identified study label” and a “de-identified study label” - in addition use of the de-identified label is reserved for studies deemed to be sensitive in nature. This request is to be put in writing to Nursing Director (ie: genetic testing).
- 10 study groups were asked to evaluate the labels before initiated. Feedback has been very positive, outside of the initial challenge with change for a few.

References and Reporting

- References:
  - Reference Verification of Informed Consent: Joint Commission Hospital & dintos
  - RL01.01.01 - Agreement or permission accompanied by full notice about the care, treatment or service that is the subject of the consent.
- Reporting:
  - Data is collected by NP designee, reviewed by Kathryn Hall, MS, ANP-BC, NE-BC the Nurse Director of the CRC and submitted to Patient Care Services, Office of Quality and Safety within 7 days of the end of quarter.

Next Steps

- Identify additional Nursing Sensitive Indicators that are relevant for our specialty area of Clinical Research.
- Falls occur in both inpatient and outpatient settings and in all specialty areas.
- MGH Office of Quality and Safety established a pilot to formally track all falls in outpatient and specialty areas - the CRC requested to be a part of this work.
- We average 1 fall per year- adult and/or pediatric.
Use of NSI to Advance the Practice of Clinical Research Nurses

- The use of NSI in the Clinical Research setting is a method by which we as nurse directors can demonstrate the quality, safety and value added of the care that our nursing staff provide participants, further advancing and defining the practice of Clinical Research Nurses.

Acknowledgments and Questions

- I would like to thank the MGH Patient Care Services Office of Quality and Safety for their support in our work regarding the development and ongoing monitoring of our NSI data.
- In particular, thank you to Colleen Snydeman, RN, PhDc, NE-BC, Deborah Frost, RN, DNP, Patricia Shanteler, RN, MSN, and Linda Akuamoah-Boateng.
- Questions?
- Thank you.