Implementing the National Patient Safety Goals (NPSGs) in Medical Imaging
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Educational Objectives

- Describe the role of the NPSGs in driving patient safety.
- Understand how the NPSGs are created.
- Describe how NPSGs are impacting medical imaging.
- Implement the NPSGs into daily practice.
Current Issues in Healthcare Today

- Healthcare is experiencing much attention these days.
- Most people are aware of double digit rising healthcare costs; exploding insurance and pharmaceutical costs, as well as the measures to cap these exorbitant costs.
Current Issues in Healthcare Today

- Staffing shortages and increasing volumes of uninsured patients add to this crisis.
- Add the reported fatal and near-fatal incidents that highlight the current valid safety concerns throughout the country and it is easy to see the components to this crisis we are all facing.
Current Issues in Healthcare Today

- National news organizations are covering these hot topics in healthcare almost on a daily basis, bringing much needed light and attention to this national healthcare crisis.

- The US Congress is also focusing on healthcare and adding to the initiatives to “fix” healthcare.
Experts agree that this crisis will get worse before it gets better – especially as the Baby Boomers age, retire and become patients beginning in the year 2010.

- 4,000 additional NMTs in 2014

There are only a few short years to look at and address how these issues will add additional constraints to an already taxed healthcare system.
Points To Consider...

- 3.7% of hospital admissions experience an adverse event.  

- 58% of adverse events are preventable.  

- Medical errors are the 8th leading cause of death.  

- Deaths due to preventable adverse events exceed deaths attributed to MVA, breast cancer, or AIDS.  
Additional Points…

- Medication Related Errors
  - 2% of admissions experience preventable adverse drug events
  - Increased hospital cost of $4,700 per admission
  - $2.8 million annually for a 700 bed hospital

And Yet More…

- Total national costs are estimated between $37.6 billion and $50 billion for adverse events every year.

- Medication errors accounted for 7,000 deaths in 1993.

- Medication errors account for 1 out of 130 outpatient deaths and 1 out of 854 inpatient deaths.
The current culture in healthcare is also being addressed on a national level.

The years of Managed Care in the early 1990’s brought a fiscal and business minded approach to healthcare.

Today, a new patient-centric focus is spreading throughout the country.
Patient-centric Healthcare

Several patient-centric models are emerging and each of these models address patient safety, the quality of patient care throughout the continuum, and the patient experience by integrating a host of programs focused on the patient.
The Joint Commission

- An independent, not-for-profit organization, TJC is the nation’s predominant standard’s setting and accrediting body in healthcare.
  - Evaluates and accredits nearly 19,000 healthcare organizations and programs in the US.
  - Accreditation is tied to federal funding
These Joint Commission patient safety standards are known as the National Patient Safety Goals (NPSGs).

They were originally introduced in 2002 for implementation in 2003.

- Each year new goals are released and some may be retired as those safety issues are resolved, to make room for new initiatives.
National Patient Safety Goals

These goals are derived from recommendations from the Sentinel Event Advisory Group, which reviews all sentinel and near-sentinel events that are voluntarily reported to TJC.

- Each one of these standards is developed to improve the overall care given to patients and give organizations the tools to address these safety concerns.
Patient Safety

Patient Safety is only the “tip of the iceberg” in providing superior patient care.
2008 National Patient Safety Goals
Keep in Mind

- These goals are written to give direction to entire healthcare systems in ways to prevent patient safety issues.
- The NPSGs are not open for debate, so non-compliance is not an option.
  - Citation = 45 days to fix verses 90 days to submit action plan
- These NPSGs are national standards and must be implemented to maintain TJC deemed status and pass accreditation.
Keep in Mind

- TJC accreditation is one way to demonstrate quality in order to participate in Medicare Program, (ie to be reimbursed for care given to Medicare patients).
- These goals were written and are interpreted with surgery or nursing in mind.
Goal 1: Improve the Accuracy of Patient Identification

1A Use at least two patient identifiers when:
- Administering medications/blood products
- Taking blood samples and other specimens
- Providing any other treatments or procedures
  - Use patient name and identifier, such as medical record number or birth date.
  - Consider using two person verification process during blood draw and reinjecting of labeled blood cells (red or white cells) for nuclear medicine procedure.
    - During blood draw, place sticker with patient name and identifier on wristband.
    - Remove wristband sticker and verify with sticker on the blood.
    - Have additional individual verify matching sticker, as well as NMT who will reinject blood cells.
Goal 1: Improve the Accuracy of Patient Identification

- At each juncture in the care of every patient, the patient must be re-identified
  - Prior to transport to new department
  - During initial contact within Imaging
  - During handoff between imaging personnel
  - Prior to the taking of blood or other samples
  - Prior to administration of any medication, contrast or radiopharmaceutical
  - Prior to any diagnostic or therapeutic procedure
Goal 1: Improve the Accuracy of Patient Identification

1B Prior to start of any invasive procedure, conduct final verification process to confirm correct patient, procedure, and site, using active communication techniques.

- Define invasive and identify invasive procedures.
- Include patient identification in “Time Out” process.
  - 2006 – 26 percent non-compliance rate with “Time Out”
- Active communication means to literally have everyone involved in case stop what they are doing to participate in “Time Out”.

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Goal 2: Improve the Effectiveness of Communication Among Caregivers

2A For verbal/telephone orders or for reporting critical test results over the phone:
   - Must verify reporting of complete order or test result by having the person receiving the order or test result “read-back” the complete order or test result.

- **Consider formal education and or competency.**
- **Who is performing tasks?**
  - *File room, receptionist or technologist verses physician, PA or NP?*
    - **Documentation of “read back” on orders**
Goal 2: Improve the Effectiveness of Communication Among Caregivers

2B Standardize a list of abbreviations, acronyms, symbols and dose designations that are not to be used throughout the organization.

- Consider performing periodic chart reviews
  - U (Unit)
  - IU (International Unit)
  - Q.D., QD, q.d., qd (daily)
  - Q.O.D., QOD, q.o.d, qod (every other day)
  - Trailing zero (X.0 mg)
  - MS, MSO4, MgSO4
Goal 2: Improve the Effectiveness of Communication Among Caregivers

- Additional: For possible future inclusion:
  - > (greater than)
  - < (less than)
  - Abbreviations for drug names
  - Apothecary units
  - @
  - cc
  - µg
Goal 2: Improve the Effectiveness of Communication Among Caregivers

2C Measure, assess and, if appropriate, take action to improve the timeliness of reporting, and the timeliness of receipt by the responsible licensed caregiver of critical test results and values.

- Manual verses Automatic/Electronic
  - Documentation in Radiology report?
  - Data collection and tracking?
  - Mechanism to improve timeliness?

- Critical Test Results verses Critical Test
Goal 2: Improve the Effectiveness of Communication Among Caregivers

- **Critical Test Results** – Imaging Services must identify the procedures or results that would follow Critical Testing Reporting Policies as well as threshold amount of time for delivering results to ordering physician.
  - What is TAT threshold for STAT, ASAP procedures and how are these procedures handled different than routine studies
Goal 2: Improve the Effectiveness of Communication Among Caregivers

2E Implement a standardized approach to “hand-off” communications, including an opportunity to ask and respond to questions.

- Follow house-wide nursing mechanism
- What about transfers between 2 modalities?
- Chart form or verbal process?
- What to do if process not followed?
- Example: Ticket to Ride
- Cannot not fill out portions of “ticket” a head of time (RN contact information, etc)
Goal 3: Improve the Safety of Using Medications

3C Identify and, at minimum, annually review a list of look-alike/sound-alike drugs used, and take action to prevent errors involving the interchange of these drugs.

- Identify formulary (medication) list of medications used in department and share with Pharmacy.
  - Be sure to include meds ordered from outside sources and direct shipped.
  - Contrast, radiopharmaceuticals, adjunctive meds
- Store different strengths of heparin and insulin on different shelves.
- Ionic contrast – Mark/highlight “Not for Intrathecal Use”
Goal 3: Improve the Safety of Using Medications

3D Label all medications, medication containers (e.g., syringes, medicine cups, basins), and other solutions on and off the sterile field in any surgical/procedural setting.

- Medication = Prescription and sample medications, herbal remedies, vitamins, nutraceuticals, OTC, vaccines, diagnostic contrast agents, IV solutions, radiopharmaceuticals/radionuclides, blood derivatives.
  - Oral, rectal, IV, intracavitary contrast media
  - Echo contrast
  - Radiopharmaceuticals
  - Adjunctive meds
Goal 3: Improve the Safety of Using Medications

- Any medication/chemical that has been transferred from primary to secondary container

- Label to include:
  - Drug name, strength, amount (if not apparent from the container)
  - Expiration date when not used within 24 hours
  - Expiration time when expiration occurs in less than 24 hours
  - The date prepared and the diluent for all compounded IV admixtures
Goal 3: Improve the Safety of Using Medications

- **Follow all house-wide policies on medication use and storage.**
  - Multi-use vials must be dated with time when opened
  - Opened saline vials/bags used for multi-use are good for 24 hours upon spiking
  - Consider using special one use spike for saline to load CT contrast auto-injector

- **IV Contrast and warmers**
  - Warmer logs, similar to refrigerator logs and policy
  - Follow manufacturer’s recommendations for storage and warming
  - Stock rotation in warmer with dating of vials
Goal 3: Improve the Safety of Using Medications

3E Reduce the likelihood of patient harm associated with the use of anticoagulation therapy.

- Question use of heparinized saline flushes
- Ensure all heparin administration is documented in medical record, even heparin use that is “protocoled”
- Beware of complications to anticoagulant overuse
- Educate all staff, especially Radiology nursing and interventional staff
Goal 7: Reduce the Risk of Healthcare Associated Infections (HAI)

7A Comply with current World Health Organization (WHO) or Centers for Disease Control and Prevention (CDC) hand hygiene guidelines.

- How to measure compliance? Direct observation verses volume of alcohol based hand rubs.

7B Manage as sentinel events all identified cases of unanticipated death or major permanent loss of function associated with a healthcare-associated infection.
Goal 8: Accurately and Completely Reconcile Medications

8A There is a process for comparing the patient’s current medications with those ordered for the patient while under the care of the organization.

- Manual paper process verses electronic process?
- Role of technologists in Med Rec?
- Metformin based medications
  - Scheduling question (Diabetic verses PCOS treatment)
- Medications with no known interactions used in imaging
  - IV and oral Contrast
  - Radiopharmaceuticals
  - Nuclear Medicine Adjunctives, such as CCK
Goal 8: Accurately and Completely Reconcile Medications

8B A complete list of the patient’s medications is communicated to the next provider of service when a patient is referred or transferred to another setting, service practitioner, or level of care within the organization. The complete list of medications is also provided to the patient on discharge from the facility.

- Fax list to next provider
- Online electronic list
Goal 9: Reduce the Risk of Patient Harm Resulting from Falls

9B Implement a fall reduction program, including an evaluation of the effectiveness of the program.

- Patient assessment tied to “hand-offs”
- Use of medical immobilization in department
- Two person verses one person transfers?
- Technologists that must leave the patient unattended
- Falls during standing chest x-rays
- ‘Helping a patient to the ground’ needs to reported as a fall
- Incident Report must be filled out, good idea to get medical assessment post fall
Goal 11: Reduce the Risk of Surgical Fires

11A Educate staff, including operating licensed independent practitioners and anesthesia providers, on how to control heat sources and manage fuels with enough time for patient preparation, and establish guidelines to minimize oxygen concentration under drapes.

- Consider educating Interventional Radiology staff and those who perform other procedures requiring anesthesia in the department.
- Beware of fire risk of alcohol based hand gels while touching electrical equipment and scanners.
Goal 13: Encourage Patient’s Active Involvement in their Own Care as a Patient Safety Strategy

13A Define and communicate the means for residents and their families to report concerns about safety and encourage them to do so.

- Concern: limiting access to patients, especially in restricted radiation and surgical areas of department
- Suggest online reporting mechanism
- How are patient complaints addressed, especially those that have patient safety concerns? Must ensure loop is closed.
Goal 16: Improve Recognition and Response to Changes in Patient’s Condition

16A The organization selects a suitable method that enables health care staff members to directly request additional assistance from a specialty trained individual(s) when the patient’s condition appears to be worsening.

- Different than rapid response teams.
- Average 6-12 hours delay from time patient begins to deteriorate to the arrest.
NPSGs Impact on Medical Imaging

- Keep in mind that these NPSGs were written with nursing and surgery in mind, and may or may not be applicable to imaging services.
- Each goal needs to be interpreted and adapted to each area within medical imaging.
- Always keep patient safety in mind.
NPSGs Impact on Medical Imaging

- Most likely need to “rethink” current processes.
- Consider implementation across all modalities and possibly across specialties.
- Educate the technical staff on the goals and invite them to participate in developing implementation strategies.
Resources

- TJC resources
  - www.jointcommission.org
    - FAQs
  - Comprehensive Accreditation Manual – Hospitals available on institutional intranet site (subscription required)
  - Monthly newsletters
    - Perspectives
Resources

- www.patientsafety.gov
- www.ahrq.gov
- www.ptsafty.org
- www.patientsafetyfirst.org
- www.fda.gov/cdrh/patientsafety
- www.aha.org/aha/key_issues/patient_safety
- www.do-online.esteotech.org
- www.hhnmag.com
Conclusion

- NPSGs were initiated to help solve major patient safety issues across the country.
- Not all goals pertain to Imaging, but majority do.
- NPSGs are intended to address basic core issues, such as communication, patient identification, falls and use of medications.
Conclusion

- The NPSGs are really more about improving patient care than compliance.
- Understand the intent of the goals before developing compliance strategies.
- Know that there is a process for submitting alternative approaches to meeting the NPSGs.
- TJC staff encourages anyone to contact them with questions, requesting clarification.
Conclusion

- Familiarize yourself with the NPSGs.
- Keep patient safety in mind and never knowingly jeopardize the care of your patient, even if you notice something that is “not your job”.
- It is everyone’s job to protect our patients from harm.
Questions?

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